DEVELOPMENT GATEWAY
Solutions that empower

UKaid
from the British people

Department for International Development

# Decision-Making and Data Use Landscaping

## Better Data, Better Decisions

**May 2017 to October 2018**


**Submitted by**

Development Gateway, Inc.

**Developed by**

Josh Powell, Sarah Orton-Vipond, Vinisha Bhatia, Annie Kilroy

# Table of Contents

# List of Acronyms

| | |
|---|---|
| **AIMS** | Aid Information Management System |
| **AMP** | Aid Management Platform |
| **BFM** | Beneficiary Feedback Mechanisms |
| **BSD** | Business Services Division |
| **CMP** | Centrally Managed Programmes |
| **DFID** | Department for International Development |
| **DG** | Development Gateway |
| **EMC** | Executive Management Committee |
| **EMIS** | Education Management Information System |
| **EPIC** | Emerging Policy, Innovation, Capability |
| **GPSDD** | Global Partnership for Sustainable Development |
| **HMIS** | Health Management Information System |
| **HoP** | Head of Practice |
| **IATI** | International Aid Transparency Initiative |
| **IP** | Implementing Partner |
| **KI** | Key Informant |
| **KII** | Key Informant Interview |
| **MI** | Management Information |
| **OECD** | Organisation for Economic Co-operation and Development |
| **PQ** | Parliamentary Question |
| **PQI** | Portfolio Quality Score |
| **RED** | Research and Evidence Division |
| **SDGs** | Sustainable Development Goals |
| **SM** | Senior Manager |
| **TPM** | Third Party Monitoring |
| **VFM** | Value for Money |
| **WASH** | Water, Sanitation and Hygiene |

# Executive Summary

As DFID aims to harness the Data Revolution, ensuring that data[1] drive decision-making, public accountability, and the achievement of the Sustainable Development Goals (SDGs), ensuring that systems, processes, and skills for data are aligned with these objectives is paramount. Across sector policy teams, country offices, and various analytical and technical cadres, different strengths and weaknesses, as well as needs and ambitions exist. To inform a strategic approach to data, as framed in its forthcoming Data Roadmap, DFID collaborated with Development Gateway to perform a Decision and Data Use Landscaping study. This report details lessons learned from approximately 60 interviews across 4 DFID country offices, all sector policy teams, senior managers, and various analytical and technical cadres and offices. Key lessons from this study are highlighted below.

## Key Decision-Making Processes

Each interviewee was asked to list 2-3 of the most important decisions that they take (for roles with direct decision-making authority) or inform (for those with advisory or technical roles), and then to describe the role of data in these decision processes. Through these interviews, clear patterns emerged, including that data use is highest during design (e.g. Business Case and Portfolio Strategy Refresh) processes, before declining throughout the programme/portfolio implementation and monitoring cycle. Table 1 below provides an overview of data use across these processes.

## Use of Internal and External Data

DFID staff report higher levels of satisfaction with their use of internal data (typically rated 7/10) compared to external data (typically rated 4/10). Internal data use centres on spend and high-level results (e.g. portfolio quality scores – PQIs – or headline indicators), together with overall programme risk ratings. Users expressed enthusiasm for improvements to the Aid Management Platforom (AMP) and management information (MI) tools in recent years, and a desire for additional training to understand which tools to use for which purposes. Ambition for increased use of Value for Money (VFM), results frameworks, and disaggregated risk profiles at both programme and portfolio level were frequently voiced. However, DFID staff reported challenges in using VFM data (see Annex 1 on frontier issues). As DFID increasingly works in Fragile and Conflict-Affected States, the ability of DFID staff to verify implementing partner results data is limited, requiring continued innovation in the use of beneficiary feedback and third party monitoring.

External data use is largely restricted to the design and planning stages, and centres on trusted international data sources, particularly in sector policy teams. In country offices, official statistics and government administrative data are also used, although the sourcing and quality of these data present significant challenges to stats advisors and programme staff. Data on the activities of other funders is also frequently sought, typically through OECD channels for benchmarking of DFID funding levels. However, interest in having more real-time information on which programmes are taking place in a given sector/country suggest potential for increased use of IATI data.

1. For this paper, we define data as both quantitative and qualitative information captured in DFID systems (internal data) or obtained from third parties (external data) including international sources (UN Agencies, World Bank, etc.) and partner country government sources (official statistics, administrative data systems). We distinguish "data" from "evidence", which we define as research, evaluations, or synthesised analysis (which may ultimately be built upon data).

## TABLE 1: DATA USE IN KEY DECISION-MAKING PROCESSES

| Decision Type | Decision Description | Decision-Making Stakeholders[2] | Level of Internal Data Use | Level of External Data Use | Key Data Use Gaps and Opportunities |
|---|---|---|---|---|---|
| Programme Design | Research, design, and approval of business case to define programme objectives and implementation approach | Programme staff (design), advisors, manager (review), portfolio strategist (approval) | High: DFID spend by sector/country, list of existing programmes | High: Indicators of need (e.g. primary school enrollment), activities of other funders | Logframe results of peer programmes, benchmarking data for unit costs (value for money) |
| Programme Annual Reviews | Formal review of progress made toward achieving programme objectives and monitoring of programme expenditure | Programme staff (reporting), advisors, manager (oversight), portfolio strategist (oversight) | High: Programme spend, programme results (logframe indicators) | Low: Occasional situational analysis to assess changes to implementation context | Ambition to expand beyond limited use of VfM data, third party monitoring, beneficiary feedback, and external data |
| Portfolio Strategy Refresh | Periodic (e.g. 5-year) process to define sector/ country priorities, set spending targets, and define key indicators | Portfolio strategist (design), advisors, organisational strategist (guidance on objectives, approval) | High: DFID spend by sector/country, list of existing programmes, selected programme results | High: "Canonical" international data sources, household surveys, research data | |
| Portfolio Stock-Takes | Periodic (e.g. quarterly) monitoring of sector/ country strategy implementation and review of selected programmes | Portfolio strategist (coordinates), manager (oversight), programme staff (report), advisors (analyse) | Moderate: DFID portfolio spend, programme quality indicator scores, risk, selected programme results | Low | Gaps: External data on implementing environment, activities of other funders, VfM data, beneficiary feedback |
| Learning Across Programmes | Extract lessons from business cases, annual reviews, or evaluations to inform programme design or portfolio strategy | Portfolio strategist, organisational strategist, programme teams, advisors | Low: Annual reviews, programme quality indicators, programme results | Low | Gaps: Methods for identifying "peer programmes", ability to review results of multiple programmes |

2. See Annex 2 for description of user roles.

## User Needs

Specific needs voiced by DFID staff centred on:

- Data trainings, with an emphasis on understanding how and where to find data, and to assess the quality of external data.
- Increased communication around MI, as users struggle to stay abreast of the latest tools and features.
- Creation of an internal data dictionary to ensure a common understanding of data fields
- Creation of an external data catalog to crowdsource information on data availability, coverage, and quality.
- Tools to analyse performance at a portfolio level (see below), and to easily identify key lessons learned from annual review processes.
- Automation of routine analysis in order to free time of analytical cadres to support advanced analysis, which is frequently outsourced due to overwhelmed internal resources.

## Portfolio Analysis

DFID staff at all levels voiced a need for more strategic use of data to monitor portfolio-level performance, and to ensure alignment with portfolio strategy. Several specific use cases for portfolio analysis using automated dashboards emerged, including portfolio stock-takes, on-demand information on spending levels and allocation, learning across programmes, strategy formulation, and responding to data requests. Specific data types needed to meet these uses include: financial, results, VFM, risk, implementing partner, external data on needs, and external data on other funders. Some of these data (e.g. financial and risk) are readily available, others are being expanded by the AMP and MI team but require updated reporting processes (e.g. risk, results, implementing partner), while others require further analysis and investment (VFM, external data).

## Conclusion

DFID is appropriately considered as a leader in data for decision-making. However, the Landscaping Study uncovered a number of gaps and areas where deeper investments could create a leap ahead in the use of results data, VFM, and external data to develop a deeper understanding of DFID's portfolio and to drive more effective targeting and implementation. Deepened collaboration between analytical cadres and the MI team can create this leap through the strategic deployment of tools, training, processes, and innovation to match the needs uncovered through this study.

# I. Introduction

## I. Overview and Purpose of this Study

DFID has established a reputation as a leader in data-driven decision-making among development agencies globally. A focus on pragmatic use of data and evidence in programme design and implementation, as reflected in DFID's SMART Rules, and strong commitment to enhancing partner country government statistical capacity demonstrate the priority DFID places on data for development. Across country offices and sector policy teams, innovation in data has been taking place, although often in uncoordinated and potentially duplicative ways. In response to these opportunities, DFID's Research and Evidence Division (RED) is preparing a Data Roadmap with three goal-oriented pillars, building upon a foundation of data capability (pillar 4).


