

Evaluation of DFID's Performance Management Funding of International Agriculture Research Centres

Final Report

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DEVELOPMENT CONSULTANTS

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Executive Summary

DFID makes substantial investments in agricultural research, including through a current programme named “Support to International Agriculture Research Centres (IARCs) that Benefits Poor People”. This programme includes the provision of financial support (totalling £40 million) to five IARCs, namely CABI, AVRDC, *icipe*, ICIMOD, and GFAR over the period 2011–2015 under the Performance Management Funding Mechanism (PMFM).

The PMFM comprises ‘core’ multi-year unrestricted funding plus an additional performance-related element or ‘bonus’ that is a fixed amount of funds paid if the IARC represents good or very good value for money to DFID. This additional element is allocated based on performance against three to five high-level deliverables for each IARC. In addition, there are cross-cutting areas such as planning, implementing and institutionalising gender mainstreaming across the IARCs; development of an environmental management system and reducing the carbon footprint of the IARCs’ operations; and building capacity through investments in IARCs’ and partners’ human resources.

In 2014, DFID commissioned Landell Mills to undertake an independent evaluation of the PMFM. The evaluation had two objectives: 1) to assess the effectiveness of the PMFM in delivering high quality research, agreed results, and value for money; and 2) to make recommendations to DFID’s Research and Evidence Division on performance management funding of research.

The evaluation was guided by the OECD-DAC analytical framework and assessments were carried out along the lines of relevance, effectiveness, efficiency, impact, and sustainability criteria. The evaluation developed a Theory of Change (ToC) as an analytical framework, and conducted a stand-alone Value for Money assessment to support the analysis. The evaluation team employed a mixed methods approach, including the following qualitative and quantitative research methods:

- **desk-based review** of documents and secondary analysis of data;
- **small sample survey** to gather the views of other donors on PMFM, semi-structured interviews (phone and in person) with DFID staff, IARCs staff and counterfactual centres;
- **focus group discussions** with end users of the IARCs’ outputs and commercial and other implementation partners; and
- **field visits** to IARCs’ headquarters/main office and select demonstration/project sites¹.

The evaluation’s main findings were that the PMFM processes that have been established by DFID, such as setting the key deliverables at the outset of the funding, and the annual performance review, provide the IARCs with a clear focus on the agreed outputs and outcomes. It has also been effective in facilitating the delivery of high quality research, the agreed results, and value for money.

¹ Field visits took place between October 2014 and January 2015.

In response to the evaluation questions, findings were as follows:

1. Do DFID and each of the Centres share an understanding (implicit Theory of Change) of the aims, operation and expected effects of the multi-year performance funding mechanism?

At the beginning of the funding period, the IARCs were not fully aware of the (implicit) ToC underlying the funding mechanism. During the evaluation exercise, a ToC was elaborated and validated with both the beneficiary IARCs and DFID, allowing all parties to develop a deeper understanding of the logic, expected outcomes, and impact pathway of the PMFM. The evaluation confirmed that the ToC is a powerful planning instrument but it should be developed in a participatory manner, and in advance of the initiative. This will allow all parties to better understand what is expected of each other, and how it will be measured, including definition of key terms. This process would also have reinforced the guidance contained within DFID's letter to each IARC at the beginning of the PMFM, as a precursor to the performance reviews.

2. What has been the response of the Centres and the reaction of other donors and stakeholders and, in their judgement, how effective to date is this mechanism proving to be?

There was a consensus amongst the IARCs that DFID's PMFM plays a critical role in supporting both their core and research functions, including the scaling-up of research outputs. In particular, the IARCs consider the unrestricted, multi-annual core funding component an essential feature of the PMFM. The benefits resulting from the performance component or 'bonus' received by two of the Centres included the strengthening of internal capacity to help them in producing substantial impacts at end users' level, and in promoting new research lines.

Other IARC donors have limited knowledge of DFID's PMFM and, because of this, they were not in a position to judge the effectiveness of the funding mechanism.

3. What is the evaluators' (independent, evidence-based) assessment of the intended and unintended, positive and negative effects of the funding mechanism? How can it be made more effective?

The response to this question centred on the two outputs indicated in DFID's programme logframe. These are Output 1) Centres generating high quality research output; and Output 2) Organisational behaviours which underpin effectiveness and value for money for DFID are strengthened. Overall, findings in each of these areas were positive.

Output 1 was assessed against agreed deliverables on numbers of research publications (including the number in peer-reviewed journals) and production of high quality case studies made available for publication demonstrating impacts at scale, and responding to issues of climate adaptation, empowerment of women, food and nutrition security.

With regard to Output 1, the PMFM ensured that each Centre focused on delivering against each of the indicators and, once DFID's expectations within these areas were understood, the Centres began to see the value of taking the desired approach. For example, the emphasis on gender was appreciated by other donors as well as DFID, and the requirement for case studies to be based on more rigorous and robust evidence led to a gradual move towards more strongly evidenced case studies, which were seen as valuable outputs for IARCs' future research as well as dissemination. However, the Centres also felt it was important to continue to maintain a range of approaches in

developing case studies, scientific publications and impact assessment, as appropriate for their needs and those of their audiences.

Key deliverables under Output 2 were robust financial systems and sources, a clear Environmental Management System, HR policy and operational plans for ensuring gender balance in organisational structures and research processes, medium-term planning tools produced and approved, and management of resources based on improved planning tools. In addition to these indicators, PMFM transaction costs and the performance component (bonus) of the PMFM were reviewed.

The evaluation found that M&E, gender and fundraising systems were enhanced in the IARCs, in response to the key deliverable set by DFID. However, as mentioned above, a better mutual understanding of expectations and a process of negotiation and consensus-building at the beginning of the period, might have led to more significant results. In relation to the bonus element of the PMFM, there was insufficient evidence to suggest that, in its current form, it is effective and helps to deliver good value for money. A reconsideration of this element of the PMFM is, therefore, one way that the PMFM could be made more effective in the future.

4. To what extent has this funding mechanism delivered or improved the quality of research outputs, with particular regard to deployment of technologies and robust measurement of impact, in relation to more conventional funding mechanisms (both project funding and core unrestricted funding)?

The Centres' research outputs in relation to deployment of technologies were variable – both within and across Centres. Whilst dissemination is key to *all* Centres' activities, three Centres (AVRDC, CABI and ICIMOD) had key deliverables in this area and, while performance against these deliverables was variable, this does not suggest that the PMFM was not effective. Firstly, it can take several years for a technology to become available for dissemination and, secondly, dissemination or scaling-up usually occurs across multiple countries, and with a range of partners of varying levels of capacity.

With regard to robust measurement of impact, Centres did not achieve this to the level that DFID had hoped. Again, clearer communications on what this would entail and understanding the limitations of impact measurement in relation to existing research projects, in particular, would have been useful in managing expectations and establishing realistic targets. However, a positive outcome is that some Centres are now building appropriate impact assessment measures into the design of new research projects.

5. What progress, if any, have the centres made towards demonstrating their outcomes and ultimate impacts through improved documentation, internal studies and commissioned evaluations? What evidence (selective but robust) of achieved or prospective development impacts (or lack thereof) has been generated through this evaluation?

The main research programme lines of the IARCs have long-term perspectives and the strengthening of impact evaluation capacity is still in progress. Given this, it is not yet possible to have a robust, evidence-based assessment of the PMFM's contribution to the IARCs' generation of sustainable impacts.

In general terms, the strategy adopted by all the IARCs to scale up their research outcomes and demonstrate their development impacts is based upon three main pillars: 1) promotion of partnership with public institutions, NGOs, private sector and other

research institutions; 2) communication and dissemination (C&D) of results and; 3) stakeholders' involvement and dialogue with policymakers.

The unrestricted core funding mechanism gave all the IARCs financial flexibility to intensify their communication and dissemination activities. A communication unit either has been set up or is underway in all Centres apart from GFAR. The IARCs have also developed communication strategies that use a variety of instruments, such as educational publications, video and radio campaigns and on-field demonstration activities. Non-traditional instruments using new technologies, and the important role of community leaders have also been identified as pivotal for channelling key research-based messages.

All the IARCs provide sufficient dialogue opportunities (fora, virtual environments, direct consultations) to involve relevant stakeholders in the identification of end-users' needs and priorities. The majority of the core research activities of the IARCs can be defined as "demand driven". IARCs have strong institutional links with governmental and/or regional institutions and are frequently asked to respond to specific technical or strategic requirements during the definition of agricultural or environmental policies.

The main lessons learned during this evaluation, and related recommendations are summarised below. They are also discussed in more detail in Chapter 5.

Table 1: Summary table linking findings, lessons learned and recommendations

Findings section*	Lesson learned	Wider (Yes) or potential wider (P) relevance	Recommendation (for next phase)	Wider (Yes) or potential wider (P) relevance
Design				
4.1	L1: Joint elaboration of the ToC between DFID and the Centres would have aided clarity.	Yes	R1: Elaborate an explicit ToC for Phase 2 in collaboration with the Centres.	Yes
Wider awareness				
4.2	L2: Most Centre donors were unaware of the PMFM process.	Yes	R2: Learn from Centres about other donor initiatives, and communicate about PMFM effectively.	Yes
Indicators				
4.3 Output 1 (& 4.1)	L3: The increased recognition of open access journal publications is good but there needs to be clear communication on how this could work vis-à-vis the publication targets set by the Centres at the start of the funding.		R3: Ensure joint understanding, negotiation and consensus on what is required in relation to PMFM indicators.	Yes
4.3 Output 1 (& 4.1)	L4: Clear understanding of, and agreement on, the purpose and evidence base of a case study			

Findings section*	Lesson learned	Wider (Yes) or potential wider (P) relevance	Recommendation (for next phase)	Wider (Yes) or potential wider (P) relevance
	required from the design phase.			
4.3 outputs 1 and 2 (& 4.1)	L5: The dual attention paid to institutional and development gender and women's empowerment indicators by PMFM was effective.			
4.4 (& 4.1)	L6: A common and negotiated understanding on impact assessment is important.			
Process				
4.2, 4.3 Output 2 (pt 5) (& 4.1)	L7: Provision of multi-year funding is advantageous to Centres.	Yes	R4: Continue provision of multi-year funding in Phase 2 and consider its use in DFID's support to other research centres.	Yes
4.2, 4.3 Output 2 (pt 5) (& 4.1)	L8: Provision of core funding is advantageous to the Centres.	Yes	R5: Continue provision of core funding in Phase 2 and provide more direction in its use	Yes
4.3 Output 2 (pt 7), (& 4.1)	L9: There is insufficient evidence that the performance component of the PMFM incentivises performance	P	R6: DFID to reassess the structure of the PMFM and consider the introduction of a "Special Award" to replace the bonus element of the PMFM whilst preserving the core funding	Y
4.3 Output 2 (pt 6), 4.2 (& 4.1)	L10: Greater dialogue, clarity and guidance to Centres enhanced their understanding of how performance was measured, and improved it as a result	P	R7: Continue dialogue and communication with IARCs through the performance review process and other mechanisms	Yes
4.3 Output 2 (pt 6)	L11: IARCs should be able to plan adequately for the use of additional or bonus funds in order to increase Value for Money	Yes	R8: Improve the ability of IARCs to plan for use of 'bonus' funds	Yes
VfM				
Annex 6	L12: There could be more clarity on what needs to be measured to demonstrate VfM, and how.	Yes	R9: Consider ways in which to build expertise in measuring VfM in the context of agricultural research Centres.	Yes

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Acronyms

3ie	International Initiative for Impact Evaluation
ACIAR	Australian Centre for International Agricultural Research
AIRCA	Association of International Research and Development Centers for Agriculture
AR	Agriculture Research
AR4D	Agriculture Research for Development
AVRDC	World Vegetable Center
C&D	Communication & Dissemination
CABI	Centre for Agriculture and Biosciences International
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza
CFF	Crops for the Future
CGIAR	Consultative Group on International Agricultural Research
DFID	Department for International Development
DGIS	Directorate-General for International Cooperation (The Netherlands)
EC	European Commission
EMS	Environmental Management Services
EQ	Evaluation Question
GCARD	Global Conferences on AR4D
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GFAR	Global Forum on Agriculture Research
HKH	Hindu Kush Himalayas
HR	Human Resources
IARCs	International Agriculture Research Centres
icipe	International Centre of Insect Physiology and Ecology
ICIMOD	International Centre for Integrated Mountain Development
ICRA	International Centre for Development Oriented Research in Agriculture
IDRC	International Development Research Centre (Canada)
IFS	International Foundation for Science
IPM	Integrated Pest Management
ISG	ICIMOD Support Group
J-PAL	Abdul Latif Jameel Poverty Action Lab
M&E	Monitoring and Evaluation
OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee
PMFM	Performance Management Funding Mechanism
R4D	Research for Development
RCT	Randomised control trial
RBM	Results-based management
SDC	Swiss Agency for Development and Cooperation
SIDA	Swedish International Development Cooperation Agency
ToC	Theory of Change
ToR	Terms of Reference
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VfM	Value for Money

1. Introduction

This report presents the findings of an independent, summative evaluation of DFID's Performance Management Funding Mechanism (PMFM) for international agriculture research centres (IARCs, also referred to as "Centres" in this report). The evaluation, commissioned by DFID and conducted by Landell Mills, considers the outcomes and prospective development impacts of the IARCs that are funded under the PMFM. Its overall purpose is to contribute to a better understanding of the role of the PMFM in facilitating the delivery of high quality research outputs. In particular, the evaluation had two main objectives:

- a) To assess the effectiveness of DFID's PMFM in delivering high quality research, delivery of agreed results, and value for money.
- b) To make recommendations to DFID's Research and Evidence Division on performance management funding of research, including metrics.

