MONITORING AND EVALUATION SYSTEMS FOR DFID RESEARCH
CNTR 20080542
Final Report

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### Abbreviations

<table>
<thead>
<tr>
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<th>Description</th>
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<tbody>
<tr>
<td>AAA</td>
<td>Accra Agenda for Action</td>
</tr>
<tr>
<td>ASARECA</td>
<td>Association for Strengthening Agricultural Research in Eastern and Central Africa</td>
</tr>
<tr>
<td>CGIAR</td>
<td>Consultative Group on International Agricultural Research</td>
</tr>
<tr>
<td>CRD</td>
<td>Central Research Department (now called DFID Research)</td>
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<tr>
<td>DFID</td>
<td>Department for International Development</td>
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<td>IDRC</td>
<td>International Development Research Council</td>
</tr>
<tr>
<td>IDS</td>
<td>Institute for Development Studies</td>
</tr>
<tr>
<td>IFORD</td>
<td>International Forum of Research Donors</td>
</tr>
<tr>
<td>KAP</td>
<td>Knowledge and Practice</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>MTR</td>
<td>Mid-Term Review</td>
</tr>
<tr>
<td>OPM</td>
<td>Oxford Policy Management</td>
</tr>
<tr>
<td>PARC/IOD</td>
<td>Performance Assessment Resource Centre/ International Organisation Development</td>
</tr>
<tr>
<td>PDP</td>
<td>Product Development Partnership</td>
</tr>
<tr>
<td>PRC</td>
<td>Project Completion Report</td>
</tr>
<tr>
<td>PRD</td>
<td>Policy and Research Division</td>
</tr>
<tr>
<td>PRISM</td>
<td>Performance Reporting Information System for Management</td>
</tr>
<tr>
<td>RPC</td>
<td>Research Programme Consortium</td>
</tr>
<tr>
<td>RS</td>
<td>Research Strategy</td>
</tr>
<tr>
<td>R4D</td>
<td>Research for Development</td>
</tr>
<tr>
<td>SPIA</td>
<td>Standing Panel on Impact Assessment (CGIAR)</td>
</tr>
<tr>
<td>ToR</td>
<td>Terms of Reference</td>
</tr>
<tr>
<td>WIDER</td>
<td>World Institute for Development Economics Research</td>
</tr>
</tbody>
</table>
1 Introduction

1.1 Background

DFID launched a new Research Strategy (RS) in April 2008, which will programme £1 billion over five years, 2008-2013. This money will fund research through a number of different modalities: through directly contracted research contracts and research programme consortia, through funding multilateral and international research organisations and initiatives, in partnership with other international research funders, with the private sector and with other UK government departments and the UK Research Councils. There will also be support to research institutions in developing countries to both build capacity and empower these institutions to have a greater influence on research agendas.

The Research Strategy will focus on six themes: growth; sustainable agriculture, particularly in Africa; climate change; health; governance in challenging environments; and future challenges and opportunities. There will also be a strong communications section, to ensure that research results are widely disseminated, to a broad set of potential stakeholders and beneficiaries, using the most appropriate channels.

Such a large and diverse strategy, with so many different partners, requires a clear, but straightforward monitoring system, to ensure that the mix of areas of research and modalities of delivery is appropriate for the strategy’s objectives. OPM has been asked to develop a monitoring and evaluation framework which will allow DFID’s Policy and Research Division to assess the progress of research activities towards meeting the objectives set out in the RS.

1.2 Approach

The framework given below was developed after considerable consultation with DFID staff in the research division. Meetings were held with all the teams in October/November, and a workshop was held in December, which focussed on identifying indicators.

As a result of these discussions, it was decided that the consultants would focus on developing an overall framework for the RS, with around ten high-level indicators, addressing the overall results areas given in the RS. These would then be interpreted at the level of the six thematic areas, once the teams had developed log-frames.

The consultants were mindful of the limited resources available for M&E in the research department and have tried to identify indicators that are straightforward in both measurement and interpretation. They have looked at the indicators already used by DFID, by the programme research consortia and by DFID’s research partners to ensure that the M&E framework follows good practice.

1.3 Objectives of M&E System

Monitoring and Evaluation systems generally have a number of different objectives. The consultants perceive the following as the major objectives which the M&E system of the Research Strategy will address.

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When the assignment started, there were three thematic research teams, plus communications. In mid-December the teams were restructured to reflect the thematic areas highlighted in the RS.
• Reporting against the Research Strategy (RS) and the draft Results Framework it contains (pp44-45)

• Accountability for the funds expended by DFID Research against the RS

• Monitoring the performance of DFID Research, and research partners, to allow an assessment of whether the funds are being spent on appropriate areas to achieve the desired results, and to trigger an appropriate management response.

• Creating an evidence base, including a baseline, to enable evaluation of the RS as a whole, both in a mid term review, at the end of the RS period, and an ongoing plan for impact assessment.