The aim of the Data Roadmap is to set DFID's vision for a more strategic and coordinated approach to data within each pillar, aligning the capacity and strategy of RED, Business Services Division/ Management Information (BSD/MI), EPIC, and the Learning Group with the need for innovation and responsiveness to the context of country office and sector policy teams. To better understand these needs, DFID and Development Gateway (DG) partnered to perform an in-depth study of existing decision-making processes and data use across DFID[3]. This study incorporates approximately 60 in-depth key informant interviews (KIIs), including approximately 30 country office key informants (KIs) across four countries and approximately 30 sector policy and executive management committee (EMC) KIs. KIIs outlined priority decision-making made or informed by the work of DFID staff KIs, examined which data sources (both internal and external to DFID) are frequently used, how and when those data are used, and which barriers to greater data use (e.g. trainings, tools, time) should be prioritised in the Data Roadmap. A particular focus was paid to the role of portfolio analysis to inform ongoing efforts by the RED and MI teams to meet internal demand.

### II. Decision-Making Processes & Data

Interviewees at all levels of DFID were asked to identify and detail the most important decision-making processes for which they are responsible, or into which their analysis and advice are fed. After describing the process through which these decisions are made – including which inputs are most valuable and which stakeholders are engaged – follow-on questions were asked to specifically identify the role of data at key moments in each decision-making process. Building upon an understanding of these decision-making processes, staff explained where and how data are used, where data use is desired but impractical or impossible, and where data use is neither encouraged nor expected. This section analyses the key decisions, examining challenges, positive trends, and opportunities across different types of decision-makers in DFID.

3. DG's support to DFID is made possible by a grant from the Bill & Melinda Gates Foundation to DG's Results Data Initiative.

# II. Decision-Making Processes & Data

Interviewees at all levels of DFID were asked to identify and detail the most important decision-making processes for which they are responsible, or into which their analysis and advice are fed. After describing the process through which these decisions are made – including which inputs are most valuable and which stakeholders are engaged – follow-on questions were asked to specifically identify the role of data at key moments in each decision-making process. Building upon an understanding of these decision-making processes, staff explained where and how data are used, where data use is desired but impractical or impossible, and where data use is neither encouraged nor expected. This section analyses the key decisions, examining challenges, positive trends, and opportunities across different types of decision-makers in DFID.

## II.1 Data Use in the Programme Cycle

At its most basic level, the DFID programmatic process follows a cyclical process of identifying a programme area, designing the programme and business case, approval of the programme, implementation, ongoing monitoring and annual review, (for many programmes) adaptation based upon monitoring of results or changes in the operating environment, programme conclusion, and evaluation. ***Data are most frequently used in the design and development process as well as during annual review and final evaluation activities; internal and external data are used to make the case for and support the design of new programmes.***

### II.1.1 Programme Design and Development

Data are most consistently used, both at the central and country office levels, in the programme design and development process. As the initial foundation of DFID programming, the design process by programme teams requires internal and external data to determine appropriate size, scope, delivery methodology, and potential risk. ***Data use in developing these elements varies on the feasibility across sectors of determining quantifiable measurements and baselines, such as maternal health versus governance.***

Senior managers (SMs) also use data most heavily during the business case development and approval processes, with particular emphasis on value for money (VfM), results frameworks, and fit with portfolio (sector or country) strategic focus. Business cases are often used throughout the lifecycle of a programme; many SMs continue to reference business cases for information long after approval. SMs stress the importance of considering the data in terms of the local context instead of applying "best practices" with broad strokes. For this reason, decisions on individual programme targeting often require in-depth quantitative and qualitative information from local sources on the ground. This information typically gets reported up to SMs and country heads by country office staff, sector advisors, results advisors, and partner organizations.

#### II.1.1.1 External Data

***In country offices, government administrative data systems (e.g. HMIS, EMIS, AIMS, etc.) are used only when systems are accessible to and trusted by DFID staff (i.e. staff believe that data are up-to-date, complete, and that appropriate data quality assurance mechanisms are in place). Across both sector policy teams and country offices, multilateral data (e.g. UN, World Bank, etc.) are widely cited in business cases and are considered more trusted than most national government data sources.***

## TABLE 1: DATA USE IN KEY DECISION-MAKING PROCESSES

| Decision Type | Decision Description | Decision-Making Stakeholders[4] | Level of Internal Data Use | Level of External Data Use | Key Data Use Gaps and Opportunities |
|---|---|---|---|---|---|
| Programme Design | Research, design, and approval of business case to define programme objectives and implementation approach | Programme staff (design), advisors, manager (review), portfolio strategist (approval) | High: DFID spend by sector/country, list of existing programmes | High: Indicators of need (e.g. primary school enrollment), activities of other funders | Logframe results of peer programmes, benchmarking data for unit costs (value for money) |
| Programme Annual Reviews | Formal review of progress made toward achieving programme objectives and monitoring of programme expenditure | Programme staff (reporting), advisors, manager (oversight), portfolio strategist (oversight) | High: Programme spend, programme results (logframe indicators) | Low: Occasional situational analysis to assess changes to implementation context | Ambition to expand beyond limited use of VfM data, third party monitoring, beneficiary feedback, and external data |
| Portfolio Strategy Refresh | Periodic (e.g. 5-year) process to define sector/ country priorities, set spending targets, and define key indicators | Portfolio strategist (design), advisors, organisational strategist (guidance on objectives, approval) | High: DFID spend by sector/country, list of existing programmes, selected programme results | High: "Canonical" international data sources, household surveys, research data | |
| Portfolio Stock-Takes | Periodic (e.g. quarterly) monitoring of sector/ country strategy implementation and review of selected programmes | Portfolio strategist (coordinates), manager (oversight), programme staff (report), advisors (analyse) | Moderate: DFID portfolio spend, programme quality indicator scores, risk, selected programme results | Low | Gaps: External data on implementing environment, activities of other funders, VfM data, beneficiary feedback |
| Learning Across Programmes | Extract lessons from business cases, annual reviews, or evaluations to inform programme design or portfolio strategy | Portfolio strategist, organisational strategist, programme teams, advisors | Low: Annual reviews, programme quality indicators, programme results | Low | Gaps: Methods for identifying "peer programmes", ability to review results of multiple programmes |

4. See Annex 2 for description of user roles.

### II.1.1.2 Value for Money

***Despite differences in preferred external data sources, bilateral and Centrally Managed Programmes (CMPs) reported similar use of internal data in the business case development process.*** Unit cost and VFM are the most commonly cited data gaps in the programme cycle for both SMs and programme staff. ***Despite difficulty in collecting, calculating, and comparing these data, unit cost and VFM continue to play an important role in discussions. However, many respondents cited the need for contextualising unit cost and VFM figures and warned against direct comparison because targeting the most vulnerable is often the most costly delivery option. While comparable methodologies for calculating unit costs are needed, these VFM metrics and unit costs need to be analysed with sensitivity to the implementation environments in mind.***

Unit costs are most commonly calculated in DFID sector teams where there is a clear understanding that these numbers should remain relative. ***While there are innovative methodologies for developing unit cost and VFM being surfaced, particularly through sector teams (e.g. WASH) working with implementing partners, the calculations are not standardised and methodological approaches are unclear throughout DFID.*** In general, adopting a sector-by-sector approach through a multi-disciplinary lens (e.g. sector policy experts, stats advisors, commercial advisors, and economic advisors) was considered to be the most promising way forward toward capturing reasonable VFM indicators and unit costs.

### II.1.1.3 Results Frameworks

Data are also used in the programme design phase to establish the baseline and M&E frameworks. Respondents indicated that at this phase they take stock of what data are needed against availability, quality, and validity. Programme teams frequently cater the programme design around being able to track forthcoming programme delivery. At times, during this phase if the right data are not available, DFID may commission additional data collection either through survey or additional support to the partner country's system to ensure that usable data are available.

## II.1.2 Annual Reviews

Nearly every staff interviewed interacts with annual reviews in some capacity. Annual reviews give teams an opportunity to formally review evidence, assess value for money, triangulate their data with external resources, and take a "step back" to look at trends and the larger context of their programmes. The implication is that outside of the annual review process, teams do not have the time or resources to perform these analyses on a rolling basis. Several teams we spoke with had implemented quarterly or even monthly reviews to supplement the Annual Review process on a smaller scale. These reviews were often referred to as "stock takes" or "pulse checks", and occurred most often at the country office level, with staff expressing that more frequent reviews helped to avoid surprises and identify problems sooner than during Annual Review.

Annual reviews are particularly useful for programmatic decisions and evaluating whether DFID is meeting the target indicators identified by the log frame. Annual reviews are often shared with partners before developing an action plan, as recommendations from these reviews are incorporated into future planning. SMs also use annual reviews to make decisions on future partnership engagement by evaluating whether potential partners can deliver based on past track records and value for money calculations.