To meet these objectives, the following evaluation questions (EQs) were addressed:

1. Do DFID and each of the Centres share an understanding (implicit Theory of Change) of the aims, operation and expected effects of the multi-year performance funding mechanism?
2. What has been the response of the Centres and the reaction of other donors and stakeholders and, in their judgement, how effective to date is this mechanism proving to be?
3. What is the evaluators' (independent, evidence-based) assessment of the intended and unintended, positive and negative effects of the funding mechanism? How can it be made more effective? The assessment should cover the delivery of the Centres against their core research deliverables as set out in the agreement with DFID, as well as the cross-cutting issues of gender, environmental management systems and value for money.
4. To what extent has this funding mechanism delivered or improved the quality of research outputs, with particular regard to deployment of technologies and robust measurement of impact, in relation to more conventional funding mechanisms (both project funding and core unrestricted funding)?
5. What are the lessons from this experience of performance management funding of research, and on performance metrics, which could be of relevance within DFID agriculture research and DFID research more widely?
6. What progress, if any, have the Centres made towards demonstrating their outcomes and ultimate impacts through improved documentation, internal studies and commissioned evaluations?
7. What evidence (selective but robust) of achieved or prospective development impacts (or lack thereof) has been generated through this evaluation?

These questions are developed in more detail in the Evaluation Matrix (see Annex 3). In addressing them, the following units of analysis have been used: a) performance of the IARCs; b) the contribution of DFID assistance to the IARCs; c) effects of the PMFM and; d) the performance element of the PMFM. Whilst the performance of the IARCs

themselves is broader in scope than the study, it remains an integral part of the evaluation, and has been considered in relation to the evaluation questions above.

The evaluation covers the activities of DFID and the five PMFM-funded IARCs over a three-year period, from October 2011 to October 2014. It was conducted by a team of five experts between October 2014 and September 2015.

The main users of this evaluation are DFID's Agriculture Research team and other staff within DFID's Research and Evidence Division. Some elements of the evaluation will also be of great use and relevance to the IARCs and the Consultative Group for International Agricultural Research (CGIAR) system.

This report presents the scope and objectives of the evaluation, and the methodology employed by the evaluation team in response to them. It introduces the IARCs and describes the PMFM before continuing to present the main findings of the evaluation. Finally, it presents a series of evidence-based lessons and recommendations for further discussion within DFID.

2. Overview of DFID's Performance Management Funding Mechanism

DFID has long recognised the role of sustainable agriculture in the achievement of the Millennium Development Goals, including it in its Research Funding Framework in 2004. Currently, DFID's support to international agriculture research is being implemented within the 10-year Strategy for Research on Sustainable Agriculture (SRSA), which was approved in 2006 and includes support to international agriculture research with the aim of *"delivering high quality and effective international public good research to tackle poverty reduction and achieve sustainable growth"*.² This focus was further reinforced in 2008 upon the release of a five-year Research Strategy, which ranked sustainable agriculture³ high amongst DFID research priorities.⁴

As part of this strategy, DFID has been providing support to: international agriculture research centres (IARCs) through the Consultative Group on International Agricultural Research (CGIAR) as well as to IARCs that are not part of the CGIAR system ("non-CGIAR centres"). This two-pronged funding is premised on the assumption that supporting these two groups of centres maximises complementarity of research, and provides significant value addition to DFID's research agenda. Between 2006 and 2010, funding for both CGIAR and non-CGIAR centres was from the same budget "pot", amounting to a total of £150 million (with CGIAR centres receiving £130 million and the non-CGIAR centres £20 million over five years).⁵ In practice, this implies that the two funding streams are managed within one administrative structure.

During this time period, DFID provided core funding support to between four and seven IARCs. These included: Centre for Agriculture and Biosciences International (CABI); World Vegetable Center (AVRDC); Global Forum on Agriculture Research (GFAR); Crops for the Future (CFF); the International Foundation for Science (IFS); the International Centre for development oriented Research in Agriculture (ICRA); and the International Centre for Under-utilised Crops (ICUC). DFID support was provided on a case by case basis, in the form of an annual core contribution. The ad hoc approval of centres for funding in any given year explains the fluctuation in the number of centres supported by DFID annually.

² *Summary of Strategy for Research on Sustainable Agriculture*. Accessed from: http://r4d.dfid.gov.uk/pdf/articles/SRSA_summary.pdf

³ Under the sustainable agriculture theme, the strategy commits DFID to work with partners to strengthen research in six areas. These are: Developing new agricultural technologies to maintain and improve agricultural productivity; Research into high value agriculture, with improved labour productivity, in areas of medium to high agricultural potential; Rural economies, including understanding how rural farm and non-farm economies interact and how urban markets influence the livelihoods of the poor; Risk, vulnerability and adaptation to drought, pests and diseases, in the longer-term context of climate change; Giving farmers a bigger share in food markets where marketing chains, including supermarkets, are demanding greater efficiency at wholesale and retail levels; and Managing renewable natural resources sustainably.

⁴ Scott, M. *A Study on Options for DFID's Management of Support to International Agricultural Research Organisations not part of the Consultative Group on International Agricultural Research*, December 2008.

⁵ Ibid; Email correspondence with Alasdair Swift, 2015

Under this arrangement, DFID's involvement was limited to:⁶

- determining DFID's annual contribution;
- issuing a letter conveying this information, drafting and issuing a Memorandum of Understanding (MOU);
- checking invoices and making payments;
- checking annual audited accounts to ensure that DFID contributions have been reflected; and
- receiving a copy of the Centres' annual reports.

In 2011, however, the "Support to International Agriculture Research Centres that Benefits Poor People Programme" was approved, with the objective of supporting agricultural investments to leverage reductions in poverty and under-nutrition. Its expected outcome is that new technologies, products and knowledge that can address agricultural yield gaps, hunger and malnutrition are developed and put into use and that there is a step change in systems to measure impact. This programme employs a longer-term, strategic research funding approach that represents greater opportunity for DFID to "use funding to leverage results and direct additional resources to emerging DFID research priorities".⁷

It also introduced a new Performance Management Funding Mechanism (PMFM), which superseded the previous system under which the non-CGIAR centres were funded, and which emphasised the following performance-related aspects:⁸

- behaviours and values which drive strong performance: accountability, transparency;
- results driven: effective evaluation function, measures results, sets clear indicators, uses evaluation and review in decision making;
- cost and value conscious: challenges and supports partners to think about value for money; rates of return and cost-effectiveness issues are important factors in decision making; achieves economy in purchase of programme inputs; controls administrative costs;
- delivering for women and girls: promotes gender equality within the organisation and in its outputs;
- ensuring its activities are low carbon, climate resilient and environmentally sustainable;
- partnership behaviour;
- robust mechanisms for independent peer review of research; and
- a track record of research excellence including high quality publications in peer reviewed journals.⁹

⁶ Email correspondence with Alasdair Swift, 2 April 2015

⁷ Business Case, 2011,

⁸ Drawn from 2011 letters from DFID to Centres regarding Multi-year funding and performance monitoring which in turn draw on DFID's Multilateral Aid Review

⁹ The last two aspects of performance are those specific to research programmes

DFID initially provided a total of £30 million of support to the centres that were assessed to be of good value for money, namely AVRDC, CABI, GFAR, and *icipe* (Annex 5 provides short descriptions of the primary focus of research of each of these centres). Following the approval of an extension in 2012, the support was scaled up to £40 million with a further £10 million of additional funding to CABI and *icipe*. The same year, DFID also started funding ICIMOD. Table 2 below provides details of DFID core funding to these IARCs, both before and during the implementation of the PMFM. This table shows the level of core funding provided by DFID throughout the period from 2008 to 2014, and the significance of DFID's funding in relation to that derived from other sources.

Design of the Performance Management Funding Mechanism was based on the following key steps:

- Following the commissioning of a study entitled “A study on options for DFID’s management of support to international agricultural research organisations not part of the CGIAR”, nine non-CGIAR centres were assessed in terms of research impact, effectiveness, contribution to DFID’s aims and how they complement and/or overlap with the CGIAR. The organisations were then ranked in terms of their priority for DFID support and recommended funding levels for the next four years. The study then put forward options for the administration and management of the “non-CGIAR portfolio”, including the use of results-based reporting and incentives.
- Based on the outcomes of the above-mentioned study, AVRDC, CABI, *icipe*, GFAR and, later, ICIMOD were invited to carry out a self-assessment against specified key criteria and to submit 2–3 strong, well evidenced case studies, illustrating the Centres’ work, and impact at scale; and a list of publications produced in the last 2 years, highlighting the number of publications that had been peer reviewed. The self-assessment was based upon a ‘lighter’ version of the Multilateral Aid Review (MAR) and used the same indicators, with the additional inclusion of indicators relating to research.¹⁰
- Based on the self-assessments and further deliberations with each Centre, a multi-year funding award letter was issued to each Centre, outlining the funds (core and potential bonus component), main deliverables agreed and reporting arrangements. The letter also included (for all except ICIMOD) some notes on DFID’s expectations with regard to impact assessment, case studies, attribution (of DFID and of other donors) and VfM.

¹⁰ The MAR process assessed the multilateral institutions to which DFID give funding and determined whether they provided VfM.

Table 2: Funding provided to IARCs by DFID and other donors between 2008 and 2014

		Pre-PMFM			PMFM period			
	Funding type and source	2008	2009	2010	2011	2012	2013	2014
AVRDC	DFID core	£700,000	£500,000	£600,000	£640,000	£1,440,000	£1,520,000	£1,520,000
	Other core	£4,312,158	£3,691,043	£4,114,639	£4,720,346	£4,332,026	£4,150,826	£4,070,115
	Programme	£5,333,921	£7,220,380	£4,603,294	£3,420,852	£2,664,680	£4,010,715	£6,593,345
	TOTAL	£10,346,079	£11,411,423	£9,317,933	£8,781,198	£8,436,706	£9,681,541	£12,183,460
	% DFID core funding as proportion of total	6.8%	4.4%	6.4%	7.3%	17.1%	15.7%	12.5%
ICIMOD	DFID core	figures not available				£1,098,000	£549,000	£1,113,270
	Other core	figures not available				£2,498,634	£3,374,606	£4,285,742
	Programme	figures not available				£9,643,301	£8,434,790	£10,498,336
	TOTAL	figures not available				£13,239,935	£12,358,396	£15,897,348
	% DFID core funding as proportion of total					8.3%	4.4%	7.0%
CABI	DFID core	£534,000	£800,000	£600,000	£1,300,000	£3,067,600	£6,306,000	£4,962,000
	Other devt funding*	£7,372,000	£9,488,000	£9,133,000	£10,340,000	£8,933,400	£8,398,000	£12,617,000
	TOTAL	£7,906,000	£10,288,000	£9,733,000	£11,640,000	£12,001,000	£14,704,000	£17,579,000
	% DFID core funding as proportion of total	6.8%	7.8%	6.2%	11.2%	25.6%	42.9%	28.2%
icipe	DFID core	£0	£500,000	£660,000	£330,000	£2,182,400	£5,402,967	£3,248,000
	Other Core	£3,258,265	£2,649,282	£2,712,085	£2,912,852	£2,488,428	£2,574,524	£1,105,666
	Programme	£5,672,574	£5,456,760	£5,011,505	£7,918,288	£7,214,717	£13,202,629	£11,503,396
	TOTAL	£8,930,839	£8,606,042	£8,383,590	£11,161,140	£11,885,545	£21,180,120	£15,857,062
	% core funding as proportion of total	0%	6%	8%	3%	18%	26%	20%

£1=\$1.4493 £1=\$1.6125 £1=\$1.55 £1=\$1.5536 £1=\$1.6186 £1=\$1.6519 £1=\$1.5573

* other development funding excludes income from publications and country membership subscriptions

Key components of the PMFM are:

- **Multi-year funding** As outlined above, DFID did already provide funding to these and other centres, but on an ad hoc and annual basis. One key component of PMFM was the fact that funding was for four years to enable, as noted above, improved planning of resources by the Centres, resulting prospectively in more effective use of DFID resources.
- **Core funding** Whilst previous DFID funding to the Centres had also been core funding (see Table 2), the key deliverables and generic outputs and outcomes agreed with each Centre under the PMFM provide some direction as to how and where to prioritise use of such funds, whilst still allowing Centres the freedom to choose how to manage them.
- **A performance review component** Under PMFM a relatively “light-touch” system of performance assessment was introduced. The system involves each Centre carrying out an annual review and submitting the report to DFID, after which they are able to present this to a performance review team from DFID, supported by peer reviewers. The review team then shares its findings and produces agreed assessments. Centres have the opportunity to respond formally to each review. DFID assessed each Centre against several key objectives/deliverables as outlined in an MOU between DFID and each Centre along with annual milestones. The agreed key deliverables for each Centre are outlined in Table 4 at the end of this section. DFID also assessed performance against the following organisational behaviours:
 - robust financial systems;
 - planning and implementing gender mainstreaming across the Centre (including HR policy and practice to achieve gender balance in organisational structures and research processes and generation of gender analytical outputs);
 - an environmental management system with targets for reducing carbon footprint, metrics on energy use;
 - research uptake strategies;
 - monitoring systems;
 - use of impact evaluation.
- **A performance element (bonus)** This was awarded to those Centres demonstrating sufficiently good performance against the agreed key deliverables and milestones. Originally it was agreed that the performance component would be an additional 20% of the core funding allocated to the Centre that year but, after new funding was secured in 2012 (as mentioned above), the component percentage was increased to 25%. The MOUs and letter confirming approval of multi-year DFID funding specified the level of funding each Centre would receive for: 2011-12, 2012-13, 2013-14 and 2014-15. They also specified the amount of the discretionary performance element (bonus) that each Centre could potentially be awarded each year, this being an ‘all-or-nothing’ rather than a graduated sum. The annual letters of assessment from DFID to each Centre in response to the annual review summarised their performance, provided feedback, and proposed actions. These letters also communicated the decision on, and reasons for, whether or not the Centre would be awarded the performance element. If awarded to a Centre in any one year, there would be no guarantee that the bonus would be awarded subsequently.