• Learn lessons on how research can make a difference to people’s lives

• Generating information for Corporate Reporting, Divisional Performance and the DFID Departmental Strategic Objectives (DSO)

Indicators are identified at four different levels: input, output, outcome and impact. Identifying indicators at all levels of the implied results chain is necessary to enable DFID Research staff to monitor the implementation process and pinpoint areas where there are bottlenecks in the delivery of the four results areas, and which need more attention or a change of strategy to achieve the desired results (see next section for more detail).

There are clearly defined links between monitoring and evaluation. From discussions it seems clear that staff want a monitoring system that both provides them with the information necessary to manage their programmes effectively, but also to produce data that would be useful for subsequent impact evaluations. Evaluation\(^2\) appears necessary to report to Ministers at the Departmental level what has been achieved by the Strategy as a result of the significant increase in funds (justification both in absolute terms and relative to other departments), preferably at the level of impact and in terms of what has been learned.

\(^2\) As discussed later, this should be undertaken on a number of research grants, after projects have been completed. This should be complemented by specific impact studies, at a later date.
2 The Research Strategy objectives

The 2008 Research Strategy sets out the overall purpose of DFID’s research as “to make faster progress in fighting poverty and achieving the MDGs” by first…producing “new knowledge and technologies to tackle the most important development challenges…” and by helping “make sure that developing countries and the wider development community use the knowledge and technologies”.3

Progress is to be reported in four results areas:

- New policy knowledge created for developing countries, the international community and DFID
- Existing and new evidence better informs decision-making about international development
- New technologies developed and used in developing countries
- Capability to do and use research strengthened4

In addition the RS contains a number of specific commitments

- To increase funding for global research to £220 million by 2010/115
- To invest up to 30% of the research budget in making research available, accessible and useable through a range of means7
- To mainstream gender throughout directly funded research programmes and to make sure that gender issues are integrated into DFID supported multilateral research institutions and international research initiatives
- To meet the promise to double funding for agricultural research by 2010, but creating a better link between agriculture research and research on growth and climate change8
- To ensure that the use of disaggregated data (e.g. by sex, ethnicity, age etc) is part of everyday research practice
- To strengthen partnerships with developing countries and increase efforts to improve developing countries’ capacity to do, access and use research.
- To set up an International Climate Change Network and an International Growth Centre to help developing countries access high quality research and advisory services9

Some of these commitments are straightforward financial commitments which should be monitored either at divisional level or within the appropriate theme. Others are cross-cutting and should be reflected in the way that specific indicators are measured and reported.

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3 DFID Research Strategy, p. 17.
4 RS p. 44-45
5 RS p 13
6 This is tracked in the DFID Quarterly Management Report
7 RS p. 18
8 RS p 24
9 RS p 26
3 M&E Framework

Those involved with determining the impact of research have noted the difficulty of relating relatively modest inputs to outcomes that are subject to a very large number of other influences\(^{10}\). But in order to develop the proposed M&E framework, it is important that there is a good understanding of how the various inputs, which could be expenditure or staff time, translate into outputs, outcomes and impact, that is the assumed “results chain”. Such a model or “theory of change” will allow the identification of indicators at different points in the results chain to trace through what activities are being effective in what ways. This has the benefit of allowing DFID Research staff to trace any bottlenecks in achieving results more efficiently.

This approach led the consultants to start by developing “generic” indicators for the three “strategic results areas”, which are labelled for simplicity as “Policy, Technology and Capacity”\(^{11}\). These can then be broken down one step further into “production” (producing new policy knowledge, technology and capacity to do research) and “use” (using policy and technology-related research-based knowledge, and strengthening capacity to use research).

This gives a matrix of 6 cells:

**Figure 3.1 Disaggregation of RS Results Areas\(^{12}\)**

<table>
<thead>
<tr>
<th>Results Area 1: New Policy Knowledge Created</th>
<th>Results Area 2: Existing and new evidence better informs decision making</th>
<th>Results Area 3B: New technologies developed and used in LDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results Area 3a: New Technologies developed</td>
<td>Results Area 4b: Capability to use research strengthened</td>
<td>Results Area 4a: Capability to do research strengthened</td>
</tr>
</tbody>
</table>

\(^{10}\) This is clearly accepted in the Research Strategy. See paragraph 5.1 “It is not easy to measure the impact that research results have on development. In fact, it is even difficult to separate out those factors that actually result in change over time. This strategy accepts that individual research programmes rarely bring about change on their own. It is more likely that people will act on evidence that is built up over many years, in different contexts, once this has been communicated effectively. Even when research helps shape policy and practice, it can sometimes take years to see the benefits to poor people”.

\(^{11}\) DFID Strategic Purpose for DFID Research 2013 and beyond: Faster progress towards the Millennium Development Goals and poverty reduction as a result of knowledge and innovation

- RESULT S AREA 1 New policy knowledge created for developing countries, the international community and DFID
- RESULT S AREA 2 Existing and new evidence better informs decision-making about international development
- RESULT S AREA 3 New technologies developed and used in developing countries
- RESULTS AREA 4 Capability to do and use research strengthened

\(^{12}\) A more complex diagrammatic representation of the links between these results areas and the activities within the research strategy is given in Annex 1.
For particular purposes these cells could also be further broken down by audience type and location so that greater weight could be given to activities in developing countries. These cells map directly onto the four results areas identified in the research strategy, as indicated in the matrix (Figure 3.1) on the previous page. To avoid confusion, the framework will now refer only to the RS results areas. However, the underlying theory of change may be useful to DFID Research staff in order understand where the results chain may break down.