We spoke with several staff who frequently use annual reviews (accessed via AMP) as a primary data source because that is the easiest way they know of to extract financial, results, and logframe data as opposed to pulling reports from DFID Analytics or Aries. However, this process is still quite tedious, and requires users to download the full report and extract the information manually. The search function for annual reviews was commonly referred to as "rubbish." Those that were most interested in learning and adapting programmes and policies generally agreed that ***"if lessons learned from annual reviews, log frames, and PQIs could be automated and saved in one place and that would save a lot of time."***

### II.1.2.1 Annual Reviews for Bilateral and Centrally Managed Programmes

For DFID programme monitoring, data from implementing partners is a crucial need, and frequent challenge. In particular, as DFID shifts its portfolio toward fragile and conflict-affected states, challenges in validating data quality and accuracy from implementing partners are driving new innovations in third party monitoring through independent M&E contracts. ***However, these TPM processes are currently non-standard and there was significant interest from DFID teams in identifying good practice, and development of reliable and reusable tools.*** Some DFID staff also reported concerns of over-burdening their implementing partners with data reporting, particularly where indicators in logframes were perceived as less useful in driving decision-making processes. ***Finally, while the inclusion of logframe and risk profile data in AMP was broadly welcomed, the process of reporting this information from country office systems/ processes to centralised tools was of concern. The MI team's efforts on identifying good practices in TPM and beneficiary feedback, as well as ongoing efforts to integrate and learn from Syria's data collection, could be of keen interest to identify streamlined processes for synchronising data from country to central DFID systems.***

Sector teams expressed challenges and isolated progress in generating reliable data on VfM. For example, the WASH team has undergone multiple exercises to compare the unit cost of delivering similar interventions (e.g. boreholes) across countries and contexts. This process has required intensive engagement with implementing partners (IPs), beginning at the procurement phase by requiring prospective IPs to propose a methodology for calculating unit costs and indicators for tracking VfM. This has resulted in narrow advances within some programmes, but ***a lack of standard approaches and methodologies for calculating unit costs, and tools for comparing and sharing those costs, was frequently cited as a priority challenge.***

### II.1.2.2 Annual Reviews for Multilateral Programmes

In multilateral programmes, DFID staff report relying upon the results framework and expenditure data of the implementing partner, with data use typically limited to quarterly or semi-annual programme review meetings. Core contributions to multilaterals (e.g. Global Partnership for Education) typically result in institutional results framework review during board meetings, occasionally supplemented by review of external data for the sector (e.g. primary enrollment rates, infant mortality rates, etc.).

### II.1.2.3 Areas for Improvement in Data for Annual Reviews

While many employees welcome the annual review process and view it as a valuable way to monitor their progress, most senior managers express concern with the process's methodology. Because annual reviews are often a strong indication of whether or not a programme will continue to receive funding, staff reported concerns of potential biases of self-assessments. It was often referred to as a process of "grading our own report cards," and many feel that independent verification of annual reviews would improve the quality of the reports.

DFID staff are divided on the issue of comparability of annual reviews. On the one hand, some feel that DFID's ability to learn and adapt from the annual review process could be improved if the reports were more standardized and comparable. On the other hand, some feel that annual reviews, especially the components of value for money and cost-benefit analysis, require analysis based upon implementation context.

The use of annual reviews is a further concern of interviewed staff. For example, the annual review cycle is the only place where beneficiary feedback occurs within DFID processes, if at all. While many question the quality of the responses, the main challenge is how to use feedback loops for learning and adapting.

Respondents report referencing the Portfolio Quality Indicators only as required, and while they might use the PQIs to make small programmatic adjustments within problematic areas, they are not particularly used as a means for broader learning or adaptation. ***Generally, employees feel that with all the time and resources dedicated to the annual review process, more should be done to extract learning that can add value to DFID's larger strategy.***

## II.2 Data Use in Portfolio Management and Strategy

Beyond the individual programme level, interviewees report using data as an input into key strategic processes, as well as portfolio-level management. Primary data users in these processes include senior management, their supporting analytical cadre staff, policy advisers, and individual programme managers (on an ad hoc basis). Specific decision-making processes, outlined below, include defining sector/country strategy, performing portfolio-level stock-takes, and facilitating learning across programmes.

### TEXT BOX 1: SENIOR MANAGEMENT DATA PREFERENCES

**While Senior Managers are often interested in data and what it tells them, most do not want to be presented with raw data when making decisions. Instead, they look for synthesised analysis described by one DFID advisor as "tweets with links" – succinct summaries of major takeaways from programme implementation, evaluation, external research or other sources, backed with appropriate references and caveats. SMs can then dig deeper and assess the reliability of the evidence and data presented to them, if needed.**

**Visualizations that clearly illustrate the larger data narrative are much more helpful to SMs than spreadsheets of raw data, although many SMs suggest that "league tables" displaying relative rankings (e.g. of programmes, or of DFID spend vs other agencies, etc.) are valuable and easily interpretable. By the time the information reaches the SMs' desk, data have been largely processed and generalised, and most prefer it that way. As one SM put it, they want their advisors to "tell me the key takeaway, don't ask me to interpret raw data." This is not only because they are pressed for time, but also because they often need to be able to communicate their policy positions to audiences that are not necessarily concerned with such details. One drawback from this process is that analysts repeatedly mentioned that SMs have limited knowledge of available data sources and are challenged to interpret statistics independently. Analysts feel that this sometimes limits their ability to communicate their analyses with SMs effectively.**

### II.2.1 Defining Portfolio Strategy

Portfolio (country or sector) strategies are defined periodically, typically every 3-5 years, and set the direction for the country office or sector team in the design of new programmes, selection of results indicators, and allocation of resources.

Outside of programme cycle reporting, SMs consider a wide range of data when making policy decisions. First, they look to their ministers for broad policy priorities, which can be influenced by current events, the international political climate, and the larger strategy of the UK government. Senior managers then use external data on needs – almost exclusively from well-known international sources like the OECD, World Bank, and UN – and DFID spend data to make high-level decisions on targeting and strategy. Some SMs go further, seeking to be informed by the latest evidence on "what works", a thorough understanding of the local context, and DFID's comparative advantage vis a vis other potential funders.

(ministers' priorities + resources) ➡ (needs assessment + context) ➡ (comparative advantage + evidence)

Strategy refreshes for policy teams require intensive use of both internal and external data, with heavy curation and analysis from stats advisors. Internal spend data, intensive review of annual reports and programme evaluations, review of external research and evidence, investigation of funding and strategy of other key donors, and external data on regional and country needs are all included in the strategy development process. These typically flow into an ongoing dialogue with SM within the sector over a period of months, before resulting in synthesised documents providing recommendations and support for the new strategy (see senior management decision-making).

### II.2.1.1 External Data for Portfolio Strategy: Targeting Needs

Data on population demographics, needs assessments, and resource availabilities/constraints help SMs determine the appropriate scale and scope resources within portfolio strategies and for individual programmes. However, SMs struggle to make these high level decisions because securing reliable population estimates is very difficult, particularly during humanitarian crises. They cite this data gap as a critical barrier to accurate needs assessments, which in turn can affect the effectiveness and efficiency of programming and policy at all levels. For example, data gaps around disabled or otherwise marginalized populations have an impact on programming at the country office level, but also on the central policy level as well.

Additional external data used by SMs in defining portfolio strategy vary depending upon whether strategy is being determined at a country or a sector level. For country-level strategies, household survey data, official statistics, key international data sources (e.g. World Bank or UN), and – where feasible – government administrative data systems. Sector teams, by comparison, tend to focus in on a smaller set of canonical data from trusted international sources, prioritising comparability across countries and over time, reliability of data, and ease of access.

External data are widely considered less reliable and well-used than internal data (see Section III below), particularly at country level. To overcome this, SMs and policy advisors frequently rely on "good enough" estimates but note that they would appreciate DFID-wide standards for how their teams can get data to that point. Sometimes, the need is so great that they decide to commission data as part of their programming. In Pakistan, for example, the last government census was conducted in 1998, prompting the office to allocate a large outlay from this year's budget to fund and support the government on a new census. ***SMs have asked for more guidance on determining when data can be considered "good enough" and when it may be better to invest in data.***

Finally, external data on the funding and activities of other funders are typically reviewed during this process. These data typically come from the OECD DAC, rather than IATI (for reasons discussed in Section IV.2 below). These funding data are used both to benchmark DFID's funding levels against other agencies, and to identify gaps in funding that DFID can fill.

### II.2.1.2 Determining DFID's Comparative Advantage

In order to maximise potential impact under resource constraints, SMs also consider DFID's comparative advantage when setting their policy and programmatic agenda. This relies on the SMs ability to maintain extensive knowledge of DFID programming, spend data, and results indicators, which can be a very daunting task with data spread across various systems and sources. ***Because SMs and their teams often do not have the time to sift through Vault and manually extract information from annual reports, they typically gather this information through personal and professional networks within DFID. SMs spend time emailing other DFID teams to see what they are doing, what they know about a particular subject, and if they can connect them with someone else who might have more information.*** Although this kind of process could take weeks and places a burden on other teams, many SMs feel that this method is the most efficient way to stay abreast of the latest happenings in the development sphere and what DFID can do to maximize their contribution.

### II.2.1.3 Evidence and Learning

SMs emphasise the need for strategies – particularly sector strategies – to be deeply informed by evidence on "what works" through and results data from both DFID and other donors. Heads of country offices mostly rely on the central policy office to provide this information, but both sides report difficulty finding this valuable information in a readily usable format. ***The absence of systematically available data on results often prompts them to select a (potentially biased or unrepresentative) set of annual reviews/log frames of projects from which to learn.*** For example, there is no easy or systematic way to search through internal results data, and there is little guidance on how to assess the quality of available evidence (of both DFID and external projects).