Table 3: Flow and breakdown of the Centres' core and bonus payments

2011-12	Core Payments		Bonus
	Oct-11	Apr-12	Aug-12
AVRDC	340,000	720,000	0
CABI	900,000	1,320,000	427,600
icipe	353,033	960,000	262,400
ICIMOD	0	0	0

2012-13	Core Payments		Extra Payment	Core Payment	Bonus
	Oct-12	Dec-12	Jan-13	Apr-13	Aug-13
AVRDC	720,000.00	-	-	760,000	0
CABI	1,320,000.00	-	1,336,000*	1,988,000**	994,000
icipe	960,000.00	-	1,332,967*	1,628,000**	814,000
ICIMOD	-	1,098,000.00	-	549,000	0

2013-14	Core Payment		Bonus
	Oct-13	Apr-14	Aug-14
AVRDC	760,000	760,000	0
CABI	1,988,000	1,984,000	994,000
icipe	1,628,000	1,624,000	0
ICIMOD	549,000	556,635	0

2014-15	Core Payment
	Oct-14
AVRDC	760,000
CABI	1,984,000
icipe	1,624,000
ICIMOD	556,635

* Unspent performance bonus shared between CABI and *icipe*

** Funding to CABI and *icipe* increased following first annual performance review

The implicit Theory of Change (ToC) in implementing this new approach has been that *“longer term funding, a tighter set of agreed deliverables, a mechanism for regular dialogue and partnership, and a performance bonus will improve performance of the individual centres in specified areas, and lead to results more closely aligned to DFID priorities”*¹¹. Whilst no explicit ToC was developed by DFID with the Centres at the beginning of the PMFM pilot, a logframe was drawn up indicating the impact, outcome and outputs for the *“Support to international Agricultural Research that benefits poor people”* programme. The logframe includes the baseline, annual milestones and targets at outcome and output level for AVRDC, CABI and *icipe* and, partially, for GFAR. ICIMOD is not included in the logframe as it was brought into the programme at a later stage. In the absence of a ToC, the evaluation team developed an initial ToC during the inception

¹¹ Page 2, Evaluation ToRs (see Annex 1)

phase. This was then used during interviews with stakeholders and further refined as a consequence. More detail is provided in Chapter 4, Section 4.1.

Table 4: Key deliverables agreed by the IARCs

Key deliverables by IARCs	
AVRDC	
1. New and improved vegetable lines with good nutritional and/or disease resistant properties (releases in at least 3 countries) in 2011; at least 3 new indigenous vegetable lines expected by 2013-2014: two additional countries, 7–10 varieties. 2. New grafting technology for tomato and chilies providing greater flooding and disease tolerance assess impact 2012, publication 2013, test models 2012–2013; monitor uptake 2013–2014. 3. Scaling up small vegetable gardens in >7 countries reaching >100,000 households; robust impact assessment framework in place with at least one peer reviewed impact study published by 2014.	
CABI	
1. Roll out of new national plant health systems in 30 countries, with 500 plant doctors of whom >50% are accredited, reaching 2 million farmers by 2014. Regular analysis of clinic data for quality and impact. 2. Knowledge Bank v3 launched, providing open access information on >2500 pests (focusing on diagnosis, treatment and distribution), integrated into plant health systems in >5 active Plantwise countries. Secure system to allow national partners easily to digitise and manage their information. 3. Step change in CABI M&E systems; strategy and approach for ex-post impact evaluation in place, meeting standards equivalent to SPIA. Two ex-post impact evaluations prepared for publication in peer review journals by 2014; external evaluation of Plantwise by 2014. 4. New innovative work around use of mobile advisory services.	
icipe	
1. Scaling-up of two <i>icipe</i> technologies: push-pull control of striga in cereals in Africa, and Integrated Pest Management (IPM) technology for control of African fruit fly (currently operating in 8 countries). 2. Independent External Evaluation of <i>icipe</i>'s capacity development investments. 3. At least two rigorous ex-post impact assessments of <i>icipe</i> technologies demonstrating impacts on productivity, income, nutrition, or livelihoods.	
ICIMOD	
1. Mountain agriculture and climate change ▪ New knowledge products developed on the cryosphere, especially on glaciers and snow cover, melting, and permafrost status. ▪ Two glacier mass balancing studies ongoing and preliminary information on glacier melt acquired. ▪ One publication in a peer reviewed journal on the cryosphere. ▪ Analysis under way on linkages between changing water availability and agriculture in at least two pilot areas. 2. A step change in ICIMOD's systems for generating regular, ex-post impact assessment. ▪ Revised M&E system which incorporates impact studies, staff training for impact assessments and launch of three specific studies. At least two independent external studies completed. 3. Strengthening the quality and quantity of scientific outputs ▪ More than double the amount of peer-reviewed publications (journal articles and book chapters) from 17 (now) to 40. Train staff; mandate publication.	
GFAR	
1. Establishment of robust systems for monitoring, impact assessment and evaluation of GFAR's work. 2. Improving investments: Mechanisms established for bringing together more effective monitoring of knowledge in investments and capacities of AR4D systems. 3. Scaling-up of initiatives to develop innovation systems research and practice based on robust gender-sensitive analysis and tools.	

3. Approach and Methodology

This section presents a summary of the evaluation's approach and methodology, along with a description of the key challenges faced by the evaluation team during the data collection process. A more detailed discussion of the approaches and methods discussed herein are contained within the inception report.

3.1. Approach and methodology

This evaluation called for the use of a combination of analytical frameworks, in order to evaluate both the PMFM itself, and how it has contributed to the delivery of key organisational and technical deliverables by the IARCs. The evaluation also takes into account the processes that transpired towards the achievement of the outcomes.

For this, the evaluation team applied a theory-based approach and, in the inception report, indicated that four types of analytical approach would be applied in the evaluation: 1) OECD-DAC evaluation framework; 2) the Theory of Change; 3) a stand-alone Value for Money (VfM) analysis; and 4) contribution analysis.

In reality, it was not possible to conduct a full contribution analysis. Although the evaluation team had originally intended to deploy this method in a more comprehensive manner, this would have required considerably more in-depth questioning during each country visit, and interviews with a wider range of stakeholders, for which time and resources did not allow. It is also apparent from the research that was conducted that application of full contribution analysis would have been extremely challenging given the wide range of activities each Centre was carrying out and the fact that many were being funded from other budgets as well as the DFID PMFM grant. Despite this, comparative analysis was undertaken, based on interviews with two other centres that do not receive PMFM funding (see below).

The analytical approaches applied during this evaluation were:

- **The OECD-DAC evaluation framework** - the evaluation was guided by the OECD-DAC criteria. The evaluation questions (see the Evaluation Matrix in Annex 4) are organised along the lines of relevance, effectiveness, efficiency, impact and sustainability criteria (see Box 1 below). Sub-questions were formulated for each of the key evaluation questions and mapped onto the required data collection methods and data sources in the Evaluation Matrix.

Box 1: Application of OECD-DAC Evaluation Criteria in the PMFM Evaluation

RELEVANCE: The extent to which the PMFM approach is suited to the priorities and policies of both the donor (DFID), the recipient (research centres) and the beneficiary target group (poor people). It is mainly at this stage that the formulation/analysis of a Theory of Change played a crucial role.

EFFICIENCY: Efficiency measures the outputs – qualitative and quantitative – in relation to the inputs. It is an economic term to assess the extent to which aid uses the least costly resources possible in order to achieve the desired results.

EFFECTIVENESS: A measure of the extent to which the PMFM approach attains its objectives. The evaluation of both efficiency and effectiveness has been highly supported by the “Value for Money” analysis.

IMPACT: The positive and negative changes produced by the PMFM approach, directly or indirectly, intended or unintended. This involves the main impacts and effects resulting from the funding method on the local, social, economic, environmental and other development indicators relevant with reference to the Goal, as set out in the Logframe of the DFID programme named “Support to International Agriculture Research Centres that Benefits Poor People”.

SUSTAINABILITY: Sustainability is concerned with measuring whether the benefits of the implementation of the PMFM are likely to continue after donor funding has stopped.

- **Theory of change**¹² – the ToC maps the “pathways of change” underlying the PMFM. It has guided the analysis of the relevance and quality of the design of the PMFM and the examination of alternative causal explanations, including both intended and unintended consequences. As the logic behind the PMFM was not made explicit at the beginning of its implementation, a draft ToC was prepared during the inception phase of the evaluation, based on existing documentation. The draft ToC was then used as a platform for discussion during the visits and interviews held with both IARC management and DFID staff. The validated version of the ToC was then used for comparing the IARCs’ actual achievements with the expected outputs, outcomes and impacts set out in the pathway of change (see Chapter 4 Findings, Section 4.1). The ToC is consistent with the logframe underlying DFID’s programme “Support to International Agriculture Research Centres that Benefits Poor People”.
- **Stand-alone Value for Money (VfM) Analysis** – guided by the 3Es VfM assessment framework, our VfM analysis focused on the impact of the PMFM on the IARCs’ planning and budgeting capacity, definition of priorities, quality of performance dialogue with DFID, performance vs agreed indicators and translational strategy for end-user uptake.

¹² A Theory of Change (ToC) is an analytical framework defining all steps required to bring about a given long-term goal. The ToC on which the PMFM is based was not made explicit at the beginning of its implementation, apart from a general assumption “that longer term funding, a tighter set of agreed deliverables, a mechanism for regular dialogue and partnership, and a performance bonus will improve performance of the individual centres in specified areas, and lead to results more closely aligned to DFID priorities” (see Evaluation ToR).

It is important to note that the VfM component of this evaluation has not been structured as a “typical” VfM review, which would seek to align or match inputs (donor funds) with outputs (performance) and eventual outcomes. Such input-to-performance alignment was not possible due to the unrestricted nature of funding, and no requirement for IARCs to report to DFID on the specific purposes for which funding was used.

Instead, the review focussed on the performance of the PMFM as a tool to power greater innovation and performance on the part of research centres. Specifically, the ToR focused the VfM line of inquiry on the efficiency and effectiveness of the PMFM funding mechanism. To fulfil that request, the VfM assessment has undertaken a high-level review of each Centre’s self-reported performance against key deliverables agreed to with DFID, and has drawn conclusions from the following evidence streams: 1) performance reporting; 2) overall IARC financial reporting; 3) alignment of performance with key deliverables identified by DFID; and 4) qualitative responses to key evaluation questions based on the above evidence and interviews with IARCs.

As explained above, theory-based contribution analysis was not carried out in full as originally anticipated. However, some comparative analysis was undertaken, based on the comparison of the five DFID-funded IARCs under the PMFM with two other IARCs currently not receiving DFID funding of any type. These centres were:

Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), Turrialba, Costa Rica - an independent international centre for high education and innovation for development, financed by multiple international donors under different funding schemes. It is active in Central and South America in AR4D in cooperation with both National Agricultural Research institutions (NARs) and International AR Centres.

International Centre for development oriented Research in Agriculture (ICRA), Wageningen, Holland - an independent non-profit organisation, founded in 1981 by European members of the Consultative Group on International Research (CGIAR). ICRA’s focus is on strengthening the capacity of national partners to link technology, market development, policy and social organisation to ensure the sustainable use of natural resources and reduce poverty. ICRA’s staff are active in Asia, Africa, and South America.

The rationale underpinning the selection of these two centres was as follows:

- both centres have a long and wide experience in AR4D and capacity building but in different geographical areas (with the only overlap of South America);
- both centres have an excellent international reputation for their scientific production, dissemination activity and strong links with international development agencies;
- both centres are financed by multiple donors and experienced in fund management under different mechanisms; both count on robust internal M&E systems and were available to cooperate in evaluation exercises.

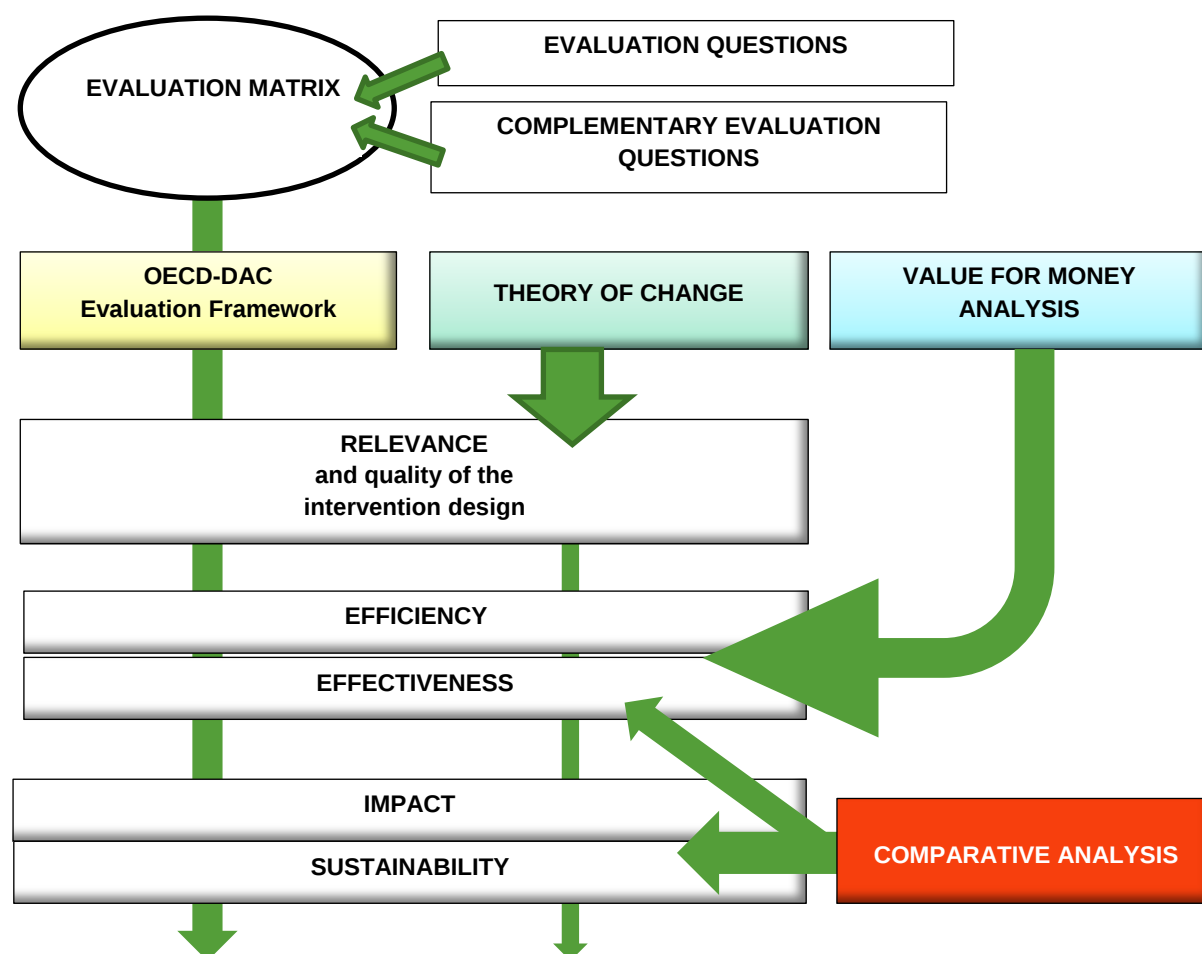
However, it is important to note that detailed comparative analysis of the five DFID-funded IARCs under the PMFM was not pursued, e.g. by examining the relative strengths and weaknesses of each. There were two reasons for this. First, it was made clear to the Centres that the PMFM evaluation was not an evaluation of each Centre *per se*, but rather an evaluation of the PMFM as a whole. Secondly, comparative analysis of the

Centres may not have been constructive or informative due to the variations between the Centres in terms of location, maturity, focus and activities pursued.