Although a general framework has been presented here, the details of this will be articulated in the thematic log frames.

Following consultation with DFID research staff the consultants have proposed a small number of high level indicators that will enable the department to prove what it has achieved as a result of the investment in the funds made available under the research strategy.

The indicators identified for these results areas are relatively simple and will, for the most part, emerge from existing programmes and practice. They are likely to be additive (eg numbers of paper across all themes), and could be weighted in more or less sophisticated ways to reflect (quality, cost, LDC involvement, African involvement etc).

This overall framework will be interpreted at the level of the six themes, to allow the development of log frames, on which appropriate theme specific indicators can be developed, which both address the specific nature of the work carried on in the themes, but also contribute to the measurement of the high-level indicators.

There is a considerable literature relating to evaluation in areas where causal connections between inputs and outcomes involve long chains (and many other factors as in complex social and innovation “systems”). Useful techniques have been developed and are now being implemented such as “outcome mapping” (IDRC) and “Contribution Analysis”13. If this is carried out at the theme levels it may well produce “intermediary” or “process indicators”. Turning now to the use of research, important elements in results areas 2 through 4, these pose much more of a problem both in terms of action and in terms of M and E. They also represent a major shift in thinking both within DFID Research and more importantly for those traditionally involved in the “production” of research-based knowledge (the strategic shift to relating at least some of DFID Research’s output to the needs of the rest of DFID has been described as the major shift in focus within the strategy).

During the course of this work two major responses have emerged. First it may well be that the easiest way to get indicators of the achievement of the Research Strategy at the high level of the Four Results Areas would be through a series of end user surveys. Modern electronics and the internet massively reduce the costs of such surveys and the analysis of their results14. Highly targeted electronic surveys would not only provide its own baseline, but it would also provide monitoring guidance (are we on the right track, what do need to do to improve our target).

However, DFID research staff have felt the costs involved in identifying the appropriate sample of contacts, combined with the probability of a low response rate, and the time to process the results make relying web-based surveys as the main approach to measuring the use of DFID funded research too costly and risky. Instead, it is proposed that information on

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13 See John Mayne, ILAC Brief Number 16, May 2006 (ILAC CGIAR).
14 See for instance Web monkey or the YouGovStone ‘Influentials Monitor’.
M&E Framework, DFID Research Strategy

final user satisfaction and use of DFID research results will be collected through tracking forwards and backwards for opinions on research funding using stakeholder mapping of the different research funding modalities and contacts provided by the teams.

Second, given the long time lag before research outputs in many areas can be expected to have an impact (for instance on poverty reduction) any M and E system of research is unlikely to be able to demonstrate the impact of the Research strategy within five years. If DFID Research wants to demonstrate impact, it will be necessary (a) to put in place baselines that will enable incremental impact to be determined at a later date, and may also require (b) the commissioning of special impact studies now of research that was funded by DFID say 10 years ago. This will be determined by each research team.

However, whatever the impact is achieved from past research it is clearly the case that a great deal more can be done to make more use of research in future. This is one of the main thrusts of the Research Strategy.

In the allocation of resources to M and E, and the selection of relevant indicators at strategic level it is suggested that the Department should be guided by consideration of the distribution of DFID Research’s resources between themes and instruments. The key indicators should be related to the main areas of spend and related to the main instruments chosen.

DFID Research staff should be aware that whatever types of indicator are used in the M&E framework, consideration will have to be given to unintended consequences and “gaming” (experience of the UK University Funding Council's Research Assessment Exercise provides ample warning of this15). Although some thematic groups will, by the nature of the work undertaken, tend to place more weight on some indicators than others, the high-level indicators address the main objectives of the RS, and interpretation of the results of the monitoring should try to ensure that there is not undue bias, for example to the production rather than the use of technology or policy research.

15 When universities’ research was given highest weighting in assessment, individual academics were valued on the basis of their published output. In some disciplines, only articles in key journals were counted towards this, and academic monographs were given no weighting, nor were textbooks. This resulted in competition for a few well published academics, who, it was thought, could raise a department’s RAE rating, and many were offered a combination of higher salaries with few teaching responsibilities. In some universities this led to a two-tier system with a few well-regarded high-fliers, who did not teach, and at the other end of the scale good teachers who became demotivated because they felt they were undervalued. Whether this was appropriate or not can be argued, but it was not the intention of the RAE.
4 High Level Indicators

4.1 Indicator definition and measurement

After the workshop held in December 2008, where there was considerable discussion with DFID staff of the practicality and usefulness of a number of proposed indicators, agreement was reached on 13-14 indicators. After further work by the consultants these have been reduced to 10, plus a cross-cutting process indicator (11).