For the most part, senior policy managers stay abreast of the latest evidence through their professional networks and familiarity with developments in their respective sectors. Some SMs will read evaluation reports, academic research, or other syntheses of evidence on what works in their given sector, rather than consulting DFID's own internal data. Time for this internal research is the common constraint. Even then, keeping up with the latest happenings can be difficult. ***As one manager described it, "I come across interesting evidence all the time. If I'm lucky, I'll remember it. If I'm really lucky, I'll get access to the full article. And if I'm really, really lucky, I'll actually have time to read it."***

### II.2.2 Portfolio Stock-Takes

Each SM interviewed noted that their team has a habit of periodic portfolio "stock-takes." These stock-takes take place at varying intervals – as frequently as monthly and as infrequently as six-monthly – and use varying methodologies. Based upon the discussions during stock-take meetings, problem programmes are often put on notice or given instructions on areas for improvement prior to their next annual review process. Additionally, gaps in funding, overall under-delivery of headline indicators, and other portfolio-level problems are identified and designated for deeper analysis and follow-up.

While no standard process or guidance for stock-takes exist, each reported using similar data and information to drive the stock-taking process (discussed in greater detail in Section VI.2 below).

- Aggregate spend (typically by sector within country offices, by country/region within sector teams)
- Programme results (typically beginning with PQI scores, then diving deeper for "problem programmes")
- External data on needs (similar data as used in portfolio strategy processes, although with less emphasis on external data during stock-takes than portfolio strategy processes)
- Risk data (typically by sector within country offices, by country/region within sector teams)
- Activities of other funders (although less frequently than used during portfolio strategy processes)

For SMs, deep dives on programme data are typically conducted when the performance of a programme is brought to their attention, which usually occurs during annual review or quarterly/semi-annual portfolio stock-taking. While some SMs use Portfolio Quality Indicator (PQI) scores to identify programmes in need of attention, many "already know" which programmes are struggling and do not have to rely on PQI data because they are actively communicating and involved with their teams. ***Overall, stock-taking meetings appear to focus in on programmes with poorer performance, although there is scope for more holistic analyses of portfolio performance (as described in the portfolio analysis section below).***

### II.2.3 Learning Across the Portfolio

A final strategic process identified during the Landscaping exercise is DFID's ongoing efforts to generate learning across its portfolio. This process combines elements of the evidence of "what works" (discussed in Section II.2.1.3 above), with efforts to extract key lessons and trends in results from DFID's own programme portfolio. While programme managers frequently search out individual "peer programmes" for learning, SMs and their analytical cadre staff are attempting to do this at a more holistic level: generating learning across sector and thematic (e.g. fragile states) areas, as well as designing processes to facilitate easier learning by programme staff.

Some SMs mentioned referring to Vault, but expressed frustration with having to download and skim an entire report rather than being able to search for keywords and pull out key findings. Vault's utility is further limited because it only contains results data on DFID projects and not those from other donors, which several SMs felt could be very valuable when making decisions. Interviewees also recommended a results tool that includes information on programme evaluations, results, and evidence that are external to DFID, so that DFID's programming can stay on the "cutting edge."

***Even when they are able to locate relevant information, SMs explain that the generalizability and usability of results data is hindered by a lack of clear definitions and a formal, DFID-wide process for understanding results data and adapting approaches based on results.*** Furthermore, such data are not always useful in policy making decisions because the coding and categorization of results data makes it hard to search for specific types of interventions (e.g. which climate resilience efforts are focusing on renewable energy vs. fossil fuel, or which teaching strategies or technologies are being used in education programs). ***For this reason, a common request among SMs is for AMP to include a more detailed concise summary of each project or programme, key takeaways from annual reviews, and a way to visualise and compare the results of different programmes against their targets.***

## II.3 Other Key Processes

### II.3.1 Human Resource Management

Finally, as sector advisors are distributed across country offices, with frequent rotation, turnover, and new skill requirements needed, Heads of Practice (HoPs) have critical needs to ensure that their teams are properly trained and efficiently allocated to match skills with country needs. HoPs reported significant challenges in accessing reliable and useful HR data, with one SM referring to HR data as "the weakest link" across DFID. Sector teams also present different challenges in HR management, with HoPs displaying a unique set of data needs. ***Specific data needs included anticipated vacancies and post rotations, staff skills and experience, and trainings undertaken by staff. Each sector team reported maintaining their own HR information in a spreadsheet as a workaround, although this approach still fell short of meeting HoP information needs.***

### II.3.2 Communicating Results

Overall, few SMs reported issues with communicating their results to other donors or the public because they feel that they have a thorough understanding of the programmes they are responsible for. However, SMs have a difficult time finding data to support their answers to parliamentary questions (PQs). Typically, PQs are directed to SMs first, then sent down to analysts and program/project managers rather than answered directly by senior staff. SMs and their supporting teams are often frustrated with the amount of time it takes them to answer even simple PQs. These questions typically revolve around DFID spending and programs at a broad portfolio level, which they are not comfortable extracting from Aries, DFID analytics, or AMP. Another pain point for senior managers in the communication of results data occurs within DFID. Results are gathered and reported as part of formal reporting requirements, but there is no system for discussing results or applying lessons learned. ***For example, many SMs feel that a great deal of time and resources are spent on annual reviews, but say their usefulness is limited because their measures do not allow for cross comparisons.***

# III. Use of Internal Data

Internal data are used throughout the programme cycle. The widest range of tools were reported being used in the beginning of the programme cycle, such as during business case development and programme design. Nearly all tools, Aries, AMP, DevTracker, DFID Analytics and Vault were reported as being used in this stage. In the later parts of the programme cycle, the most frequently used data are programme spend, logframe actuals vs target, and risk profiles – typically within the scope of annual reviews.

***Nearly all respondents noted that internal DFID systems have improved in recent years, yet the Department is unable to realise the potential of these data and tools as a whole because of a lack of awareness of availability, and challenges in combining data across multiple MI tools (e.g. combining spend and performance data or delivery chain data). Some of the gaps in interoperability of MI data sources may best be addressed through the portfolio analysis dashboards as described in section VI below, rather than through direct integration between the core tools.***

## III.1 Overview of Management Information Systems

### III.1.1 Aid Management Platform

Overall, AMP is widely used to access DFID spend data and for programme management purposes. Many staff note the improvements and increased flexibility. AMP allows non-finance users access to the basic spend data that they need without the challenges that DFID financial tools, such as Aries, present. ***Ongoing efforts to migrate logframe data to AMP, as well as recent efforts to move risk profile data to AMP, were widely welcomed as a way to meet this demand for searchable and actionable results data, although concerns over reporting requirements and adoption exist.***

Risk assessment information is newly available in AMP and was considered potentially useful for management purposes, including the development of risk profiles. ***However, standardisation of risk assessment information is a notable challenge to the trust in this data, as quantifiable benchmarks are not established throughout DFID. Additionally, adoption and reporting of risk data remains a challenge, as programme teams balance reporting responsibilities with other tasks.*** Stronger promotion of the benefits of the risk profile data and communication with programme teams may help to incentivise more rapid adoption.

Challenges do remain in mainstreaming AMP use beyond required reporting. While many respondents reported regularly using AMP to look at an individual DFID programme, ***a frequent complaint was the difficulty in comparing programmes or viewing aggregated data across several programmes in AMP (a frequently cited desired use case for AMP). The one frequent MIS request from senior managers and analysts alike was for a results dashboard that is focused more on outputs and outcomes than inputs (spend).*** Another common challenge with AMP (and other MI tools) use was around data standardisation – some users reported that the lack of standardised reporting affects their trust and usability of the data. For example, the lack of standardised supplier IDs (e.g. Adam Smith International or ASI) was frequently cited as a challenge in understanding implementing partner performance. At the country office level, AMP use is seen as more compliance-driven than for decision-making, although with some use for understanding financial modalities. ***Users working across countries in more policy-based roles find using AMP less useful for their purposes because data are programme focused. Outside of programme management roles, users in both SM and analyst roles are not sure of AMP's utility.***

### III.1.2 DFID Analytics

Most interviewees see the opportunity and potential of **DFID Analytics**, but this potential use is not often realised at either the country or central offices. DFID stats cadre roles are the most common and fluent users of DFID Analytics. Beyond the statistics roles, senior managers generally turn to AMP to fulfill their information needs because of AMP's perceived user-friendliness (compared to DFID Analytics) or request data from advisors who then frequently turn to DFID Analytics or AMP (depending upon level of comfort with Analytics). DFID country users have difficulty using Analytics because of the amount of time required to perform a query and access the data – some users reported up to 30 minutes for queries to run.

***The most commonly cited obstacles for DFID Analytics are a lack of training on how to navigate or use the system, the absence of a data dictionary to help users understand which measures should be used, and intimidation of having too many variables available and a complex excel template to adopt.*** Mini-Analytics may present opportunities for greater uptake, although its recent launch precluded inclusion in this analysis. ***There are examples of DFID Analytics being used for simple forecasting through review of trends, including advisors forecasting results and spend in relation to public manifesto commitments.*** **Canned Reports** are not largely used or acknowledged by DFID at either the country nor country levels, as most interviewees either were unaware of their existence, remained intimidated by the complexity of the reports, or insisted that their own needs required bespoke queries.

### III.1.3 Country Footprint

Country Footprint is used more in country offices than in central offices – with the objective of identifying centrally managed and multilateral programmes within their country of work – with ***feedback that its geographic focus should be supplemented with the ability to search by policy focus or sector to enable more effective and targeted use at both country and sector policy team levels.***

### III.1.4 DevTracker

Despite being initially built for a public audience, many DFID staff use **DevTracker** to more rapidly access project documentation. There are limitations with this due to search functionality challenges and project coding: users often need to know in great detail what they are looking for to get the most use of the tool. Additionally, some data are redacted prior to publication on DevTracker, meaning that it provides DFID staff with an incomplete picture of their programmes and data. Some senior respondents do have concern over the scrutiny that DFID faces through DevTracker, as information is presented without sufficient context for public review.