3.2. Overall evaluation logic

The evaluation was based on an integrated approach of the different analytical instruments described above, and followed OECD-DAC evaluation criteria. The analyses of each evaluation criteria were supported by a specific analytical framework and/or approach as in Figure 1 below.

Figure 1: Overall evaluation logic



3.3. Evaluation methods and analytical techniques

The empirical evidence for this evaluation was collected and analysed using a mixed methods approach consisting of both qualitative and quantitative methods which were applied in a complementary way.

During the inception phase, four categories of key informants were identified: 1) DFID staff; 2) counterparts in the Research Centres; 3) other donors and 4) third party experts. Key informants within each Centre were identified through discussion with each Centre's Director.

Research was conducted between October 2014 and January 2015, with further clarification and verification of information taking place up until September 2015. Methods used were:

- desk-based document review and quantitative secondary analysis;
- small sample survey to gather the views of other donors on DFID's PMFM;¹³
- semi-structured interviews (phone and in-person) with DFID staff, IARC staff and centres approached for comparative purposes;
- focus group discussions with end users of the IARCs' outputs and commercial and other implementation partners; and
- field visits to the IARCs' headquarters/main offices and select demonstration/project sites.

Annex 2 presents the various data collection tools used by the evaluation and Annexes 8 and 9 set out the list of stakeholders met and documents/data consulted.

The different sources of evidence were analysed systematically. Qualitative information arising from the recorded interviews and focus group discussions was transcribed and coded using matrices and thematic areas arising from the interviews. Quantitative data was analysed using Excel, and used to support specific findings. Some of the most relevant analyses undertaken can be found in Annex 4 (Summary of Interviews) and Annex 7 (Results of survey with other donors).

The evaluation was undertaken in accordance with DFID Ethics Principles for Research and Evaluation. Consent of participants in the evaluation's data collection activities was secured and confidentiality of key informants ensured. Individuals that were key informants were "de-identified" after the qualitative analysis and are not referred to by name in this evaluation.

Triangulation of data occurred in a number of ways and through a variety of information sources, in accordance with the mixed methods approach. For example, whilst many of the findings referred to in Chapter 4 are based on information provided during interviews, these were corroborated through document review, both to inform the tailoring of the interview checklists with particular stakeholders, and to cross-check details against documented material. Where necessary, further follow up has also been conducted, again through detailed document review, but also through repeat interviews with more detailed questioning on key points, to help ensure that findings were sufficiently evidenced. In addition, review of findings by IARCs themselves has allowed further clarification of factual information and interpretation to take place.

¹³ A questionnaire was designed and sent to the three contact persons from SDC, SIDA and EC suggested by DFID during the kick-off phase of the evaluation and also to contact persons of "other donors" as informed by the centres: GIZ, USAID, USDA, ACIAR, DGIS, Bill & Melinda Gates Foundation, AGROPOLIS Foundation, Biovision, IDRC and the Ministry of Foreign Affairs of Norway. The questionnaire can be found in Annex 2. Key informants from "other funders" are classified as Category 3 in this evaluation.

3.4. Challenges

The key challenge faced by the evaluation team related to the **balance of the available qualitative and quantitative evidence required by the VfM analysis**. Information and data generated by the beneficiary IARCs on the impacts of DFID funding on both the internal management process and the intended end users and beneficiaries was particularly limited. This reduced the extent of a quantitative assessment of IARCs' performance relative to the amount of funds received under the PMFM scheme. Other important considerations affecting the extent of the evaluation are:

- There are a large number of possible external factors (political, environmental, institutional, etc.) actually determining/conditioning the achievement of the IARCs' expected results and impacts, and consequently inhibiting a strict quantitative evaluation of DFID's funding contribution;
- Because DFID's PMFM is "unrestricted" and used for co-funding multiple research programmes, attributing the Centres' outcomes to one source of finance (or funding mechanism) is not possible; and
- The generation of the most relevant expected impacts (i.e. social, environmental, institutional, and political) is still in progress and their values are not yet measured and/or accounted by the IARCs.

Despite these constraints, the qualitative analysis was found to be meaningful and reliable given the convergence of opinions amongst the IARCs on key issues relating to the PMFM, and the documentary evidence gathered.

In addition to the limited data availability, a further series of methodological constraints related to the quality of the data itself. These are presented below, along with the evaluation team's response to such challenges:

- **Risks of bias in subjective assessment** - the inception report identified three types of bias that could affect the quality of data: courtesy bias, positional bias and attribution bias. To counter these biases, the methodology incorporated:
 - Clear strategies for data collection and analysis;
 - A clear evaluation plan based on the development of a comprehensive evaluation matrix;
 - Categorising, coding and using matrices to systematically analyse qualitative data;
 - Stakeholder mapping and careful consideration of sampling to ensure that views from all key stakeholders were taken into consideration;
 - Semi-structured, recorded interviews based on agreed checklists of questions (see Annex 2);
 - Triangulation of methods, data sources and theories/analytical frameworks. Although extensive triangulation of data sources took place, where documentary evidence was lacking, it was not always possible to verify certain facts and statements.
- **Separating effects of DFID's support from others' assistance** - although the effects of DFID's core funding provided under the PMFM were difficult to separate from the effects of the support provided by other donors, the ToC and VfM analyses, including the pathways and assumptions related to efficiency, effectiveness and impact, helped to identify the results pathways of the PMFM funds. Triangulation

between reports from the IARCs with interview findings from different key stakeholders also helped to separate out the effects of DFID's support.

- **Establishing a reliable basis for comparing the PMFM with conventional funding** - this challenge was significant and it was very difficult to establish a reliable basis for comparison. The evaluation sought to contrast two aspects of conventional funding (core funding and project funding) with the PMFM; yet the focus became more of a comparison between core funding contribution (without the bonus component of the PMFM) and project funding. There are, in fact, limitations in both types of comparison. The Centres themselves are each very different and, qualitatively, it was not possible to control for all other influencing factors. Further, within the IARCs themselves, only CABI has "experienced" the full PMFM in the sense that it is the only centre that received the bonus every review period, thus limiting the basis for comparison. In hindsight, the evaluation may have benefitted from pursuing a line of comparative enquiry *between* the five Centres, in order to learn more about each Centre's experiences with other donors in relation to any core funding they may have received, levels of interaction and expectations regarding aspects such as impact assessment and gender.
- **Distinguishing between the two (core and bonus) elements of the PMFM** - the evaluation team sought to address this through careful consideration whilst developing interview checklists, in particular the checklist for the VfM analysis interviews (see Annex 2). The evaluation team handled the matter carefully as only two Centres had received bonuses during the period under evaluation so only their responses were based on first-hand experience.

4. Key Findings

This section presents the key findings of the evaluation, organised by OECD-DAC criteria and in response to the evaluation questions. The sub-questions that guided the team in addressing each of these core questions are contained in the Evaluation Matrix (Annex 4).

4.1. Evaluation Question 1: Do DFID and each of the Centres share an understanding (implicit Theory of Change) of the aims, operation and expected effects of the multi-year performance funding mechanism?

This section looks at the relevance and quality of the intervention design, beginning with findings regarding the IARCs' understanding of the aims, operation and expected effects of the multi-year PMFM as encapsulated in the ToC. It then goes on to present the outcomes of these discussions in terms of validating and further refining the provisional ToC. The unit of analysis here is broadly the contribution of DFID assistance to the Centres, in addition to the logframe and ToC.

4.1.1. IARCs' understanding of the implicit Theory of Change

The implicit Theory of Change in implementing the PMFM has been that *“longer term funding, a tighter set of agreed deliverables, a mechanism for regular dialogue and partnership, and a performance bonus will improve performance of the individual centres in specified areas, and lead to results more closely aligned to DFID priorities”*. As noted in Chapter 2, no explicit ToC was developed when DFID worked with the IARCs to establish the PMFM. However, logframes with agreed key deliverables and milestones were established with each Centre. As mentioned earlier in this report, the evaluation team developed a provisional ToC during the inception phase, which was shared with DFID and the Centres prior to the field research.

With the exception of CABI, there was a lack of understanding on the part of the IARCs on the PMFM's implicit ToC. As a senior IARC management staff member said, *“The ToC was certainly not explicit at the beginning, there's no clarity on where they [DFID] were heading, and I have to say, presented like this [the Theory of Change diagram], this is the first time I have realised that some of these activities are part of the funding mechanism”*.

This limited understanding of the implicit ToC behind the overall support programme created uncertainty about DFID's expectations, mainly in relation to the annual progress reporting on the IARCs' deliverables. All the IARCs expressed that a more explicit Theory of Change would have been extremely useful in clarifying DFID's expectations. For example, it was not clear to some IARCs at the beginning whether the deliverable on gender is internal/organisational or external/research output-focused. This would also have helped the IARCs understand the logic behind the demands, and the direction in which DFID is heading – all of which the IARCs believed are crucial in understanding the mechanics of the performance bonus element.

ICIMOD, *icipe*, and AVRDC were not clear on the criteria for awarding the bonus payment given that there are multiple deliverables for each centre, with some appearing to be more

important in determining qualification for the performance bonus. The IARCs suggested that greater clarity on the priorities for the performance payment would assist their ability to deliver what DFID considers are key deliverables.

AVRDC, for example, also expressed the need for DFID to clarify certain terms, such as *appropriate and adequate*, in order to have a shared understanding of DFID's expectations against what the IARCs believed they had agreed to deliver. Clarity on how DFID would measure *step change* was also regarded as something that would have been beneficial in understanding the improvements DFID expects of them.

Having said this, however, each Centre was invited to deliver a presentation to DFID on their annual performance report, allowing DFID to obtain further detail and understanding on each Centre's performance. The process also allowed for Centres to provide further evidence in support of their self-assessment, after which a copy of DFID's agreed overall assessment was shared with each Centre. This opportunity for feedback and interaction should have provided the clarity for each Centre to understand their performance and expectations for the coming years.

Notwithstanding the above, the collaborative development of an explicit ToC at the beginning would have enabled DFID and the IARCs to share a high-level understanding of the PMFM. Moreover, as in other types of support and development interventions, continuous dialogues are needed to negotiate the meaning of the specifics within the ToC for a more dynamic understanding of the Centres' deliverables and achievements in a rapidly changing context.

4.1.2. Validation of the Theory of Change

The IARCs generally agreed with the proposed ToC, with a consensus on the main drivers of change and the assumptions. The following comments, however, were raised by the key informants, particularly on the pathway of change contained within the ToC:

- **Time horizon of the expected changes** - the time it takes for the identified processes within the Theory of Change is not uniform. Some of the management changes, including capacity building in certain areas, will take longer than three years. This raises the question of when the outcomes and impact are expected to be produced and thus evaluated.
- **Partnerships and stakeholder engagement** - the ToC must recognise that, whilst the PMFM focuses on improving internal management mechanisms, IARCs operate through various partners and stakeholders involved at different stages of programming, research and uptake. The IARCs noted that the establishment of effective partnerships must be considered as a precondition for successful and sustainable impacts and, as such, an outcome in itself. Therefore, the ToC must put more weight on stakeholder engagement and ownership.
- **Outcome-level measures of "research quality"** should define "quality" not only in terms of the number of scientific publications released through high impact factor peer-reviewed journals, but also in terms of how and to what extent research output is suitable for promoting development impacts. The ToC should also recognise that better communication of research outputs leads to uptake and impact.

- **More emphasis on the development of systems** to foster i) research-extension linkages and ii) extension-farmers activities. These are critical links that will connect the intended beneficiaries to research.
- **Outputs and intermediate outcomes must be defined better** to highlight the drivers of greater gender equality.

The IARCs also highlighted a number of exogenous factors affecting the “pathway of change” and the assumed causality between the results. They noted that these factors must be adequately considered during annual assessments for a more nuanced understanding of the progress they are making against the agreed deliverables. The factors identified by the IARCs are given in what follows.

- IARCs operate in multiple countries, within specific social and political milieu and in cooperation with a large number of diverse national and international partners.
- Having multiple donors implies that the IARCs are operating within different funding schemes and requirements that, in turn, means that expected outputs and outcomes are not temporally, physically and spatially homogeneous. The quality and relevance of the IARCs’ outputs are affected by the context and conditions in which they are generated.
- The ability of the IARCs to produce long-term and sustainable impacts depends not only on their internal capacity to maintain specific strategic core activities and/or infrastructures (e.g. gene bank [AVRDC], bio-molecular laboratories [AVRDC, *icipe*] and remote sensing infrastructures [ICIMOD]), but also on the willingness of donors to fund such activities/infrastructures. These assets are usually and paradoxically unattractive to donors despite their centrality to the IARCs’ operations. The maintenance of such core assets is not considered in the Theory of Change.