These are deliberately a limited number of simple indicators. As the M&E system is put into practice, and as the information requirements of DFID evolve, it should be possible to add greater sophistication.

Table 4.1 summarises the indicators proposed. A more detailed description of each indicator and an approach to measurement is given below the table. This also addresses any additional issues likely to arise. Indicators, where possible, have been defined as SMART (specific, measurable, achievable, realistic and timely). In some cases, time frames and targets should be set by DFID staff, and this is discussed more fully in Section 6.

Table 4.1 Indicators

<table>
<thead>
<tr>
<th>Results Area</th>
<th>Indicator and Target16</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: New Policy Knowledge Created for developing countries, the international community and DFID</td>
<td>1. Composite publications index shows increase in quality and relevance in line with DFID spend</td>
</tr>
<tr>
<td>2: Existing and new evidence better informs decision making about international development</td>
<td>2. End-user opinions about DFID funded research shows improvement.</td>
</tr>
<tr>
<td></td>
<td>3. Coverage in local and international infomedia across all programmes increases in line with research communication spend.</td>
</tr>
<tr>
<td></td>
<td>4. Indicator utilising web hits on R4D17</td>
</tr>
<tr>
<td>3: New Technologies developed and used in developing countries</td>
<td>5. Number of technologies/ interventions developed (output) of relevance to the poor, disaggregated by gender, rising in line with DFID spend</td>
</tr>
<tr>
<td></td>
<td>6. Number of users, both men and women, of new technologies developed with DFID funding over the previous 10 years increases in line with research spend.</td>
</tr>
<tr>
<td></td>
<td>7. % of projects and programmes on course to deliver expected</td>
</tr>
</tbody>
</table>

16 Targets should be set for all these indicators, but, in some cases, these will be dependent on the calculation of a baseline.

17 This is an indicator included in the corporate reporting framework, as DSO4 13 a
Impacts to both men and women by 2013.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
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</table>
| 4 | Capability of Southern partners to do and use research strengthened | 8. Increasing proportion of total DFID budget spent in developing country institutions 9. Sustainability of DFID funded research institutions measured by proportion of budget raised from non-DFID sources reaches x% by end of five years 10. At least x % of DFID funded published research is available in open-access sources by 2013

Cross-sectoral, gender | 11. % of funding arrangements with a specific gender framework reach 100% within two years.

**Indicator 1** *The composite publication indicator must increase in proportion with DFID research spend*

The principle of using a research impact indicator that covers a range of publications is widely accepted and the version we propose draws on an indicator used by the Science Council of the CGIAR to assess Centre impacts. We have chosen weights that value both academic and policy publications but recognise that not everyone will agree with the weights chosen.

<table>
<thead>
<tr>
<th>Indicator weight</th>
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<tbody>
<tr>
<td>Refereed journal paper – open access</td>
</tr>
<tr>
<td>Refereed journal paper – not open access</td>
</tr>
<tr>
<td>Book chapter</td>
</tr>
<tr>
<td>Landmark conference (DFID priority)</td>
</tr>
<tr>
<td>Policy brief (with defined audience)</td>
</tr>
<tr>
<td>Other conference papers (incl. proceedings)</td>
</tr>
<tr>
<td>In-house publication (reviewed externally)</td>
</tr>
<tr>
<td>In-house publication (not reviewed externally) (includes infomedia)</td>
</tr>
</tbody>
</table>

Additional points for:
- Targeted research for DFID use 21 2
- Publication by developing country staff 2

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18 The RS does not specify Southern partners in the statement of the results area. However, it is clear from the text that this refers to Southern institutions, so for clarity, the wording has been modified to reflect this.

19 The target will be set in the light of the forthcoming DFID open access policy statement.

20 Science Council CGIAR, SPIA Activities Update, Prepared for SPIA 34 and SC 10 Meetings, Tervuren, Belgium, 31 August – 4 September 2008, July 29 draft

21 This would include a note for Insight, a seminar paper for DFID or providing materials for an Advisors retreat.
Fund holders will obviously need to report against each type of publication but this should be a relatively simple task. The downside to a straightforward quantitative indicator is that it may not capture the publication relevance or broader quality. However, the M&E process and subsequent reporting can incorporate qualitative measures by asking researchers to report on their five most influential project publications for example. These illustrative stories need to be reported alongside headline indicators although it only makes sense to set targets for the headline indicators.

**Indicator 2: End-user opinions about DFID funded research shows improvement.**

This will be collected through tracking forwards and backwards for opinions on research funding and research outcomes, at a thematic level, using stakeholder mapping of the different research funding modalities and contacts provided by the teams. The Research Uptake team will provide guidance on the method to be used.

**Indicator 3: Coverage in local and international infomedia**\(^{22}\) across all programmes increases in line with research communication spend.