### III.1.5 Aries

There is limited use of **Aries** as an MI tool, and for those who have been exposed, the system is seen as very difficult and not practical for use. The scope of Aries use was debated among staff; while some respondents urged Aries to be limited to use only by the finance team, others believe that Aries training should be mandatory for all staff. Staff who have been at DFID for over 10 years were more likely to encourage mandatory training on Aries. It is seen as not useful by those in advisory roles because it does not assist with financial forecasting. ***It is clear that user friendliness and intuitiveness are barriers to adoption and use of Aries and that AMP and DFID Analytics are largely able to fill the role of Aries for non-finance staff.***

### III.1.6 Vault

**Vault** (or **Quest**, formerly serving the same function) is used by some to search for business case documents but not widely cited as a useful tool. Many employees on the policymaking side of DFID acknowledged that Vault is the current "tool" used for results data. However, they complain that it is merely a document repository, with limited search functions and no analysis functionality. Those who are able to find their relevant document within Vault have to download the file and read or skim the reports to extract the desired information.

### III.1.7 Yammer

Adoption of **Yammer** is still relatively low among DFID, yet among users, it is seen as an exceptionally useful tool for informally gathering information around internal knowledge and experience. This is especially true for those staff who have joined DFID more recently (e.g. within the past 2 years) and among statistics-focused roles. However, Yammer is not widely used in country offices.

## III.2 Common Challenges to MI System Use

Patterns emerged around the challenges preventing greater uptake of MI tools. ***There is a lack of clarity and understanding around which MI tool to use for what purpose; strong demand for more self-guided instructions for using existing tools to supplement in-person, facilitated training; need for data dictionaries; and a need for communication on introductions of new tools, and improvements to existing tools.***

Differences surface between staff who have joined DFID in the past several years and those who have been with DFID for many years in their given pain points of internal data use. ***Newer staff point to little or no training on where and how to access data relevant to their role or on data definitions within tools (a particular challenge cited in using DFID Analytics).*** Conversely, staff with longer tenure at DFID, particular those with greater than ten years, often cite the person or role they go to for data rather than the use of a tool. This relationship-based gathering of information is the case in both country offices and in central offices.

Calculating VfM is not a standardised process and there are no available MI tools that can be easily used for this function. Similarly, staff reported wanting to find reliable information on unit costs, but cited inconsistent definition of deliverables, and differences in the cost of delivery by context (e.g. rural vs urban, landlocked countries, etc.) as barriers to using these data. Additionally, a lack of centralised, online access to VfM and unit cost data means staff have little recourse beyond identifying similar programmes and reading annual reports or business cases to identify benchmarks. ***There is a strong need for clearer guidance on developing and reporting VfM and unit cost data, as well as MI tools for aggregating, searching, and analysing these data.***

# IV. Use of External Data

DFID employees at all levels rely on a wide variety of external data sources to make informed decisions. External data are primarily used for following applicable sector trends, informing needs assessments, and targeting strategies. The bulk of the data used for these scoping decisions are commissioned by country governments and the UN, but other sources include other aid agencies (GAC, USAID, Australia DFATD), multilateral development banks (e.g. World Bank, African and Asian Development Banks), and various partner agencies, think tanks, and NGOs (World Food Program, Center for Global Development, Overseas Development Institute).

***Those that do use external data on a day-to-day basis explained that it was "essential" to their day-to-day work, and not just during the business case and proposal phases.*** Programme managers, especially those in the country offices, require near real-time updates on project implementation from partners but do not currently have a system that facilitates this frequency. This is particularly true for humanitarian emergencies and fragile states, where the information can be much harder to get but is necessary nonetheless. During humanitarian crises, DFID staff reported relying on their on-the-ground knowledge and experience to make decisions based on rough estimates. In these situations, employees use "good enough" data that can come from news media resources, local informants, and their own judgement.

Not every job position requires seeking out external data on a regular basis, but even those who do not retrieve data directly often consider assessments of external data that are reported up to them. Several of those who said external data was not necessary for their day-to-day job mentioned that they found it useful to consider external data in order to benchmark DFID against other funders. ***Some at the policy and programme management level admitted that they should and would like to use more external data, but do not know where to start and simply do not have time to begin looking for it. Frequent requests were made for a catalog of external data, with the option of data users to provide commentary on quality, accessibility, and relevance.***

***Where external data are used in country offices, the process of combining internal and external data is typically non-standard and often heavily reliant upon the country's stats advisor, presenting a threat to long-term sustainability and methodological continuity as advisors rotate among posts. Country level tools for co-analysis of internal and external data were frequently cited as a need, complementing the expertise and curation of stats advisors locally.***

DFID country offices rely on external data to inform partnership strategies. For example, DFID country offices frequently co-design programs with government line ministries. For these partnerships, official government data are used to write business cases, monitor implementation, and develop reviews. Country offices also reported using data to inform conversations with other development partners during sector working groups. Specifically, they report using data types such as Demographic and Household Survey, school performance, and or World Bank's Ease of Doing Business scores.

## IV.1 Barriers to Using External Data

Overall, DFID employees reported having particular challenges in locating valuable external data. When prompted, nearly every employee described a laborious process of querying the internet for the right information. ***More often than not, staff felt that inquiring about the locations of datasets within their personal and professional networks was more efficient than trying to locate it themselves, even though waiting for a response could take weeks. When the right source is eventually located, staff often have to mine through a larger dataset in order to narrow it down to the relevant fields. Then data must be downloaded and transformed into a format that allows for measurements with DFID's and others' datasets. At this point, staff report that they have very little time left to thoroughly analyze data.***

***Across the board, employees expressed demand for a simple data directory or catalog that would link them to data sets that DFID employees agree to be reliable. One employee went so far as to say that a data directory "would be a holy grail" because it would save employees a considerable amount of time simply trying to locate usable data sources.*** Additionally, a place where analysts can store their work could also help to eliminate inconsistent messaging and duplications of effort. Often, staff across different departments and teams spend time downloading, transforming, and using the same data sets, but these are usually only stored within respective team sites (if they are stored at all). ***A platform to share this information that has already been transformed would be very valuable to data users and allow them to dedicate more time to meaningful analysis.***

### IV.1.1 Issues of Data Quality and Accuracy

Another barrier to efficient external data use is data quality. ***At all levels, DFID employees reported having little confidence that the external data they were using was of high quality, and were largely unsure of how to rectify these issues.*** Senior managers, who rarely have time to dive into the methodologies of the data they use in order to judge their quality, generally rely on the consensus of their team to determine quality. Those that do investigate the methodologies rely on their past experience to decide whether or not the data methodologies pass the "smell test." ***Others describe a method of triangulation with other sources to see if the numbers are consistent – if so, the quality is considered to be reliable.*** However, no interviewee was able to clearly explain how they overcame issues when the data failed these quality tests but were used as a basis for decision making anyway. ***Staff expressed a desire for more standardised guidance on how to evaluate data quality, and how to get from data that is low quality to data that is "good enough".***

At the country level, government data are at the heart of the external data that DFID uses. DHS surveys, reports from tax and revenue authorities, Local Health Information Systems, and data from various ministry administrative data systems. Many of the aforementioned data sets, including those from the World Bank, the UN, the OECD, and the IMF rely on data collected and reported by country governments. But these data are often incomplete, infrequent, vague, and/or subject to bias and manipulation. ***Staff often have a hard time overcoming these issues of data quality, and have called for more information on how to scrutinise data while still enabling it to be useful.*** Most programmes and country offices have resorted to commissioning the data collection themselves. For example, the country office in Pakistan has faced challenges in making short and long-term decisions because the government of Pakistan has not commissioned a census since 1998. The problems surrounding lack of reliable census data prompted the office to dedicate a significant portion of their budget on a new census, which will finally be carried out this year.