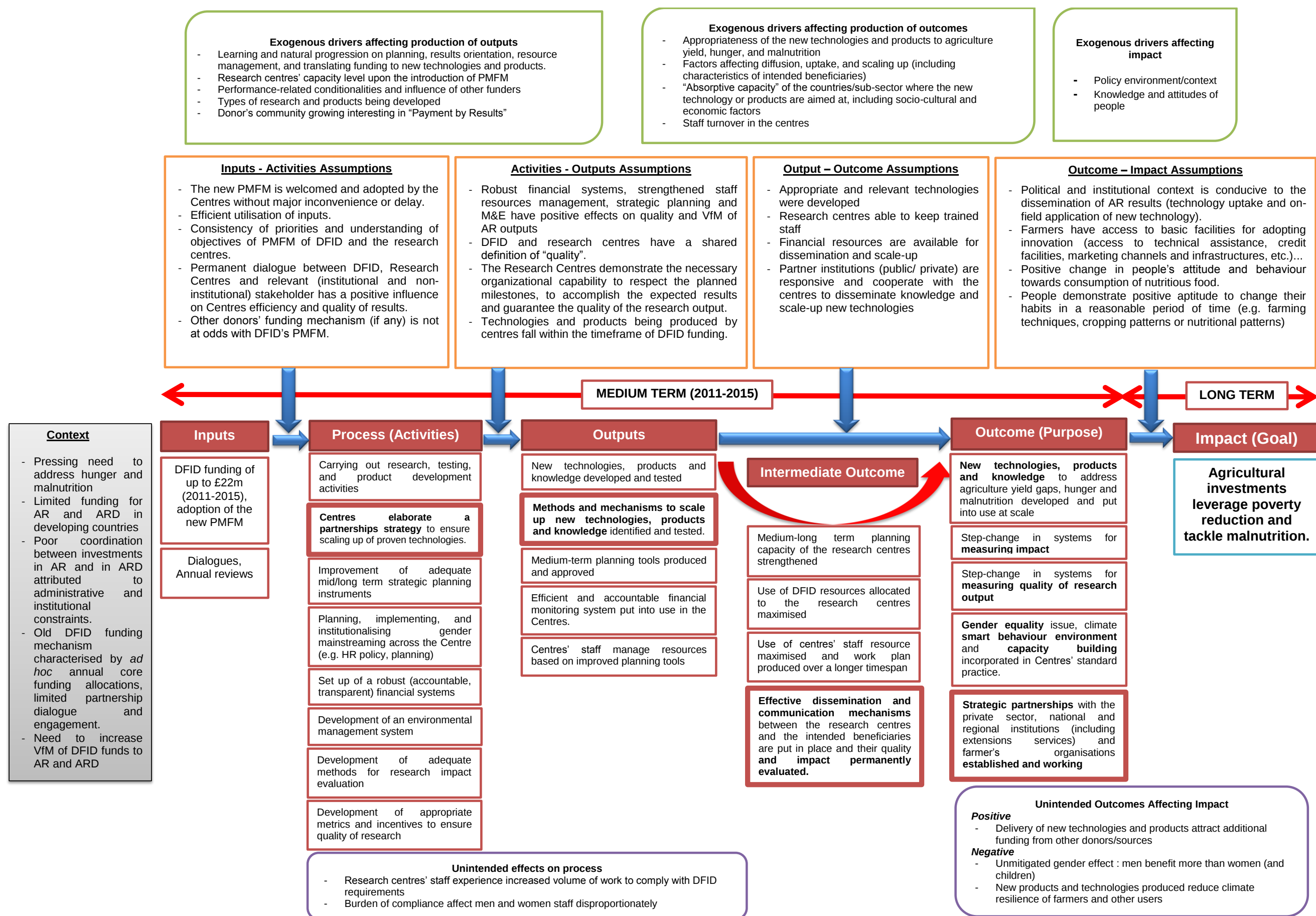
Based on the observations and suggestions raised during consultations, as summarised above, the draft Theory of Change presented in the inception report was adjusted. The new version is intended to improve the shared understanding of DFID and the IARCs of the processes and mechanisms underlying the PMFM and consequently the performance of the IARCs in the future. Our proposed final version of the ToC for DFID’s PMFM is presented in Figure 2 overleaf.

In conclusion, and in response to the question of whether DFID and each of the Centres share an understanding of the aims, operations and expected effects of the multi-year PMFM, it is clear that this understanding has evolved over time, on the part of both DFID and the Centres. This is also reinforced by the findings related to other evaluation questions on impact studies and gender. Elaborating key deliverables with each Centre has certainly contributed to this understanding, but the PMFM processes and DFID’s expectations relating to certain deliverables could have been made clearer at the outset. The development of an explicit ToC with the Centres at the beginning would also have helped improve understanding of the relationship between the Centres’ measurable outputs and their contribution to DFID’s longer term objectives.

Notes on Figure 2:

- the boxes with thicker red borders are new or revised
- the connecting arrows were all removed, based on the suggestion of the IARCs
- a time horizon arrow was introduced above the pathway of change.

Figure 2: Final Theory of Change



4.2. Evaluation Question 2: What has been the response of the Centres and the reaction of other donors and stakeholders and, in their judgement, how effective to date is this mechanism proving to be?

4.2.1. IARCs' reaction to the PMFM

In this section, the contribution of DFID's assistance to the Centres and the effects of the PMFM are examined. There was a general consensus amongst the IARCs that DFID's PMFM, and particularly the unrestricted, multi-year core funding, plays a critical role in supporting i) core research activities, and ii) scaling-up of research outputs. The Centres that received the performance component, however, also considered it to be extremely useful for strengthening the internal capacity required to create substantial impacts at end user level, and promoting new research lines. This was even despite the fact that, by its nature, they could not plan for its use in advance. With its high degree of predictability, however, it is the unrestricted, multi-annual core funding component that was deemed to be of most importance to the Centres' operations through:

- ensuring a constant and predictable flow of financing to core research activities, at least in a three-year perspective, thereby avoiding the uncertainty of annual funding mechanisms adopted by the majority of donors;
- strengthening crucial management and institutional dimensions otherwise not financed under project-based funding, such as i) strategic planning capacity, ii) internal/overall M&E, iii) hiring of essential skills and expertise not currently available, and iv) socioeconomic and environmental assessments and impact evaluation capacity;
- supporting innovation in research and the necessary time for the scientists to write publications;
- shifting fundraising goals from small-scale, short-term research projects to larger, programmatic funding, thereby reducing management costs;
- ensuring financial stability and improving their credibility to other donors making them more attractive to fund;
- enabling access to a larger number of funding opportunities as they are able to guarantee co-financing to donors that require it;
- reinforcing the IARCs' capacity to generate lessons from experience through ex-post evaluations;¹⁴ and
- in the cases of *icipe* and ICIMOD, supporting long-term planning and donors' alignment through an improved strategic planning ability. This puts the Centres in a better negotiating position with other donors.

4.2.2. Other donors' reaction to the PMFM

Only three of the ten IARC donors surveyed had knowledge of the PMFM and, in those cases, this appeared to be more an outcome of informal interactions than official channels of

¹⁴ Ex-post evaluations are generally not financed by international donors. PMFM allows for the assessment both of the impact and the sustainability of old research projects' outcomes and gathers essential lessons for future planning.

communication. For example, the Swiss Agency for Development and Cooperation (SDC) expressed surprise that DFID had negotiated the PMFM with *icipe* without informing them beforehand, despite their “Silent Partnership Agreement”, although they did confirm that they had received a copy of the final PMFM agreement.

Some information on the PMFM has also been provided through inter-donor communication or centre management information. This is the case for the Executive Secretary of the Association of International Research and Development Centers for Agriculture (AIRCA), of which four of the five Centres (not GFAR) are members.

Nevertheless, the knowledge of other donors of DFID’s PMFM was certainly limited and, therefore, the donors surveyed were not able to judge the effectiveness of the funding mechanism, unless through speculation.

The PMFM is considered to provide a clear incentive for the IARCs to improve results and performance orientation and comply with DFID’s “rules of the game” for the funding support. It is also regarded as a chance for the IARCs to strengthen their management, stimulate research activities and pay sufficient attention to scaling-up of results and achieving impact.

The donors consulted in the evaluation perceive no conflict between their own funding mechanisms and DFID’s PMFM. According to information SDC has received from *icipe*, the cooperation between DFID and SDC has supported them in their effort to increase efficiency and reduce administrative burdens. According to the European Commission (EC), withdrawal of DFID’s core funding to GFAR has impacted on outputs foreseen in GFAR’s Medium Term Plan, but there has been no direct conflict with funding mechanisms used by the EC.

Awareness of creating incentives balanced between easily measurable outputs and more strategic work is important. A key informant noted that, because of the reporting system, there might be a risk of creating perverse incentives to deliver easily measurable outputs at the expense of more strategic work or risky but important research.

This evaluation question asked ‘what has been the response of the Centres (to the PMFM) and the reaction of other donors and stakeholders, and, in their judgement, how effective to date is the mechanism proving to be?’ The response, as far as the stakeholders were informed, was positive. Findings in this section confirm the benefits that were expected of the PMFM, and particularly the benefits of multi-year core funding, as well as the bonus component where it has been awarded.

4.3. Evaluation Question 3: What is the evaluators’ (independent, evidence-based) assessment of the intended and unintended, positive and negative effects of the funding mechanism? How can it be made more effective?¹⁵

This section seeks to address the extent to which the PMFM has contributed to a more efficient performance of the IARCs. Specifically, the evaluation has asked to what extent the outputs set out in the logframe of the “Support to International Agricultural Research that benefits Poor

¹⁵ The assessment should cover both delivery of the centres against their core research deliverables as set out in the agreement with DFID, as well as the cross-cutting issues of gender, environmental management systems and value for money

People” programme and, additionally in the ToC, have been achieved by the IARCs. The ToC identifies the processes and activities that are instrumental in achieving these outputs and, by investigating these processes and, ultimately, the achieved outputs, the evaluation has sought to uncover the evidence to inform the contribution story.

The discussion that follows revolves around the following outputs and associated indicators in the logframe, namely:

- **Output 1:** *Centres generating high quality research outputs.*
- **Output 2:** *Organisational behaviours which underpin effectiveness and value for money for DFID are strengthened.*

4.3.1. Output 1: Centres generating high quality research outputs

The units of analysis in this section are, for point 1, the performance of the IARCs, and, for points 2–4, the contribution of DFID assistance to the Centres and the effects of the PMFM.

1. Centres on track with agreed deliverables (ToC: New technologies, products and knowledge developed and tested)

During the initiation of the PMFM, DFID and the IARCs engaged in a process to define and agree the “Key Deliverables” as identified within the DFID Business Case. These are what the IARCs aimed to achieve within the funding period and were the basis of their annual performance assessments. This participatory process certainly contributed to orienting the IARCs’ focus towards better research management and output quality, and also helped promote greater ownership of the results by the IARCs.

A summary of the IARCs’ performance in achieving these key deliverables is presented below, based upon more detailed assessments of AVRDC, CABI, *icipe* and ICIMOD in Annex 6.¹⁶ As mentioned in the introduction to this report, the evaluation has employed four different units of analysis. For this section, the unit of analysis was the performance of the IARCs themselves in relation to the specific key deliverables agreed with DFID (note that delivery against cross-cutting objectives including gender and environmental management systems is covered under Output 2 findings).

(a) AVRDC

As indicated in Table 4, the key deliverables for AVRDC were:

- i. New improved vegetable lines with good nutritional and/or disease resistant properties (releases in at least 3 countries) in 2011; at least 3 new indigenous vegetable lines expected by 2013- 2014: two additional countries, 7–10 varieties.

¹⁶ Note that Annex 5 also provides details of actions taken against the key deliverables of each Centre, particularly in relation to impact and sustainability. This annex is drawn upon in this section particularly for the material on GFAR.

- ii. New grafting technology for tomato and chillies providing greater flooding and disease tolerance assess impact 2012, publication 2013, test models 2012–2013; monitor uptake 2013–2014.
- iii. Scaling-up small vegetable gardens in >7 countries reaching >100,000 households; robust impact assessment framework in place with at least one peer reviewed impact study published by 2014.

As deliverables that include process milestones that relate to the measurement, recording, dissemination and uptake of new technologies, the assessment of performance against delivery has looked at what progress has been made in relation to these milestones.

As can be seen from Table 4 in Annex 6, performance has been better (with greater value for money) in some areas than others. Overall, value for money was good for the first deliverable above, and mixed for the second and third. Performance was found to be good in that:

- Core funding has advanced research in tomato grafting and nutrient-dense home gardening;
- The PMFM focused AVRDC's institutional attention on the need for robust impact evaluations of research;
- AVRDC has begun processes to enhance staff capacity to undertake rigorous assessments of the uptake of new technologies.

Where performance has lagged, however, has been in the area of actual rigorous impact assessment of new technologies. While good ground has been laid for this, it has yet to yield strong results. Moreover, strategies to promote broad-scale uptake of new technologies have been less successful than anticipated in relation to the second key deliverable above (see Table 4 in Annex 6). Knowledge diffusion channels appear to be less developed than desired and it is not clear that AVRDC has a strategy to strengthen broad-scale diffusion. Lacking such a strategy, and consequent increased uptake, it is difficult to conduct the impact assessments as desired. Interviews with AVRDC on this matter revealed that *"We cannot guarantee scaling up of our projects unless we exert pressure on external partners or other donors. Long term impact depends on the public sector or emergence of the private sector. If commercial upscaling, you are looking at impact pathway of ten years."*

(b) CABI

The specific key deliverables for CABI were:

- i. Roll out of new national plant health systems in 30 countries, with 500 plant doctors of whom >50% are accredited, reaching 2 million farmers by 2014. Regular analysis of clinic data for quality and impact.
- ii. Knowledge Bank v3 launched, providing open access information on >2500 pests (focusing on diagnosis, treatment and distribution), integrated into plant health systems in >5 active Plantwise countries. Secure system to allow national partners easily to digitise and manage their information.
- iii. Step change in CABI M&E systems; strategy and approach for ex-post impact evaluation in place, meeting standards equivalent to SPIA. Two ex-post impact evaluations prepared for publication in peer review journals by 2014; external evaluation of Plantwise by 2014.
- iv. New innovative work around use of mobile advisory services.