The aim is to track how accessible the research evidence base is to decision makers. The number of radio programmes, web hits, or newspaper articles for example should be available from annual reports from RPCs etc. This would be the simplest measure but is relatively crude. Work is currently being undertaken to define a more sophisticated indicator in terms of minutes of radio and TV coverage, web use, column inches of newspaper coverage but this will require more effort by the Programmes.

**Indicator 4: Indicator utilising web hits on R4D**

In the Divisional Performance Framework for PRD, there is an indicator of use of R4D, as follows: Increased number of users of DFID Research from R4D (DFID’s Research Portal) – (a) increase in number of hits; (b) increase in number of registrations for e-mail alerts and RSS feeds. It is given a baseline and target as follows; (a) 50% increase from 2006 baseline of 7,500 users a month; 1(b) 20% increase from 2006 baseline (tbc).

Additional data are being collected on data such as number of visitors, visitors by geographical area, type of institution and number of downloads\(^{23}\).

**Indicator 5: Number of technologies developed of relevance to the poor and poor women rising in line with DFID spend.**

Number of technologies developed of relevance to the poor and poor women rising in line with DFID spend. It is assumed that the definition of “technologies” would be defined initially by the fund holder, but it should be noted that the term is not unambiguous. Many innovations are made up of a number of small technical changes, and it is not clear at what point this becomes a new technology. The officer in charge will have to exercise some

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\(^{22}\) Infomedia refers to information technology and mass communication media.

\(^{23}\) Efforts to develop best practice web use indicators are currently being undertaken by the UK-based M&E Research Communications Group. Also see COI guidance on this issue at [http://www.coi.gov.uk/guidance.php?page=147](http://www.coi.gov.uk/guidance.php?page=147)
oversight as to how fundholders define this in practice. Fund holders will need to report on number of technologies and assess potential impact. Technologies of relevance to poor women will require fund recipients to assess gender relevance of their activities.

**Indicator 6: Number of users, both men and women, of new technologies developed with DFID funding over the last 10 years increases in line with spend**

This information, where relevant, should be available from annual reports of organisations receiving DFID funding. It may require the organisation to disaggregate estimates by gender.

**Indicator 7: percentage of projects and programmes where projected impact (all six themes) are on course to deliver expected impacts, to both men and women, by 2013**

This indicator should be calculated from the annual reports scored on ARIES. All projects and programmes should, at their inception phase develop a theory of change which indicates what projected impact should be, at least in terms of direction, as the basis for their log-frame. This will then allow progress against intermediate outputs and outcomes to be tracked, even if either the time frame, or the nature of the project concerned, is unlikely to result in final impact within the project lifetime.

Monitoring impact is clearly important for assessing the effectiveness of the RS. However, as has been discussed earlier, in some cases it will be difficult to measure impact within the time frame of the RS. It will be important for DFID Research to ensure that a number of impact studies are carried out each year, whether by DFID Research or its research partners, to ensure that a stream of evidence is being collected. It will also be important that a number of projects, which are likely to have widespread impact if successful have adequate baseline data collected at the inception phase to enable good impact work to be undertaken.

Although it would be extremely expensive to carry out impact studies on all DFID funded research, the consultants feel that DFID Research should set a target for the percentage of the budget to be ultimately subjected to impact assessment. Some such studies are currently underway in the Research Into Use programme.

The consultants feel that it is unlikely that it will be possible to identify general indicators of impact which can be used across the whole range of DFID Research funding. However, there may be more possibility at thematic level, and it could be possible to standardise, for example, poverty impact indicators for use in impact studies.

**Indicator 8: Increasing proportion of total DFID budget spent in developing country institutions.**

DFID Research directly funds some developing country institutions, and many of its research partners, both bilateral and RPCs work with developing country partners. To measure this indicator, they will have to report on how much of their DFID funding is spent in or by developing country institutions\(^{24}\).

\(^{24}\) Problems of definition might arise where DFID supports expatriates within a developing county institution, or indeed where developing country institutions buy goods or services from the UK.
Indicator 9: Sustainability of DFID funded research institutions measured by proportion of budget raised from non-DFID sources reaches x% by end of five years.

This information should be readily available from institutions, if not contained in their annual reports.

Indicator 10: At least x% of DFID funded published research is available free on-line by 2013

The high cost of subscription journals can limit the uptake of research findings in developing countries. Making peer-reviewed journal articles available for free on-line together with a right to non-commercial re-use helps researchers and practitioners to access this research. In moving towards this system DFID can draw on the experience of The Wellcome Trust who has put this approach at the centre of their publication strategy (see Box 1 below). In summary, we recommend that DFID:

1. Stipulates as a high-profile research contract requirement that electronic copies of any research papers that have been accepted for publication in a peer-reviewed journal, and are supported in whole or in part by DFID funding, are made available through the appropriate open access distribution channel as soon as possible and in any event within six months of the journal publisher's official date of final publication;
2. Puts in place and publicises appropriate sanctions for failure to comply with this requirement (e.g. restrictions to future funding) and automated monitoring (cross checking between published papers listed in project reporting pro-formas and those in open-access databases after a gap of 6 months);
3. Uses an appropriate existing distribution channel with a copy on R4D;
4. Provides grantholders with additional funding, through their institutions, to cover open access charges, where appropriate, in order to meet DFID's requirements. The preferred option should be for the publisher to undertake the deposition on behalf of the author but if the publisher does not offer this service, researchers can still comply with the open access policy by self-archiving the final, peer-reviewed manuscript;
5. Encourages - and where it pays an open access fee, requires - authors and publishers to license research papers such that they may be freely copied and re-used (for example for text and data-mining purposes), provided that such uses are fully attributed.
6. Incorporate the cost of paying open access fees in all new research programmes. The cost of paying the publisher (including the re-use licence) is around US$3000 per article.