## IV.2 IATI Data

DFID employees also seek out external data to get a sense of "what others are doing" in their field when it comes to programme design, assessing partner capabilities, budgeting, forecasting, and approaching risk management. This information comes from NGOs, downstream partners, and other aid agencies. ***Notably, very few DFID staff mentioned using IATI as a data source on what others are doing, either gathering these data from the OECD DAC or by contacting key partners directly through informal channels. At the country office level, most DFID staff were unaware of IATI, while within the sector policy teams most staff were aware of IATI but elected not to use it due to either i) difficulty in accessing the data, ii) higher trust in OECD data, or iii) a feeling that their existing knowledge on what others are doing (through informal networks) was sufficient without accessing data directly.***

Overall, DFID employees prefer to coordinate directly with current partners rather than relying on IATI data, although these collaborations are difficult because systems are not currently designed to facilitate exchanges of information in real-time. ***Given the time lag of OECD DAC data (18-24 months) and lack of standardised access to country systems, IATI serves as a natural data source to meet these needs across countries. However, there are significant concerns of double counting in IATI data in aggregate, thus an approach of displaying IATI data to identify which other funders are active and general levels of funding, rather than as precise aggregate funding by country or sector would be most appropriate.***

# V. Overview of Needs to Enable Data Use

## V.1 Training

***New staff we spoke with frequently expressed frustration with the lack of onboarding training at the beginning of their post.*** These staff describe developing their own onboarding processes through trial and error and asking questions of colleagues. While several interviewees noted that on the job learning had its merits, there was general agreement that some basic trainings on DFID systems that were relevant to their post would have been useful. ***This was especially true for DFID Analytics and Aries, which were seen as less user-friendly and more nuanced than AMP or DevTracker.***

While employees reported being grateful that not all trainings are required, they stressed the importance of tailoring trainings to their specific needs and job responsibilities. For example, past trainings of Aries were not seen as useful because they were too theoretical (designed for an accountant with extensive financial background) and not relevant enough for everyday use (by programme managers with little financial background). They also noted that the lack of training requirements disincentivises employees from learning a new tool because attending the trainings takes a significant amount of time away from their day-to-day responsibilities. ***For example, many employees expressed a desire to receive training on Power BI, but they did not feel that they had the time.***

***One common suggestion from employees was to create and upload short, on-demand how-to videos and data definitions on DFID's intranet.*** This would allow DFID employees to select modules that would address their specific need without having to sit through entire sessions that are not relevant to the task at hand, saving them a great deal of time. This would also help relieve the burden on particular analysts or advisors tasked with being the "team expert" on a particular tool (because other employees feel they do not have time to attend the formal trainings).

***In addition to the demand for job-specific trainings, the need for trainings on how to be more "intelligent consumers of data" was echoed across all functions. One aspect of this would include guidance on how to assess the quality of certain data sources and particularly on how to overcome issues of poor data quality, as discussed above.*** Policy Advisors and Programme Managers would also like to see trainings on how to connect inputs and outputs to outcomes and impact in order to objectively assess the impact of project and evaluate their theory of change. Analysts recommended basic statistics training for senior managers as a way of strengthening the lines of communication between data users and data consumers. ***The employees we interviewed widely agreed that DFID employees at all levels should receive training on basic Excel formulas and shortcuts.***

***Trainings on data interpretation were also frequently cited as a key need, with several interviewees detailing instances where the same evidence and data, when presented to their team, might result in very different interpretations and decisions across team members.*** These trainings could streamline data interpretation, increase employee's confidence in their analysis, and reduce time spent explaining limitations and workarounds.

## V.2 Communication

Many long-term DFID employees admitted that they had very limited knowledge of the full capabilities of DFID's MI suite, and ***more often than not there were at least one or MI two tools that the employee had never heard of or seen before. DFID teams often rely on their own data management systems because they are unaware of DFID's tools or do not know how to use them properly.*** Not only does this result in a duplication of efforts, but many employees noted inconsistencies between reports coming from DFID teams and the information on the DFID-wide MI systems. These challenges are exacerbated for teams who face frequent data calls, as ad hoc surveys of team members for data are often used in lieu of MI data, resulting in one-off data collection exercises that may be inconsistent with official MI data.

Increased communication and advertising of DFID's MI tools could increase the use of these tools and prompt employees to seek out trainings they believe would be useful to their jobs. More communication, trainings, and the workshops and coding clubs especially could also address problems that DFID staff do not know they have. ***For example, one DFID staff explained that since she started using DFID Analytics, she only knew of one way to pull a certain report, and this method took a great deal of time and meticulous effort. It wasn't until she pulled the report in front of another colleague that she learned that there was a simple shortcut that made the process much faster. In another example, after receiving training on financial use of data, one manager was able to identify who among her staff made the most mistakes in inputting financial data and was able to improve the quality of her financial reporting as a result.***

While several employees praised Yammer, they noted that it may take weeks to get an answer to a question that typically requires an immediate response. In one example, an employee described having an issue with an MI tool while responding to a very time-sensitive PQ. She spent the better part of the day calling various IT/MI offices for support, and was eventually told that there was not enough time. Having dedicated points of contact for these kinds of one-off issues or questions, or a repository of self-help videos and tutorials, could increase employee's' level of confidence in MI tools.

## V.3 Tools

Overall, DFID employees felt that the tools available to them were meeting their needs, even though they expressed a limited understanding of their full potential. ***Participants repeatedly stressed that DFID relies on data narratives, and that any available tools should be able to illustrate those narratives.***

SMs in particular state, for consistency's sake, the fewer tools, the better. ***Consistency of data across systems was reported as a concern, with several examples of data users retrieving one figure from AMP, a different figure on Aries, and a third on DevTracker. Inconsistencies with how data are coded, defined, and standardized across countries and sectors also prohibit users ability to aggregate data quickly.*** These examples highlight that even well-designed tools are limited by the quality of the data within it, as well as the need for interoperability and navigability across MI tools. Data dictionaries and published standards for measurement can help mitigate these problems.

***A frequent request was for the one or two key takeaways from a programme's annual review to facilitate rapid learning within programmes, as well as comparison and learning across multiple programmes. DFID's internal data gaps largely stem from the ability to aggregate and compare data at a multi-programme or portfolio level; internal data systems satisfy programmatic data needs but aggregation and ability to slice across programmes are difficult with existing data and data systems. This is especially acute for data in cross-cutting sectors, such as nutrition and governance, which may be included as components in multiple programmes and are often difficult to parse out, causing teams turn to their own results platforms for analysis.***

## V.4 Time

Overwhelmingly, DFID employees reported that time available for analysis is the number one barrier to effective data use, mostly because so much of their time is spent on searching for and accessing relevant, timely, and high-quality data. ***Because time is such a limiting factor, many teams outsource their data analysis, which ultimately disincentivises data literacy and use among DFID staff. External and internal data directories and data dictionaries would free up a great deal of time for more thorough analysis, which employees feel would ultimately lead to more informed decisions.*** Additionally, duplications of effort could be avoided if analysts had a cloud-based platform to post and share analyses that they have done or datasets that have already been transformed for use within DFID's systems, tagged under the data directory.

## V.5 Gaps in Data Access

Overall, reliable population data are cited as the most common, and perhaps most significant, data gaps facing DFID employees. Reliable population estimates are essential to inform targeting and needs assessments and form denominators of key indicators, which can help maximize the program's impact and value-for-money. This is especially true for sectors that rely on real-time information, such as health and humanitarian assistance. While country offices explain that they typically have good relationships with their partner governments, it often takes a long time to receive usable population (and other) information from them. ***Continued work to strengthen partner governments' capacity for data collection, experimentation with innovative means of data collection (e.g. remote sensing), and establishing direct lines of communication and understand on data sharing are each crucial to overcome these challenges. Recent DFID investments in the Global Partnership for Sustainable Development Data (GPSDD) and the GRID partnership with the Bill & Melinda Gates Foundation are critical steps to strengthening capacity and expanding innovation in this space.***

There are also data access concerns within DFID's internal systems, in addition to the need for HR management information discussed above. ***One common demand from SMs, especially those in the central policy division, was for disaggregated data on programme-targeted population demographics (focus on marginalised populations) as well as granular classifications of programme functions (type of intervention/strategy).*** Placing this information in AMP among the high-level information on programmes would be welcomed, as it would allow users to visualize and strategize according to DFID's priorities and comparative advantage.

# VI. Portfolio Analysis

Portfolio analysis was a frequent topic of interest and specific focus area of this research, with specific needs varying slightly between central policy teams and country offices. While several would like to see indicators from the Annual Reviews, Portfolio Quality Indicators, and others stressed the importance of tools to understand broader impact. With such tools, programme managers would be able to see where DFID programmes and sectors are on or off track against certain targets, policy advisors would be able to extract lessons learned, and senior managers would be able to visualise high-level trends on what is working and what is not with respect to larger policy goals. It would also enable DFID employees to quickly and easily answer the oft-asked Parliamentary question, "what is DFID doing on X?" (a straightforward question that is often quite challenging to answer with the current systems). Additionally, improved coding methodologies and specificity could allow employees to assess the footprint and impact of specific types of programmatic approaches, which could strengthen DFID's ability to adapt and learn from results.

## VI.1 Use Cases for Portfolio Analysis

Several key use cases for portfolio analysis emerged:

***Quarterly/semi-annual stock-takes:*** Nearly all SMs – at both country and central levels – reported performing quarterly or semi-annual stock-taking exercises, with the aim of understanding the overall health of their portfolio in terms of risk, performance, and allocation. However, in practice, rather than a holistic analysis of whether portfolio performance is meeting strategic objectives, these meetings tended toward identification and discussion of at-risk programmes. A final use of stock-taking meetings is to assess HR needs within a team, particularly within sector policy units. Notably, these meetings varied across teams in terms of formality and focus, providing opportunity for greater standardisation or sharing of good practice in performing stock-taking exercises across DFID.

***On-demand information on total spending levels:*** Whether in response to data calls or as an on-demand status check, SMs reported wishing to have on-hand information on total portfolio spend across bilateral, centrally-managed, and multilateral programmes. There is also a desire to benchmark this spending against other funders. This need was cited as a particular challenge for cross-cutting sectors, including nutrition, due to inconsistent or insufficiently granular coding methodologies (e.g. consistent classification of spending by sector at the programme component level).

***Learning across programmes:*** Learning needs on VfM, unit costs, and indicator selection were frequently cited. These data are particularly scarce, with challenges around comparability across programmes and non-standard methods for calculating VfM or selecting indicators (see Annex 1).