Whilst there are four key deliverables, these are made up of a total of seven sub-deliverables, key aspects of which were assessed for VfM, resulting in six good VfM ratings, one neutral VfM rating and only one negative VfM rating (for more detail, see Annex 6, Table 7). This indicates an overall good level of performance against key deliverables. Areas in which performance was good include CABI drawing on core funding to strengthen institutional M&E systems (Deliverable 3 above) and to improve structures for technology roll-out, with bonus payments being invested in innovative work.

Whilst CABI has lagged in robust impact assessment, it did commission an externally led evaluation of the Plantwise programme in 2013-2014 and has prepared an impact study for peer review. Meanwhile, it has had difficulties in hiring sufficient capable M&E staff able to enhance progress in impact assessment. As CABI have noted, *“it takes time to hire good quality M&E staff, induct them into the organisations and have them deliver results”*.

(c) *icipe*

The following key deliverables were agreed between DFID and *icipe*:

- i. Scaling-up of two *icipe* technologies: push-pull control of striga in cereals in Africa, and IPM technology for control of African fruit fly (currently operating in eight countries).
- ii. Independent external evaluation of *icipe*'s capacity development investments.
- iii. At least two rigorous ex-post impact assessments of *icipe* technologies demonstrating impacts on productivity, income, nutrition, or livelihoods.

icipe's deliverables were more strongly focused on scaling-up and measurement processes than those of the Centres so far discussed. Performance against key deliverables is mixed as can be seen from Table 10 in Annex 6 (which indicates equal numbers of plus and minus VfM ratings). Strong performance is indicated by the innovative practices undertaken that have significant long-term potential for smallholder farmers. Further, *icipe* had met its key deliverable of two rigorous ex-post impact assessments (see Section 4.4 for further discussion of this). However, after initial strong adoption of, for example, “push-pull” technology, scale-up has been slow. This raises questions about *icipe*'s ability to consistently and effectively translate research into large-scale adoption. *icipe*'s rapid growth in funding is not fully mirrored by a parallel growth in research diffusion, though it is acknowledged that there is an inevitable gap in time between these (as noted in Annex 6). It is not clear whether *icipe* has been able to take full advantage of its rapid growth in funding in ways that benefit the end users. The question is not whether *icipe*'s work is valuable, it is whether *icipe* can yet show its value in end-user uptake and impact.

(d) ICIMOD

Key deliverables agreed with DFID were as follows:

- i. Mountain agriculture and climate change
 - *New knowledge products developed on the cryosphere, especially on glaciers and snow cover melting and permafrost status.*
 - *Two glacier mass balancing studies ongoing and preliminary information on glacier melt acquired.*
 - *One publication in a peer reviewed journal on the cryosphere.*

- *Analysis under way on linkages between changing water availability and agriculture in at least two pilot areas.*
- ii. A step change in ICIMOD's systems for generating regular, ex-post impact assessment.
 - *Revised M&E system, which incorporates impact studies, staff training for impact assessments and launch of three specific studies. At least two independent external studies completed.*
- iii. Strengthening the quality and quantity of scientific outputs
 - *More than double the amount of peer-reviewed publications (journal articles and book chapters) from 17 (now) to 40. Train staff; mandate publication.*

These deliverables represent a mix of scientific advances and measurement and documentation of these e.g. through scientific publications, impact assessments and M&E systems (see Table 11, Annex 6 for more detail). Of four VfM comments, two are positive and two negative.

With regard to the first key deliverable, most of the targets were met or exceeded in terms of production of peer reviewed journals, studies, and impact assessments. Again, in relation to the second deliverable, ICIMOD is on track to achieve good VfM, it has adopted impact pathways as an integral part of its M&E system, improvements in M&E systems are beginning to be reflected in reporting and quality of outputs, and staff training on impact assessments was underway at the time of the evaluation. In relation to the third deliverable, ICIMOD exceeded its targets with regard to peer-reviewed publications.

In relation to key deliverable 2, there has not been as much advancement in production of robust impact assessments and end-user behaviour metrics as anticipated. However, overall, there is improvement in M&E systems and this will be aided by increased dialogue with DFID about specific requirements to be embedded in a rigorous M&E system.

(e) GFAR

Key deliverables agreed with DFID were:

- i. Establishment of robust systems for monitoring, impact assessment and evaluation of GFAR's work.
- ii. Improving investments: Mechanisms established for bringing together more effective monitoring of knowledge in investments and capacities of AR4D systems.
- iii. Scaling-up of initiatives to develop innovation systems research and practice based on robust gender-sensitive analysis and tools.

The evaluation did not carry out a VfM assessment of performance against deliverables for GFAR as this had already been assessed during the course of DFID's funding of GFAR through the PMFM and had led to the discontinuation of funding for GFAR. Annex 5 of this report does provide some findings regarding actions by GFAR towards impact and sustainability. Whilst the Annex does note some positive actions such as GFAR developing a Theory of Change and M&E framework for AR4D systems with the assistance of Firetail Ltd, on the whole the Annex findings correspond with DFID's assessment of GFAR, with GFAR only employing an M&E specialist and developing an M&E system in 2014.

2. Research publications, including the number in peer-reviewed journals (ToC: Centres producing and disseminating high quality research outputs)

The annual milestone for this indicator, taken from the logframe, was “Centres track publications including peer-reviewed journals and assess whether internal incentives with regard to publications are appropriate”. The target (2013) was: “Ratio of peer-reviewed publications to total publications is stable or increases (*setting an absolute target would not be meaningful, as number of articles will depend on the stage of the research cycle.*)” The baseline numbers of peer-reviewed publications in the logframe are Centre wide, rather than specific to the key deliverables under the PMFM.

In terms of tracking publications including peer-reviewed journals, the four research Centres (which this section focuses on) do this routinely, listing publications in their annual reports and providing a breakdown by type, e.g. journal articles (often distinguishing between refereed/peer reviewed and not), abstracts, books, book chapters, extension materials, posters, presentations, conference proceedings, working papers, etc.

Table 5 indicates the baseline numbers of publications for each of the four research centres, and the numbers of publications for the subsequent three years, with figures in brackets being those articles published in journals with an impact factor greater than two. This shows that most of the IARCs have been able to increase the number of publications in peer-reviewed journals (see also Annex 5), with AVRDC showing the greatest increase in number of publications as compared to the baseline figure.

Table 5: Peer-reviewed journal publications* by each of the research IARCs

	Baseline (2010)	2011	2012	2013
AVRDC	40	49 (9)	52 (8)	81 (12)
CABI	122 (26)	80 (26)	93 (37)	102 (18)
ICIMOD	–**	17	32 (3)	38 (12)
<i>icipe</i>	70–100	99 (32)	96 (48)	88 (40)

Source: IARC performance reports, DFID logframe and interviews with Centres.

*Figures in brackets indicate those articles with impact factor >2

**ICIMOD funding started in 2012 hence the 17 publications recorded in 2011 should be seen as the baseline.

There were a number of factors that influenced the changes in numbers of publications over the evaluation period:

- Nearly all the Centres recruited new scientists during that time period, some of whom already had excellent publishing skills and records.
- AVRDC, CABI and *icipe* each did a survey of their scientists to find out what constraints they face with regard to publishing and this informed various actions.
- All four Centres provided time and resources to scientists to write papers. In the case of *icipe*, those who had only published two papers a year were given extra support. Centres provided training in writing (e.g. ICIMOD) and AVRDC continued with its Writing Week, which started in 2012 and allows the scientists and other staff to focus solely on data analysis and writing manuscripts. Several Centres set up arrangements to either informally encourage people to publish or to formally mentor them (e.g. AVRDC and *icipe*) and ICIMOD and AVRDC mentioned the quality assurance measures they have in place.

- Number and quality of papers was considered during performance appraisals of staff, for example *icipe*, thus acting as an incentive.
- Centre-wide recognition of prolific authors, and high-level endorsement of the need to publish by Centre Director Generals, and formal recognition of individual scientists' achievements have also been factors that have contributed to increased numbers of publications.
- It should also be noted that many research projects are multi-year, hence publication figures are expected to go up and down, depending on when projects come to completion and how many do so in each year.

Table 5 above also indicates that in all but CABI, there has been an overall upward trend in numbers of papers published in journals with an impact factor greater than two. Interviews with Centres identified two key factors influencing this trend, in addition to those listed above:

- Some Centres, like *icipe* and ICIMOD, conduct the sort of research that is normally published in high impact journals. On the other hand, work being published by CABI and AVRDC focuses more on putting research into practice; and such applied work tends to be less favoured by the higher impact journals that are more concerned with "pure" science rather than applied science. Hence AVRDC noted that *"However most agriculture and horticulture journals have low impact factors, and one of AVRDC's main publication outlets is through the very relevant International Society for Horticultural Sciences whose widely read Acta Horticulturae has no impact factor weighting"*.
- Several Centres (and in particular CABI and AVRDC) appreciated the need to publish in open access journals, so that research and development outputs are widely accessible, in a timely manner. Indeed, one of the explanations for the drop in 2013 of the number of CABI's publications in higher impact journals was that DFID had produced an open access paper policy and, in response to this, CABI chose to publish more open access papers (which are not always rated in the same way), rather than focus only on high impact journals in order to meet the PMFM targets. There are, however a number of open access journals which are rated by impact.¹⁷ Therefore, and particularly for Centres like AVRDC and *icipe*, there may be less of a conflict between publishing in open access papers and at the same time managing to publish in higher impact journals than for those Centres, such as CABI and AVRDC, who are engaged in more applied or less original work.

While all Centres seek to publish their research findings, the PMFM did influence this in the following specific ways:

- Several Centres used the core funding from the PMFM to cover the costs of training scientists in writing and in giving them time to publish. In the case of CABI, scientists had a specific budget code they could charge when they were writing, and that was against PMFM core funding.
- As specifically mentioned by three of the Centres, the fact that the PMFM had indicators related to numbers and quality of research publications strengthened and/or endorsed the emphasis that senior management placed on their scientists' publishing findings.

¹⁷ See <http://library.tue.nl/catalog/OAImpact.csp> for a list of open access journals and their impact factors.

- Because of the perceived emphasis of DFID on gender and impact assessment, Centres like *icipe* have paid more attention to these areas by instituting more gender-focussed and impact studies which has contributed to the overall increase in the number of publications.
- Lastly, the milestone for the indicator on research publications was “to assess whether internal incentives with regard to publications are appropriate” with “internal” being understood as Centre incentives. Three of the Centres noted that their performance appraisal systems include a measure of quality and quantity of an individual’s publications. More generally, the Centres noted that incentives drive behaviour, and having DFID backing this (as per the point above) reinforced this, with *icipe* noting that “*Incentives within the Centre drive behaviours, we now have an increased focus on publications. And we can say that one of our core donors (DFID) also see this as a key milestone or performance indicator*”.

3. High quality case studies made available for publication demonstrating impacts at scale, and responding to issues of climate adaptation, empowerment of women, food and nutrition security (ToC: Methods and mechanisms to scale up new technologies, products and knowledge identified and tested)

At the start of PMFM funding, Centres were asked to carry out a self-assessment against specified key criteria and to submit 2–3 strong, well-evidenced case studies of impact of the Centre’s work, showing impact at scale. Then, in the letters sent to each of AVRDC, CABI, *icipe* and GFAR in January 2012 by DFID¹⁸ regarding their multi-year funding, DFID included a special note on case studies:

We have developed a series of case studies, using information provided by our research partners, showing how research can benefit poor farmers. These studies have been extremely useful in raising the profile of agricultural research in DFID and have enabled us to argue successfully for increased funding. We want to maintain this effort. Therefore, we have included an indicator relating to case studies in the logframe. Such case studies should reflect each Centre’s best examples of research, which has had large-scale impact or has the potential for large-scale impact, and reference the background publications from which this work is drawn.

Case studies neither had to relate to key deliverable topics agreed with DFID, nor be funded specifically from PMFM funding. They could also cover work supported by other donors.

The PMFM logframe milestone for this indicator for Output 1 was “*At least 1 case study per research centre published on R4D and centre website*”, with a target of “Total of 6 published case studies on R4D¹⁹ and other websites”. Each Centre reported against this indicator in their annual reviews. However, since GFAR do not produce materials that fit the criteria for this indicator, they are not included in the analysis below.

(i) Targets

The four Centres all met the targets in that they submitted case studies to R4D and/or published them on their own websites, also using these materials within annual reports and for other dissemination purposes. Submission of case studies to R4D, however, did not automatically

¹⁸ ICIMOD, which joined later, did not get the initial guidance note that other Centres got on case studies.

¹⁹ R4D is the DFID Research for Development portal: <http://r4d.dfid.gov.uk/>

mean that they were of an acceptable standard for publication on R4D, and some case studies submitted were also put on hold. Often, Centres said they were not well informed as to whether their cases were uploaded, on hold (and why) or how they could be improved whilst, in other cases (e.g. for AVRDC), case studies were subject to considerable scrutiny, resulting in lengthy feedback. In these instances, however, Centres were able to respond to the feedback, and re-submit the relevant case studies.

(ii) Understanding among the Centres of what a case study is

This statement from AVRDC is representative of the understanding across all the Centres of what a case study is: *“A case study is traditionally used by AVRDC as a research report on the progress of a particular person, group, or situation over a period of time. This kind of study can be used to present examples of successful research and development work; demonstrate impact; and inform future research activities”*. However, other Centres also noted that a case study would be more of a human interest story, looking at what worked and what did not. The way outcomes and impact would be measured/evidenced would tend to be based on qualitative indicators, or a blend of quantitative and qualitative measures. Case studies are often used as promotional pieces and may, over time and in conjunction with other pieces of work, inform scientific publications or impact assessments.