DFID is currently developing an Open Access policy and the target for open access publications in the research portfolio will be set based on the forthcoming policy statement.

DFID should also ensure that 100% of final technical reports of all funded research are available on the DFID internet site R4D, rather than, as sometimes happens, a link to the

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25 These conditions draw on the Wellcome Trust "position statement in support of open and unrestricted access to published research", [http://www.wellcome.ac.uk/About-us/Policy/Policy-and-position-statements/WTD002766.htm](http://www.wellcome.ac.uk/About-us/Policy/Policy-and-position-statements/WTD002766.htm)

26 DFID may want to use the manuscript submission system - the UK Manuscript Submission System (UKMSS) – developed by the Wellcome Trust for this purpose.

27 One option for existing research activities where this has not been incorporated within programme budgets would be to address the cost of open access fees from the Communications budget.
author of the report. Recently finished research should be put on the web within 6 months of completion and R4D should set targets for inputting the final technical reports of research completed prior to 2009.

**Box 4.1 Open Access Publishing by The Wellcome Trust**

PubMedCentral (PMC) is stipulated as the repository of all Wellcome Trust funded research papers i.e. whether originally published in a subscription or open-access journal. In practice compliance has been a problem with only 30% of funded papers being deposited. This reflects confusion amongst researchers and the additional transaction costs involved.

The cost of paying the publisher (including the re-use licence) is around US$3000 per article and this will translate to Wellcome Trust spending 1-2% of its total research budget on making all publications open-access.

As PMC is fully indexed by Google, a search that identifies a particular journal article will identify the same article in PMC. However, life science researchers still typically use the PubMed database to search for relevant articles and this is linked with PMC. PMC is currently supported by eight funding agencies including the BBSRC and the MRC.

One of the benefits to the Wellcome Trust of PMC is that it enables them to undertake portfolio analysis of their funding e.g. identifying the relative productivity of different types of funding. DFID will be able to do this as well but across all key M&E measures.

**Indicator 11: percentage of funding arrangements with a specific gender framework, or which address gender issues explicitly.**

This is a process indicator, which can be easily measured by examining MoUs, contracts, etc. The target should be that 100% of funding agreements should have a gender framework within a given number of years (to allow for existing agreements which might be difficult to renegotiate).

**4.2 Attribution and Reporting Issues**

A considerable proportion of DFID research funding goes to joint ventures, or multilateral institutions and initiatives. In some cases it is earmarked for specific purposes, but in others it is the equivalent of core funding. There are no simple methodologies for identifying how much of the overall outputs and outcomes of the initiative or research institute result from DFID funding. Nor is it always clear if the simple fact of DFID funding has allowed the organisation or initiative to access additional funding from other sources. The simplest way to assess progress made from this type of funding as opposed to contracts or RPCs, where DFID may be the sole funder, is to assess what proportion of the total funding comes from DFID. This may on occasion result in too little weight being given to the importance of DFID funding, but it is inappropriate to, for example, attribute all the publications of an entire CGIAR institute to DFID, when it may only contribute around 10-15% of the funding. The new log-frame format now being used by DFID requires staff to give the share of total funding coming from DFID, and this will then be used to ascertain the proportion of outputs and outcomes attributable to DFID.
Although the RS is less than one year old, and new initiatives are still underway, at the same time, a significant amount of research funding continues to go to research partners with whom DFID has worked for many years. There may be ongoing contract and MoUs which do not specify the degree of detail in reporting that would be necessary to allow even the relatively light M&E framework outlined above. In some cases, it may be possible to renegotiate reporting requirements, but it may prove more difficult in others. It may take time before partnership arrangements are migrated to a format which enables effective M&E. However, that should be the ultimate objective.

4.3 Measuring Impact

It is important that DFID Research should be able to measure impact of the significant expenditure on research. Of the high level indicators included in the M&E framework, only indicator 7, % of projects and programmes on track to deliver expected impacts, and possibly 2, end-user opinions showing improvement, address impact, as opposed to outputs and outcomes. There are a number of reasons for this. One is the difficulty identified earlier in this report of the time elapsed before any particular activity will result in impact. Another is that the high-level indicators identified have been chosen to be able to be aggregated up from individual themes, programmes and projects, to enable a direct link to be made between activities and impact.