***Strategy formulation:*** During sector strategy refreshes, a broad effort is taken to analyse internal spending data, aggregated programme results (typically limited to headline results), external data on needs across countries, footprint of other donors, and evidence on "what works." These analyses are currently heavily weighted toward spending, with many SMs expressing the need for greater results orientation.

***Resource allocation:*** Both during strategy refresh and in periodic stock-takes, SMs reported the need to understand the allocation of resources across countries, programme type (bilateral/CMP/multilateral), and intervention type (e.g. teacher training strategy employed, etc.), measured against indicators of need and political and strategic priorities. Comparison against other key funders was also of keen interest within this use case to benchmark DFID's contributions or identify gaps in existing funding where DFID may be able to fill and have a comparative advantage.

## VI.2 Data Types and Sources for Portfolio Analysis

Meeting each of these use cases requires a combination of multiple data types from a combination of several MI tools as well as external data sources. Bringing these data sources together within one dashboard (or potentially multiple dashboards to meet different use cases) presents significant opportunity for increased data use in portfolio-level decisions. Below, we discuss high priority data sources and the challenges for each.

***Financial Data:*** Existing portfolio analyses rely heavily upon financial data, which is a strength of current MI systems. Key challenges for financial data are ensuring disaggregation based upon geography (e.g. countries for CMPs and multilateral programmes), sector/theme (e.g. classification of nutrition spend), intervention type (e.g. teacher training vs textbook delivery), and target population (e.g. disabled or otherwise marginalised communities).

***Results Data:*** Current use of results data is largely limited to headline indicators, with SMs and analysts expressing a need for more systematic use of programme results data. ***Many staff mentioned that having a list of programmes with PQI scores and the ability to click through to view logframe results would help to facilitate learning and more in-depth understanding of portfolio performance.***

***Value for Money Data:*** VfM data was one of the most requested and least satisfactory internal data types. A lack of discoverability and standardisation were both widely cited as frustrating learning. ***A similar use case of being able to click through from a list of programmes within a dashboard to investigate which VfM indicators are being used and programme performance on these indicators was highlighted as a need at portfolio level.*** Most staff expressed hesitation in having "naive" aggregation or comparison of VfM data, rather wanting to identify similar programmes and assess their methodology to inform their own programme design.

***Risk Data:*** Risk data was desired at both aggregated and programme levels. In aggregate, teams want to view the overall risk profile of the portfolio, weighted by financial value. During strategy reviews and stock-taking meetings, this risk rating serves as a key input to ensuring a balanced portfolio. At the programme level, staff want to be able to click through from a list of programmes within a dashboard to examine the risk profile of individual programmes to facilitate learning and programme management.

***Implementing Partners:*** Staff expressed a desire to be able to identify which implementing partners were working within their sectors/countries in order to understand which IPs are responsible for high/low performing programmes, as well as to compare unit costs across IPs. Standardised naming and reference of IPs was cited as a barrier to this desired use.

***External Data on Needs:*** Each sector noted team consensus on canonical external data sources that are widely used and trusted. For example, the education team uses UNESCO data, WASH team use the joint monitoring programme and GLASS data, etc. These data sources (listed in Annex 2) vary in ease of access (e.g. API, open data, annual report PDFs, etc.), but serve as a crucial input to portfolio dashboards in support of targeting, strategy, learning, and stock-taking use cases. At the most basic, a data catalog with instructions for pulling these data sources into a portfolio dashboard would be beneficial. ***However, enabling users to access these data directly within the dashboard would be a step change in facilitating data use. Within country offices, external data needs are broader and far less predictable and standard. Thus, developing simple tools to enable users to upload and visualise external data sources should be pursued (e.g. by enabling spreadsheet uploads of indicators by state/district).***

***External Data on Other Funders:*** Staff frequently cited a need to access information on other funders, either to benchmark DFID's spending levels or to understand the broader environment in which DFID programming are being designed and implemented. Despite moderate levels of awareness of IATI, IATI use is currently minimal.

## VI.3 Design Considerations for Portfolio Analyses

Interviewees expressed enthusiasm for the existing pilots on portfolio analysis, while noting a few key considerations for long term, sustainable use. Addressing these considerations will help to ensure that dashboards sufficiently meet the needs and expectations of country offices and sector policy teams, and that these dashboards are used to increase the use of data to inform portfolio stock-take and refresh processes.

- Dashboards must be updated in real time, pulling data directly from internal APIs (with no need for running scripts or manual refresh) and external APIs where possible (for non-API external data, a collaboration between MI and sector/country stats advisors would be recommended with a clear data management plan).
- Beyond aggregate information, the ability to click through from a list of programmes to access risk, results, and VfM data within AMP is a crucial user experience.
- Availability of filters to drill down within dashboards into specific sectors, themes, intervention types, PQI score ranges, implementing partners, time periods, programme type (bilateral/CMP/multilateral), etc.
- Ability to navigate between global and country views without switching dashboards.

# VII. Conclusion

DFID is appropriately considered as a leader in data for decision-making. However, the Landscaping Study uncovered a number of gaps and areas where deeper investments could create a leap ahead in the use of results data, VFM, and external data to develop a deeper understanding of DFID's portfolio and to drive more effective targeting and implementation. Increased automation of routine analysis can drive a reallocation of analytical and policy advisors away from data gathering and cleaning toward high-value analysis in support of key decision-making processes. Deepened collaboration between analytical cadres and the MI team can create this leap through the continuous understanding of evolving user needs to inform the strategic deployment of tools, training, processes, and innovation to match the needs uncovered through this study.

# Annex 1: Frontier Issues

New staff we spoke with frequently expressed frustration with the lack of onboarding training at the beginning of their post. These staff describe developing their own onboarding processes through trial and error and asking questions of colleagues. While several interviewees noted that on the job learning had its merits, there was general agreement that some basic trainings on DFID systems that were relevant to their post would have been useful. This was especially true for DFID Analytics and Aries, which were seen as less user-friendly and more nuanced than AMP or DevTracker.

## Third Party Monitoring and Beneficiary Feedback

Beneficiary Feedback Mechanisms (BFM) and Third Party Monitoring (TPM) are considered "frontier" issue areas for DFID. The evidence for the practicality and use of these data collection mechanisms has increased in the past few years. However, these processes remain non-standard and the utility is not clear or uniform across DFID. The MI team has taken steps to identify good practices in TPM and BFM; this section explores how these efforts are playing out in DFID systems and key challenges to be addressed.

### Third Party Monitoring at DFID

TPM is not currently widely used throughout DFID CMPs and country offices but there is appetite for standardization and expansion, with specific emphasis on the time burden from internal validation of monitoring and results data. While the use of TPM is growing within DFID, many respondents had ideas for potential uses and an understanding of potential challenges that could arise from TPM, outlined below.

#### *Potential Uses of TPM*

Confirmation Bias Mitigation

Country offices have concerns with both optimism bias and confirmation bias in results reporting, especially in results data from IPs due to desires for contract extension and keeping reputations for future work. This confirmation bias issue also determines the standard that data are held to; data from contractors are held to a higher standard than those coming from government or internally from DFID.

There is focus on triangulation of data throughout DFID to mitigate the issue of confirmation bias. However there is rarely time for thorough examination of data quality among DFID staff. TPM is considered a potential data source for validation of these IP-sourced data. This is a similar use case to Payment-by-Results programs. These programs are considered susceptible to confirmation bias because the allocation of funds is reliant on performance.

Fragile/Conflict Environment

TPM has been used already at DFID in areas where there are security concerns limiting where staff or international IPs can travel to. Challenges around the quality of monitoring and results data is particularly vulnerable in these situations.

#### *Challenges to TPM*

A few challenges stand out as major obstacles for adoption of TPM as a common practice for DFID. Consistently, TPM is considered a high-cost method for monitoring, validation, and triangulation. Therefore, it is seen as useful and is typically only used to monitor high-cost or high-risk programmes and implementations. In fragile environments, there is concern over risk of fraud with TPM as DFID has difficulty validating the data from these monitoring activities. Additionally, there are some good practices being surfaced by programmes using TPM but there is no standard approach. These factors together prevent many at DFID from investing in TPM more fully, with most at DFID relying on internal triangulation of data using external sources.

### Beneficiary Feedback Mechanisms at DFID

Like TPM, there is appetite for expanded BFM use at DFID, based on the need for a better understanding of the impact of DFID programmes. While some uses of BFM data surfaced in DFID, there is clear concern on how these data can actually be used in practice.

*Determining the Beneficiary*

Beneficiary Feedback Mechanisms (BFM) are known throughout DFID but the utility and process for using BFM remains unclear throughout country offices, Whitehall, and Abercrombie house. Who the beneficiaries are differs throughout DFID. For example, CMP beneficiaries can range from partners who are receiving funding or constituents involved in a programme at the community level. How DFID engages with these groups can vary dramatically.

*When to Use BFM*

Sometimes, BFM in the form of community assessments are used to inform the needs assessment during the project design phase. BFMs have been used at DFID to surface gaps necessary to inform learning frameworks, for example.

Using BFM at the needs assessment and design stage is more common than during or following the implementation phase of programme as a form of results or impact data. Most agree that BFM can be useful if conducted in a thoroughly systematic process but is otherwise considered statistically irrelevant. Many at DFID view BFM data to carry risk of being biased or anecdotal. There also is not always a clear line of delivery directly from DFID's programme to the beneficiary, particularly in sectors and programmes that require a cross-sector approach.