(iii) Understanding among the Centres of what DFID required as a case study

Whilst ICIMOD noted that they had no guidance and that it was not clear at the start, they and the other Centres all observed that DFID were particularly interested in evidence of impact, with *icipe* noting that *“DFID has very definite (ideas about) what they wanted to see from a case study and parameters that they want to measure. We may look at different angles, properties but DFID is more specifically concerned with the impact and how to measure the impact. It is a more defined template than we would use”*. Whilst the Centres may have been measuring impact in different ways and using mixed methods, it was understood that DFID required large-scale impact (or potential for this) evidenced through use of more robust impact assessment measures, and that case studies should reflect this.

(iv) Challenges faced by the Centres with regard to meeting DFID’s requirements and how these were addressed

The Centres’ main challenge related to how to measure impact. Much of their funding is linked to specific projects, with no funds available to revisit projects and assess impact (rather than outcomes). Further, the types of research that either demonstrated, or had potential to demonstrate, large-scale impact, had not been designed to include impact measurement. For example, baselines were not in place and evaluation measures such as control groups had not been included. Where Centres did attempt to use PMFM funds to measure impact retrospectively, for these reasons, results were not satisfactory or credible.

To address this issue, Centres are now designing future research with impact measurement in mind. Towards the end of the funding period for PMFM, DFID shared with the Centres a “Story of Change” case study template. All the Centres noted that this template has been very helpful, both for understanding how to prepare case studies and how to incorporate impact measurement into research design.

(v) Extent to which the DFID PMFM requirements influenced the Centres' consideration of case study development looking forward.

The three Centres that were asked this question (CABI, *icipe* and ICIMOD) all stated that, whilst they had not adopted such a rigorous approach to providing evidence through case studies in the past, they could recognise the value of doing so, particularly for “impact” case studies and were looking at ways to mainstream a more evidenced approach. ICIMOD, for example, are discussing internally whether DFID’s case study template can be applied for other case studies. *icipe* noted that another donor is also asking for a more rigorous approach, and that they wish to apply the same parameters to other donor case study work as they have done under PMFM. CABI also observed that “*If we look back to before PMFM, we were very much focused on structuring projects to get the maximum number of beneficiaries, a focus on development. We didn’t stand back enough to recognise that we were conducting (social science) development experiments and we didn’t do enough to think about the ToC, how to do a case and control set up so that you can see if your interventions have brought about the change*”.

4. Research outputs with specific focus on women’s empowerment and gender analysis generated and widely disseminated

There were two milestones for this indicator: *at least two research outputs per centre that demonstrate gender dimensions*; and *at least one peer-reviewed publication per centre published*. Centres reported against these milestones in the annual review reports and, in some cases, DFID provided feedback and recommendations for further action.

Production of two research outputs per centre demonstrating gender dimensions improved as time went by with guidance provided by DFID. By 2014, most Centres had met their targets aside from *icipe*. ICIMOD, on the other hand, greatly exceeded the targets and its capacity building work in this area is also further elaborated in Section 4.3.

With regard to the second milestone, *one peer-reviewed publication per Centre published*, again targets were not met every year. In some cases, the papers were not written, whilst, in other cases delays in the peer-review process meant that publication occurred in later years. ICIMOD and AVRDC, both of which had guidance from DFID, made good advances. In 2014, AVRDC were able to report that 50% of their publications were by women and that the Centre had published four papers with a focus on women and gender. Meanwhile, in 2014, ICIMOD produced a special issue on gender arising from the Bhutan +10 conference and appearing in a peer-reviewed journal, in addition to a number of book chapters and other published outputs.

Whilst GFAR is not a research centre, as discussed in Section 4.3 point 1, one of their key deliverables was “*Scaling up of initiatives to develop innovation systems research and practice based on robust gender analysis and tools*”. Whilst the output indicators do not fit so well here, in practice GFAR had strong outputs regarding gender. For example, in 2012–2013 they held a high-level policy forum on agricultural innovation for rural women; supported a study on women’s knowledge networks; and assisted a national agricultural research council (Nepal) in re-orienting towards women. They also supported the Global Conference on Women in Agriculture, which led directly to the establishment of the “Gender institutions”.

DFID’s recommendations to the Centres regarding this output indicator tended to focus on the need to integrate gender analysis across the research portfolio and embed gender analysis in the design of field level work. DFID also encouraged Centres to produce more publications with a more explicit focus on gender. Where DFID noticed good improvement annually they explained

where in their review letters, sometimes making further recommendations. In one case (*icipe*), DFID asked for the same action points a second year running as they considered the Centre had not addressed them.

As also noted in Section 4.3, Output 2, point 4 regarding HR policy and operational plans for ensuring gender balance in organisational structures and research processes implemented, the PMFM certainly influenced how the Centres addressed gender, not only internally but also in their field work and publications. For example, AVRDC noted that: *“Previously AVRDC had considered itself doing fairly well on gender issues, since the target farmers in smallholder farming communities and those involved with home gardens, are predominantly women. The earlier focus was to continue to work with more women and not dwell too much on research issues on gender equality and empowerment of women. The DFID funding has enabled AVRDC to focus on gender issues, generate research outputs and publish outcomes of research/interventions”*.

4.3.2. Output 2: Organisational behaviours which underpin effectiveness and value for money for DFID are strengthened

Output 2 includes three indicators in DFID’s logframe, and the findings relating to each are discussed in turn, followed by the additional topic identified in the ToC (see Section 4.1), namely *medium-term planning tools produced and approved*. The section concludes with two additional topics relating to transaction costs of the PMFM compared to prior funding arrangements, and a discussion of the bonus component of the PMFM.

1. Robust financial systems and sources measured (ToC: Efficient and accountable financial monitoring system put into use in the Centres)

There are three units of analysis for this section: the performance of the IARCs themselves, the contribution of DFID assistance to them, and the performance element of the PMFM. Table 6 shows each Centre’s total revenue, and the extent of PMFM funding to AVRDC, CABI, *icipe* and ICIMOD, in years 2011–12, 2012–13 and 2013–14.²⁰ As indicated in Chapter 2, the PMFM involved provision of multi-year core funding, and a potential additional 25% funding annually in the form of a performance component. The table below distinguishes between the core and bonus funding amounts allocated for each of the Centres over the evaluation period and in which instances the bonus was awarded.

It is important to note that this comparison is approximate as, whilst the total Centre revenue figures are accrual based, the figures for PMFM money are cash (not accrual) based. In addition, there is a dissonance between the calendar year, which the Centres use, and DFID’s fiscal year. To address this, DFID were first asked to provide a breakdown of their payments to each Centre across each calendar year and then Centres were asked to confirm when payments were made and received by fiscal year. However, because of the accrual system of accounting normally used by Centres, there were times when funds received in one year were (appropriately and legitimately) carried over to the following (Centre) financial year.

²⁰ GFAR received £300,000 in each of 2011–12, 2012–13 and 2013–214 but no bonuses. (MOU and funding agreement between DFID and GFAR, undated Interviews conducted with GFAR ^d Per Progress Report letter 19/02/2014 DFID ended GFAR funding April 2014; DFID)

Despite this being an approximate comparison, it can be seen that:

- Total Centre revenue increased across the evaluation period for all four Centres, with CABI and particularly *icipe* seeing the greatest increases.
- The absorptive capacity of each centre to utilise new funding effectively may vary greatly. In Table 6 it can be seen that, in 2013, the amount of funding from DFID to CABI, and, more significantly, to *icipe*, is quite a high proportion of these Centres' overall funding. It may be prudent for DFID to be cognisant to total Centre revenue when making core and bonus funding decisions, to ensure that funds granted can be absorbed and effectively used as an organisation grows. Annex 6 discusses this further in relation to *icipe*.
- Increases in PMFM core funding to CABI and *icipe* relate to the 2012 extension of the programme, which approved the scaling-up of the PMFM budget from £30 million to £40 million, with the additional £10 million funding being allocated to CABI and *icipe*.
- Whilst CABI and *icipe* received bonuses (CABI for all three years and *icipe* for two), AVRDC and ICIMOD did not receive bonuses.
- The largest bonus received in any one year was for CABI in 2013, receiving almost £1 million. That same year *icipe* also received a large amount: £814,000. The smallest bonus awarded was for *icipe* in 2012: £262,400. The implications of these figures are discussed at the end of this section (point 7 of Output 2, under 4.3).
- In no instance does the total of DFID funding in any one year get close to exceeding the 40% threshold²¹, which may indicate a Centre's overdependence on one source of funding.

Due to limitations in accessing fully detailed financial documentation, it was not possible to make any firm conclusions on the PMFM's contribution to improved financial management systems. However, available evidence did not suggest any significant shortcomings in this area.

In CABI, the parallel rates of income and staff cost growth do indicate a degree of efficient use of funding. Flat staff costs as a percentage of budget during a period of revenue growth, when coupled with new extra-budgetary expenditures to fund a projected deficit in CABI's defined benefit plan, do indicate a degree of efficient use of new funds and VfM in CABI operations.

For *icipe*, whilst in 2013 auditors highlighted the need to update financial controls and internal management processes to align with growth (see Auditors report 2013), they maintain that their strategy of growing annually by 20–25% is the kind of growth that will have a solid foundation and be sustainable.

AVRDC shows appropriate financial management, clear high-level audit and management procedure. Improvement in M&E systems begins to be reflected in ICIMOD reporting including on financial management. All of the Centres' performance reports provided evidence of managing indirect/direct cost ratios within the targets set by each Centre with some showing greater efficiency over time (for example, see Table 3 in Annex 6 with regard to AVRDC).

²¹ This is an indicator of financial flexibility and health identified in the Scott report (full citation in Footnote 3), which recommended to DFID that "...a performance-based reporting system, should monitor the "institutional health" of the organisation – governance and management, financial flexibility and accountability – in addition to research outputs and outcomes."

Table 6: Total Centre revenue (accrual based) and PMFM funding to Centres (cash based) per annum

2011 (£)				2012 (£)			2013 (£)			2014 (£)		
	Total Centre Revenue	PMFM Core	Bonus	Total Centre Revenue	PMFM Core	Bonus	Total Centre Revenue	PMFM Core	Bonus	Total Centre Revenue	PMFM Core	Bonus
AVRDC	8,645,000	0*	-	8,278,125	1,780,000	-	10,995,625	1,520,000	-	12,090,000	1,520,000	-
CABI	25,024,000	900,000	-	25,182,000	2,640,000	427,600	28,742,000	5,312,000	994,000	32,235,000	3,968,000	994,000
icipe	12,350,425	353,033	-	12,949,278	1,920,000	262,400	16,853,818	4,588,967	814,000	20,277,229	3,248,000	-
ICIMOD	12,265,881	0**	-	14,243,623	1,098,000	-	13,296,323	549,000	-	16,758,902	1,662,270	-

*£340,000 disbursed to AVRDC by DFID for 2011 was received in 2012 and included in the total PMFM core amount for that year

**ICIMOD joined the PMFM programme a year later with the first PMFM funding being received in 2012

Sources: DFID correspondence August, 2015; AVRDC, CABI, *icipe*, ICIMOD correspondence August, 2015, Centre Annual Reports

2. A clear plan and strategy (Environmental Management System) in place

The units of analysis for this section are the performance of the IARCs, and the effects of the PMFM. All IARCs were expected to produce a clear Environmental Management System (EMS) incorporating the following elements:

- specific targets for reducing the carbon footprint and wider environmental impact;
- metrics on energy use, waste, travel and transport;
- processes for regular reporting to the Senior Management team.

CABI, *icipe* and AVRDC progressed in developing an EMS within their organisations.

GFAR was unable to produce an independent environmental strategy, being under FAO's administrative arrangements, but has worked towards reducing unnecessary travel through increased use of videoconferencing.

ICIMOD has established an EMS, but the systematic use of environmental indicators for influencing current management decisions seems to be still quite limited.

AVRDC is the only centre demonstrating clear steps to developing an action plan for institutional environmental sustainability, having monitored its carbon footprint in 2011, 2012 and 2013. While this represents only one aspect of environmental impact, it is nevertheless a significant one, and demonstrates AVRDC's attention to this important environmental management issue.

In general, there is limited evidence that the IARCs have fully adopted and operationalised an effective EMS. Despite this, the environment-friendly measures promoted by all Centres (but not by GFAR) during the period under evaluation (e.g. cutting down on official travel, "greening" of centre premises and exploring the costs of switching to renewable energy) are mainly attributable to the implementation of the DFID funding mechanism, as evidenced during the interviews and focus group discussions with IARC staff.

3. HR policy and operational plans for ensuring gender balance in organisational structures and research processes implemented

The units of analysis for this section are the performance of the IARCs, and the effects of the PMFM. All the IARCs made some progress in developing gender equity policies and in mainstreaming gender outcomes at the organisational, research and project levels. Strengthening social science within the research centres, which includes hiring institutional and gender specialists, is one of the most important ways in which the IARCs are moving towards embedding gender in their processes and results.

The IARCs also recognise that gender mainstreaming goes beyond the formulation of gender strategies and internal procedures, as can be seen in the following statement: *"At the beginning we thought gender was more an internal issue, not externally focused ... So we started collecting data on gender balance within the organisation, etc., but the real issue came later when they (DFID) started asking where the gender outputs are within our projects. Then we started looking at external issues."*

Over the evaluation period, progress was made by all of the Centres in terms of gender balance, development of Centre gender policy and/or strategy, and provision of gender training. The

evaluation's findings for each Centre are presented below, although it should be noted that this is not intended to suggest comparability. Each Centre has a very different scope, subject area and location, and all are at very different stages in terms of gender and staff development issues.