It would be possible to identify certain impact indicators, related to the MDGs, and PSA 29, reduce poverty through quicker progress towards the MDGs, and track these, but it would be difficult to link these to DFID Research activities with any rigour, or to make any assessment of contribution to changes in these indicators. This is particularly the case because of the diversity in activities funded under the Research Strategy. An impact indicator for a project aimed at increasing understanding of the impact of HIV/AIDS on women, for example, will differ from that of a programme aimed at developing a vaccine for malaria. However, the consultants believe that it may be possible to track impact at a more disaggregated level, by using case studies.

DFID Research already requires RPCs to submit a number of case studies each year to highlight successful research initiatives. However, these do not appear to be presented and used in a consistent manner. Case studies are an important complement to quantitative monitoring, and are often a very useful tool in making the case that research funds have been effectively used. Case studies providing learning for DFID about process and activities. Stories of change are very useful for this type of formative evaluation. In addition, case studies can be an important element of ex-post impact assessments. However, they should be required to contain certain information more systematically than is the current situation. RPCs should be required to present two case studies a year which contain information about:

- how long the project resulting in the findings presented has been in operation (including both production of knowledge and use of knowledge)
- the total cost of reaching the position at the time the case study is written
- the number of current beneficiaries and the number of potential beneficiaries.

This will allow the case study to be properly contextualised, and will help build a better understanding of the time scale and cost of good research.
The RPC should also indicate what proportion of the overall RPC portfolio is represented (in financial terms) by the case study. Over time, the number of case studies could be increased.

The consultants feel that using the case study approach in this way has the greatest potential for identifying impact. Where possible, impact studies should use standardised indicators, as given by DFID guidelines. In particular, DFID Research should decide on specific indicators for measuring impact on poverty, consistent with measures used in the rest of DFID. These would almost certainly be the appropriate MDG indicators.
5 Team specific indicators

All teams will measure the relevant high level indicators in table 4.1 for the activities carried out by the team. However, most teams felt that they needed to monitor a wider (often more team specific) set of indicators than those in the generic list within their team log-frames. Those additional indicators which came out of the work done with the individual teams to develop their log-frames and monitoring frameworks are detailed below.

**Agriculture Team**

Results area 4:

National budgets provide increasing annual funding in real terms for African SROs and FARA

The CGIAR delivers the promised institutional reforms:
1. CGIAR multi-donor fund to fight climate change established & functional in 2009
2. CGIAR implements planned changes for stakeholder involvement by 2010
3. Creation of CGIAR as a legal entity in 2009
4. Program Performance Contracts between the CGIAR Consortium and the CGIAR Fund operational in 2010

The joint external evaluation of FARA (in 2010? Or periodic?) indicates that implementation of CAADP pillar 4 in target countries in Africa is on track

There is an increase in spend by Public-Private Partnerships for product development for research use in developing countries by 2011

**Health Team**

Results area 2:

Developing country partners in DFID-funded health research programmes and PDPs report increasing use of their existing websites year on year.

Results area 3:

New treatments for TB and Malaria should be on the essential medicines list in target countries by 2013

DFID annual review of the PDP portfolio shows quality is maintained or improving

Results area 4:

Increasing proportion of clinical trial sites for DFID funded research working to international standards by 2011

PDP funded sites are working on wider research than just clinical trials and sharing resources with other partners and organisations by 2011

Increase in annual staff & spend for WHO special research programmes
Climate Change and Environment Team
Results area 3:
Indicators of resilience to climate change in target countries show an improvement by 2013

Governance in Challenging Environments Team
Results area 4:
Increasing proportion of total DFID Governance & Social research budget for capacity building spent in developing country institutions by 2012

The Research Uptake Team would like to see each project develop case studies to provide:

- Stories of change on project processes and activities to capture what is working and not working in order to generate learning for the project, programme and DFID;
- A review of the project theory of change, to review and revise the project logframe.
- Ex-post assessment of impact
6 Operationalisation of Framework

There are a number of key decisions which have to be made when it comes to putting the M&E framework, and the measurement of indicators, into practice. Ultimately these are decisions which have to be made by DFID staff. However, the following are the consultants’ proposals.

6.1 Identification of responsibilities

The M&E framework required collection of information at two levels – that of the thematic team and at the level of the overall strategy. The consultants understand that there will be one person with particular responsibilities for M&E, who is part of a divisional monitoring team. This means that the thematic teams will have to identify individuals responsible for ensuring that information on the individual projects and programmes is collected, and reported in the appropriate format.

At the RS level, all the indicators proposed, except for 5 and 7, are based on individual project or programme information, therefore it would seem reasonable that the staff members responsible for those programmes should be responsible of ensuring that information was available in a disaggregated manner to enable the M&E officer to aggregate it and calculate indicators in a timely manner.

Indicators 5 and 7 are dependent on surveys and analysis of website traffic. Information is already being collected on website traffic, and one option would be to identify an individual in communications to collect that information in an appropriate mode. Similarly, it would be a sensible option to designate an individual to responsible for managing the running of the survey.