Furthermore, it is not clear where anecdotal and qualitative, perceptual data fit into DFID's processes beyond the programme-level. This gap prevents DFID from using BFM for triangulation and verification purposes in implementation and evaluation. BFM does not take key contextual or political complexities into account, which is important for CMPs that work across countries. However, BFM is seen as an appropriate tool when DFID is working at the community level. There are established examples of DFID's use of BFM at the community level, such as a BFM pilot from 2014-2016[5], however the lack of clarity around where in existing DFID processes BFM best fits, as well as how to best use qualitative and perceptual feedback data present challenges to the larger adoption of BFM for DFID.

## Value for Money

Value for money was a constant high-priority topic across DFID teams, with high demand for good VfM data, and low confidence in calculating, comparing, accessing, or using those data. Programme staff reported both reporting pressure to calculate and provide VfM data, as well as genuine demand for good VfM data in order to benchmark programme unit costs and VfM against similar programmes.

### Existing Process

VfM indicators and unit costs are typically estimated during the business case process and established during the contracting process. Implementing partners are able to suggest VfM indicators and bid unit costs, which results in non-standard approaches across programmes. VfM indicators are largely driven by feasibility and measurabiliy, and are often focussed primarily upon the economy and efficiency of delivery, with less emphasis on the actual value and impact of the deliverable.

For some programmes, particularly in economic development and governance, where unit costs and benefits are often more diffuse, programmes teams often look to external data sources and evidence to establish VfM frameworks. These are often described as cost per level of the logframe (inputs, outputs, outcomes, impact) and are abstracted away from individual deliverables. In these cases, measuring the "value" relies on creating a proxy measure for the outocme of interest.

After establishing the VfM framework, VfM data are intended to be used to inform targeting decisions, programme re-design (e.g. which partners and delivery methods to use), and funding/budget approval decisions. These VfM data are also audited and reviewed by commercial advisors and internal audit functions. However, country offices reported that VfM is not as influential in decision-making because it is more of a retrospective assessment as part of the annual review process than a tool for forecasting results and driving adaptation.

5. http://feedbackmechanisms.org/public/files/BFM%20End-point%20Synthesis%20-%20full%20report.pdf

Interviewees also reported challenges in monitoring and validating VfM data reported by implementing partners during programme implementation, often relying upon external partners to perform this function. Data management of VfM data is also a key challenge. One interviewee expressed these two concerns as follows: ***"This is done well in some sectors, like education, but there are still huge gaps. Wherever we do have those gaps we usually call in a specialist and see if they can fill in those gaps with their knowledge and expertise, but once we've done that we don't keep that information anywhere we usually just keep it within that specific project rather than doing the preferred approach which would be to say 'this is our preferred approach to doing something in, say, public financial management'."***

## Key Challenges

Despite high demand for VfM data, DFID staff felt that existing VfM assessments are not currently useful due to challenges with:

- Identifying programme beneficiaries, particularly where multiple donors are providing assistance
- Comparing apples-to-apples in terms of the good/service provided, and the unit of measurement (e.g. unit cost per water point or unit cost per number of people reached by water point)
- Differences in reporting in terms of level of aggregation of programme budget and activities
- Comparisons across programme contexts and objectives
- Intricacies of individual sectors and differences in delivery models

Of the challenges in comparing across programmes and sectors, one KI stated: ***"This means that, across the portfolio, you can't necessarily say that the returns for this project are definitely higher than the returns on that project because they're modeled in very different ways across the different sectors. And because that's a big part of our decision making, that means that we have to make value judgements often"*** These value judgements become even harder to make as DFID strategically shifts toward fragile and conflict affected states, where implementation costs are higher and where beneficiaries may be more diffuse than in other implementing environments.

Finally, DFID programme staff expressed frustration in a lack of guidance on what is "good VfM?" How can programme teams anticipate changes or understand VfM risk? Where can DFID staff go to understand VfM from other programmes and learn from good practice?

## Recommendations

Based upon the challenges in using VfM data and existing processes for calculating and reporting, several key recommendations emerged. A methodological guidance note (or set of notes) is needed, along with allocation of analytical cadres to more fully support VfM strategy. Some key principles of this approach include:

- **Sector-by-sector approach** is needed to ensure that VfM guidance is responsive to the different delivery models, strategic objectives, and units of measurement across sector teams
- **Multidisciplinary teams** are needed, bringing together statistics, economic, and commercial advisers together with sector policy experts and programme managers
- **Comparison guidance** is needed to ensure that true peer programmes are compared. Specific comparison limitations include: type of country (e.g. fragile state vs middle income), rural vs urban, type of implementing partner (e.g. international vs local), etc.
- **Balance of VfM factors** to avoid overwhelming focus on unit costs and ensure that views of efficiency and effectiveness are prioritised, with emphasis on outcome measures, where possible
- **Programme types** may each require their own guidance, as bilateral and CMPs are likely to require far different methods than multilateral programmes
- **Centralise VfM data** to provide access to VfM indicators and unit costs across programmes. This does not necessarily require standardisation and aggregation of data, but instead can help programme managers to identify peer programmes and learn from the methods and indicators used

# Annex 2: List of Data Sources Mentioned by KIIs

| Type of Source | Data | Purpose/Use | Primary User | Priority |
|---|---|---|---|---|
| **Economic Development** | | | | |
| National government data | Self-reported tax, trade, and migration data from tax and Revenue Authorities, Ministries of Finance, and Offices of National Statistics | Country context, monitoring results | Both | High |
| Private-sector data | Information from stakeholders in country private sector | Country context, monitoring results | Country office | Low |
| Public research & evidence | Studies on tax incentives | Evidence-based programmedesign | Country office | Moderate |
| World Bank | Ease of Doing Business Index, Human Development Index, Growth Pattern Analysis, World Development Indicators, Labor market data, Let's Work! Data | Country context, monitoring results | Both | High |
| OECD | DAC data | Country context, monitoring results | Both | High |
| UN | ILO Stats Portal, UNCTAD data on capital flows | Country context, monitoring results | Both | High |
| Other Multilaterals | African Development Bank, Asian Development Bank, GAC, USAID, AusAID, | Evidence-based programmedesign | Country office | Moderate |
| Groningen Growth | Sector Productivity Level Database | Country context, monitoring results | Country office | Moderate |
| **Health, Family Planning, & Nutrition** | | | | |
| Government Data | Demographic & Health Surveys, Central Bureau of Statistics, Nutrition Landscape Info System (Nepal) | Country context, monitoring results | Country office | Moderate |
| Local Health Information Systems | District HISs in Pakistan, PORALG in Tanzania | Country context, monitoring results | Country office | Moderate |
| UN | Health Equity Database, GLAAS, FP 2020, WFP, UNFPA databases, UNICEF's Global Nutrition Report, UNHCR PORTAL, WHO, OECD-DAC | Country context, monitoring results | Both | High |

| Type of Source | Data | Purpose/Use | Primary User | Priority |
|---|---|---|---|---|
| **Health, Family Planning, & Nutrition** | | | | |
| Think tanks & research institutes | Center for Global Development, Overseas Development Institute, Institute of Health Metrics and Evaluation (GBD) | Evidence-based programmedesign | HQ | High |
| Open source | Local media, google, historical assessments | Country context | Both | Low |
| Implementing Partner | Partner projects, M&E self-reports, logframe indicators | Monitoring & Evaluation | Both | High |
| Other funders | USAID activities | Targeting | HQ | Moderate |
| **Education** | | | | |
| UN | UNESCO Global Education Monitoring Report, UIS Stats, Global | Country Context, Monitoring & Evaluation | Both | High |
| Government | Ministry of Education, local government reporting, DHS surveys | Country Context, Monitoring & Evaluation | Both | Moderate |
| Implementing Partners | Partner projects, M&E self-reports, logframe indicators | Country Context, Monitoring & Evaluation | Both | High |
| **GOSAC** | | | | |
| Think tanks & research institutes | Corruption Perception Index (Freedom House), Global Transparency Index, World Justice Project | Country context | HQ | High |
| Open source | Local media, google, historical assessments | Country context, monitoring results | HQ | Low |
| IMF | Fiscal accountability and sustainability data, info on public procurements and audits | Monitoring & Evaluation | HQ | High |
| Other funders | USAID, AusAid, Gates Foundation | Targeting | HQ | Moderate |

| Type of Source | Data | Purpose/Use | Primary User | Priority |
|---|---|---|---|---|
| **WASH** | | | | |
| UN | WHO/UNICEF Joint Monitoring Program, Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) | Targeting, budgeting and planning, programme implementation | HQ | High |
| Government | Geographic and demographic data on needs | Targeting, programme implementation | HQ | Moderate |
| OECD | DAC database | Country context | HQ | Moderate |
| Other funders | UNICEF, World Bank, other WASH implementers | Evidence-based programme design | HQ | Moderate |
| **Cross-sector** | | | | |
| Think tanks and research institutes | 3ie, Learning for Development, World Data Summit, Center for Global Development, Overseas Development Institute, My World Survey, IATI, academic publications | Evidence-based programmedesign | HQ | High |
| Other funders | Procurement data, past appraisals, partner info, risk management | Budgeting and Planning, programme implementation | Both | Moderate |