6.2 Measuring baselines

For many of the indicators identified, there will be no baseline values currently available. The baseline would be the value when the indicators are measured for the first time (in early 2009). Because it may not always be possible to get a comprehensive baseline figure initially (the process of migrating existing contracts and agreements has been touched on earlier), care will have to be taken that the percentage of the total research strategy covered by the baseline value of the indicators is properly documented. As new contracts and arrangements are entered by DFID, the proportion of the programme covered by the M&E system should move towards 100%.

6.3 Setting targets

Once the baseline values are measured, then realistic targets can be set, along with the timeframe for achieving them. This should be undertaken by DFID Research itself in conjunction with senior management. Where the target is not so dependent on the original baseline value, the consultants have suggested possible targets. Targets should be realistic and achievable, but not so low as to have no value. In some cases, where there is an overall

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28 If funding were available it would also be possible to contract out the survey process. However, with internet engines like survey monkey available at low cost, it might be possible to invest sufficient human resources to set up such a survey internally. The cost of continuing the process once it was set up would be low.
DFID policy, the target should be that all programmes (100%) should comply with policy within a fairly short time frame. This would be the case, for example, for complying with gender objectives in partnership agreements and contracts.

### 6.4 Frequency of reporting

DFID has to report twice a year on its PSA. However, it will not be meaningful to report on all the indicators in the overall M&E framework as frequently as that, because the information will not necessarily be available to update indicator values. Many of the programme will only collect and contain this information in their annual reports.

A clear exception to this is the information from R4D, which is also one of the indicators in the PRD performance framework. However, there is not enough experience as yet with information on R4D use to know if there is any regular variation in pattern (for example seasonally) which would have to be taken into account in interpreting the results.

The consultants propose that DFID Research reports upwards on indicators included in the Departmental Performance Indicators, in line with PSA reporting on a twice yearly basis. However, the main reporting on the RS should be annual, within one month of all the annual reports being received.
Bibliography


J. Mayne, ILAC Brief Number 16, may 2006 (ILAC CGIAR).

Annex A  Theory of Change

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<thead>
<tr>
<th>Theory of Change</th>
<th>Policy</th>
<th>Technology</th>
<th>Capacity</th>
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**Results Area 1:** New Policy Knowledge Created
- Policy: DFID, LDC, Internat
- What are main inputs designed to produce results
- How will inputs produce intended outputs: what are assumptions, what is implied "model of change"
- What are the main deliverables intended to produce results

**Results Area 2:** Existing and new evidence better informs decision making
- Policy: DFID, LDC, Internat
- What will cause research output to be used
- How will outputs produce intended result: what are assumptions, what is implied "model of change"
- What are the main deliverables intended to produce results

**Results Area 3B:** New technologies used in LDC
- Technology: LDC
- What will cause research output to be used
- How will outputs produce intended result: what are assumptions, what is implied "model of change"
- What are the main deliverables intended to produce results

**Results Area 4B:** Capability to Use research strengthened
- Capacity: DFID, LDC, Internat
- What will cause research output to be used
- How will outputs produce intended result: what are assumptions, what is implied "model of change"
- What are the main deliverables intended to produce results

**Results Area 3a:** New Technologies developed
- Technology: LDC
- Results area 3a: New Technologies developed
- How will outputs produce intended result: what are assumptions, what is implied "model of change"
- What are the main deliverables intended to produce results

**Results Area 4a:** Capability to do research strengthened
- Capacity: DFID, LDC, Internat
- Results Area 4a: Capability to do research strengthened
- How will outputs produce intended result: what are assumptions, what is implied "model of change"
- What are the main deliverables intended to produce results
ANNEX B  SHORTLISTED INDICATORS (NOT INCLUDED)

During a series of meetings with members of DFID research, a number of indicators were suggested which the consultants feel had merit, but were not included in the high-level indicators, either because of elements of overlap, because they were seen as alternatives to indicators already included or because of the additional data requirements. However, they are discussed below as a resource for any future reworking of the M&E system.

The Governance and Social team suggested adding:

1b. Composite publications index shows increase in primary authors from developing countries in line with DFID research spend

The advantage of adding this indicator is that helps to track capacity building in Southern research institutions. However, it would require all research fund holders to record and report an additional piece of information for every publication i.e. whether the primary author is from a developing country. This is linked to indicator 1.

1c. Proportion of female primary authors from Indicator 1 increases year on year

This asks all research fund holders to record and report an additional piece of information for every publication i.e. whether the primary author is female.

5 b. No of technologies developed with realistic potential impact on more than 50 million poor people, disaggregated by gender, rising in line with DFID research spend

This asks fund holders to assess the potential impact of research projects, and to give a gender breakdown. This is linked to indicator 5.

The Climate Change and Environment team felt that indicator 5 should refer to sustainable technologies rather than technologies per se.

10b. All data sets produced by research projects have to be put into the public domain within 18 months of collection

The team proposed nominating ESDS as the repository for economic and social data. The reported indicator would be based on DFID monitoring of compliance with the contract condition. This proposal should be reviewed by DFID statisticians to incorporate issues of confidentiality, quality control and cost of bringing data sets to public access standards.