Gender balance: The gender ratios of female to male staff in AVRDC were already good and were maintained, with around a 50:50 ratio for national staff and a 30 (female):70 (male) ratio for international staff. 45% of CABI's staff are female. ICIMOD's ratios have been a little variable but they have been emphasising recruitment of women to address the balance. *icipe*'s ratios were an improvement on the previous year at 35% (female) and 65% (male) in 2014, yet still imbalanced. *icipe* has succeeded in recruiting more female post-doctoral students and interns, and has also appointed several women to senior management positions. GFAR reported a staffing of 6 women to 5 men in 2013.

Gender strategy: All Centres aside from *icipe* have, with the encouragement of the PMFM, developed gender strategies and CABI is working on a gender strategy plan. *icipe* adopted its Gender Policy in 2012 and, recognising the need to address the imbalance of male and female employees, the female staff had a general assembly meeting in 2013, from which various action points were developed. ICIMOD produced a Gender Equity Policy aligned with the long-term Strategic Framework. The gender policy helps further institutionalise the issue of gender across the Centre and its programmes.

Gender training: Each of CABI, AVRDC and ICIMOD reported on the provision of gender-related training. ICIMOD runs a Women's leadership course and carries out other gender sensitisation and training events. It is working with national partners to bolster the skills and knowledge required for an effective integration of gender-specific considerations in disaster risk reduction activities. AVRDC had developed guidance tools and was also providing capacity building, and CABI set up a task force and was able to conduct gender training. Meanwhile *icipe* produced a guidance note in 2012 entitled "Integrating gender perspectives in the research and development work of *icipe*" providing guidance on how to mainstream gender equality issues into *icipe* research practice. It is expected that capacity building in gender will have better equipped the Centres to meet their targets with regard to generating and disseminating research outputs with a specific focus on women's empowerment (see output 1, point 4, in this section).

DFID feedback: All the Centres reported against this indicator in their annual review reports. With regard to this particular indicator (rather than the gender-related one under Output 1) DFID provided specific feedback for each of AVRDC and ICIMOD in 2012 and 2013. In 2013, DFID advised AVRDC to identify the training needs for staff on gender research and gender champions to push gender integration across the research programme and their feedback in 2014 reflected their appreciation of AVRDC's efforts in this area. For ICIMOD, in 2013 DFID encouraged them to review progress in rolling out the gender strategy and action plan in one year's time. In 2014, it commended ICIMOD on very good progress on gender. (Note, other points regarding DFID's feedback to the Centres on gender are covered under Output 1, point 4.)

Difference made by PMFM: One concern that the evaluation had was about ensuring that the PMFM's contributions to organisational changes around gender were differentiated from those made as a consequence of wider donor interest in gender. Generally, interview findings indicated that the PMFM had made a difference to the efforts of Centres in addressing gender: "*The core funding helped us strengthen gender institutionally. If that is not done then how are you able to do it in your projects and programmes?*" CABI also noted that "*All the donors are looking for us to increasingly address gender. By (PMFM) putting some incentives in front of us to do something*

about it we moved faster and further than we would have done in the absence of PMFM". Some specific examples of how PMFM has made a difference are as follows:

- AVRDC developed a gender strategy to cover internal and external aspects of gender; trained staff in gender analysis; and encouraged staff to add gender-related goals in performance appraisals.
- PMFM enabled *icipe* to take a Centre-wide approach to gender, and develop a level of expertise in gender studies, rather than an ad hoc project-based approach. *icipe* explained that this has helped to create/change culture and institutional thinking about gender.
- ICIMOD used the PMFM funding to carry out the training and gender sensitisation referred to above.
- Without the PMFM funding CABI would not have been able to set up its gender task force and carry out gender training at various locations.

4. Medium-term planning tools produced and approved

This section first provides some information about the strategic planning being undertaken by each Centre at the macro-level. It then discusses the M&E systems in each Centre and the extent to which these have been influenced by the PMFM. The PMFM's influence on Centre skills and application of impact assessment, however, are discussed separately in Section 4.4 point 2.

CABI has developed a strategic view and a set of overall goals for the year 2020 concerning i) food security, ii) increased farmer incomes, iii) sustainable agriculture, and iv) environmental protection.

icipe bases its long-term view on i) human health, ii) plant health and sustainable plant diseases control, and iii) capacity building. This view is accompanied by a well-structured partnership strategy for scale-up and dissemination. Though not attributable to DFID alone, *icipe* has also introduced a results-based management (RBM) system that captures the Centre's project goals and key performance indicators.

AVRDC developed both a long-term Strategic Plan (2011–2025) and a Mid-term Plan (2014–2016) both encompassing the relevant core research lines with a value chain approach, such as i) germplasm conservation (gene bank), ii) plant breeding, iii) safe and sustainable vegetable production systems, and iv) post-harvest management, market opportunities, and nutritional security.

ICIMOD elaborated a long-term "Strategy and Results Framework" in 2012 (albeit without a well-defined time horizon). The strategy is focused on the following core areas: i) glacier-related research activities (i.e. water resource management, flood prevention, hydropower potential development), ii) black carbon mitigation, iii) poverty, climate change and sustainable agriculture, and iv) gender equality.

M&E systems are ideally embedded within planning systems so that planning, monitoring and evaluation are considered as a whole. Whilst the development of the above strategic and mid-term plans and frameworks were integral to the activities of the Centres as a whole (to which the DFID core funding may have contributed a part), the objective of developing or strengthening M&E systems in three of the Centres, in particular, was very much related to the PMFM funding. These cases were CABI, ICIMOD and GFAR, with each of these having specific key deliverables around this area, as indicated below:

- **CABI:** Key deliverable 3: Step change in CABI M&E systems;
- **ICIMOD:** Key deliverable 2: A step change in ICIMOD's systems for generating regular, ex-post impact assessment including a revised M&E system;
- **GFAR:** Key deliverable 1: Establishment of robust systems for monitoring, impact assessment and evaluation of GFAR's work.

Of the three Centres, CABI made most progress in this area, though it was held back somewhat by staffing difficulties. CABI confirmed in interviews that they knew that more robust M&E systems were necessary and that it was the core funding through the PMFM that focused them on improving the systems. This core funding helped CABI focus on long-standing institutional issues that might otherwise be missed under a regime of repetitive cycles of project-based funding. Further, there is evidence that institutional gains in M&E are flowing downstream to country partners, for example in India and Kenya in relation to mobile platforms. Downstream spread of more rigorous M&E systems should increase performance and VfM.

M&E systems development was weaker in each of ICIMOD and GFAR, and was one of the reasons why ICIMOD did not get a bonus in 2013–2014 and why the funding for GFAR ceased. Nevertheless, in each case some steps were taken regarding M&E, with some evidence of improved M&E in ICIMOD, and by GFAR in developing a Theory of Change and, in 2014, developing an M&E system and looking to employ an M&E specialist.

As can be seen in Annex 4, the Centres had a number of comments about M&E indicating that DFID funding enabled them to focus more on M&E, with the following being of particular relevance here: *“Our social science is an area that we started to grow and definitely I think that DFID can take some credit for shifting from early stage project thinking and the technology driven units, it's still a work in progress ... but we have embedded M&E into our projects ... We are now working on different key performance indicators for issues beyond what we would have done traditionally and becoming part of the way it works for every project ... everything is embedded into that system formally”*.

Moreover, the availability of unrestricted core funds – without the delays and substantial transaction costs that would be required if restricted funds were being used – has enabled a degree of institutional agility that was unknown before core funding (i.e. the ability to take an idea and conduct initial research for attracting donors and establishing new partnerships: CABI, AVRDC, *icipe*).

Analysis of the two Centres not funded under the PMFM scheme (see comparative analysis, Section 4.5) confirms that the PMFM contribution to enable a focus on large-scale programmes has been crucial. Compared with the more conventional funding mechanisms (particularly project-based), the PMFM allows the IARCs a more efficient and flexible use of the available financial resources compared with what other more conventional funding mechanisms allow (see section 4.5., comparative analysis).

More detail about the IARCs' response to the PMFM implementation in terms of efficiency and VfM in the use of DFID funds is presented in Annex 6.

5. PMFM transaction costs as compared to DFID's conventional funding system for these Centres

The units of analysis for this section were the contribution of DFID's assistance to the Centres and the effects of the PMFM. It was evident from numerous interviews and discussions with the Centres that transaction costs related to responding to the reporting requirements of DFID through the PMFM did not substantially increase after the first-year reporting learning curve. IARC staff interviewed recognised DFID's efforts to simplify the reporting system, including the format.

From DFID's perspective, gained through interviews with DFID staff, the PMFM increased DFID transaction costs in relation to the previous system of funding which involved DFID providing ad hoc core funds to the Centres each year through a system of *"make a grant, read reports and financial statements, and proceed if the reports seemed to be on target"*. The PMFM is, in contrast, a more demanding process which includes annual review of the IARCs' management performance. This in turn necessitates the analysis of a large amount of documentation from the IARCs and more frequent communication between DFID and the IARCs.

According to DFID estimations²², the time taken for giving support to the IARCs under the PMFM scheme amounts to 132 hours per year against around 5 hours per year under the previous funding system.²³ The whole PMFM process is much more hands-on than the earlier system, with mutual determination of goals, objectives and deliverables, as well as their annual adjustment; review of reports on key deliverables; assessment of progress and VfM; and establishing a rubric for each Centre's bonus assessment. Nevertheless, and critically, the transaction costs under PMFM are relatively low compared with the grant sizes, although even higher transaction costs under PMFM which, in turn, ensure that grants are better designed, managed and monitored than under previous mechanisms, would still represent good VfM.

A wider benefit of the PMFM has been mentioned by both DFID and Centre respondents. Previously, DFID *"did not have a great handle on what was being done"* in a project. Through PMFM, however, DFID has access to a far greater level of detail. And, while there were lower transaction costs resulting from a more distant relationship with DFID, now projects can benefit from mutuality in grant making and performance review.

The PMFM has, therefore, opened a channel for stronger communication and strategy development between implementing partners and DFID, with potential for greater knowledge sharing on each side, and mutual programme enhancement. The current level of interaction between DFID and the Centres is largely appreciated and welcomed by the Centres and is regarded as an incentive and a learning opportunity.

One key change in transaction costs for the Centres is that core funding allowed them to concentrate their efforts and staff resources on fewer, larger grants and commissioned studies. The IARCs deem this to have been extremely beneficial and indeed responsible for re-orienting their fundraising strategy, as was noted in the discussion above (point 5) and is clear in the following quotes from the Centres:

²² Email communication with Alasdair Swift, 02 April 2015

²³ When monetised at a value of £100 per hour including benefits, transaction costs under PMFM are £13,233. With an average annual grant of £1,360,000, the actual transaction cost per grant is less than one tenth of one per cent of the total average grant.

“In general transaction costs reduced: Knowing that we have the core funding from DFID reduced our dependency on small projects. We tend to go for bigger projects, commissioned projects now. Because of the core funding we have been able to drop some small projects, whose reporting requirement proportionally is very big.”

“DFID funding made us go for less project funding and more on programme type funding which lowers transaction costs significantly, many of the programme initiatives are multi-country and multi-year and have leverage for the institution a great deal as it increases our profile too.”

6. Findings regarding the performance component (bonus)

This section provides key findings regarding the performance component or ‘bonus’ which is described in Chapter 2, and a more extensive examination provided in Annex 6, including potential options for improving its effectiveness. Point 1 in this section also provides details of those Centres in receipt of bonuses during the evaluation period. The unit of analysis for this section was the performance element of PMFM.

The application of the bonus component has been limited so far with just two Centres being awarded this – CABI for all three years of the evaluation period and *icipe* for the first two only. Use of the bonus by the two Centres had:

- Improved their overall management performance as a consequence of an increased capacity to invest in more human resources, production of scientific publications, and communication and dissemination.
- Elaborated new research programmes and/or start-up of pilot experimental studies and systems. These new initiatives were leveraged for attracting donors and improving their fundraising prospects.
- Maintained in-house development funds and used these for a wide number of initiatives, including co-funding projects where required.
- Allowed more attention to key institutional issues.
- Created substantial financial reserves (in the case of *icipe*), which were then used for infrastructure and impact assessments.

What is not clear, however, is whether the bonus incentivised a focus on research products. One centre (AVRDC), which did not receive any bonus payment, noted that *“having guaranteed core funding and scientific targets known and agreed well into the future, around which research can be organised with security, is the key to the success of the PMFM”*, noting that this has far higher relative importance than the bonus component. And another (bonus receiving Centre) has stressed the point that *“the key benefit of the PMFM is the visibility of future funding-flows for a significant period into the future, linked to clearly agreed deliverables and targets which allow us to plan our activities more efficiently, recruit new or additional capabilities into the organisation and pursue innovation opportunities.”* This point clearly relates to the importance of the core funding over and above bonus payments.

The findings of the evaluation, and particularly the results of the interviews with the Centres, indicate that there are certain ways in which the component could be made more effective.

A common perception within the IARCs is that there are multiple planned deliverables for each Centre, but that a smaller universe of key deliverables is used to determine performance

bonuses. From the recipient's perspective, if the bonus depends upon achievement of a select few goals among a larger number of goals that are mutually agreed upon, then those few goals should be highlighted to the recipient. Currently, the recipient organisations are simply not clear about the criteria for awarding a bonus, and if and why some agreed-upon goals are weighted differently than others. Greater clarity on the priorities for bonus payment is desired by the IARCs, and a greater quality and depth of engagement by DFID. This would allow DFID and IARCs to discuss cases where value judgements about the quality of research outputs or impact studies, for example, need to be made. It would also enhance DFID's understanding of the overall culture and operations of the Centres.

In cases where there was also greater engagement on the side of the IARCs themselves, the evaluation found more positive results. It learned that CABI had *"made efforts to understand exactly what DFID were looking for and dig down below their initial expressions of targets and actions to get the real drivers for this, i.e. what their superiors and ministers were asking of them, so that they were better able to deliver"*. Ideally, all Centres should have equal clarity on DFID's expectations under the PMFM. However, it should also be noted that it is inevitably more difficult for organisations that are not based in the UK to understand the real drivers and priorities within DFID, since they are not as familiar with the national context within which DFID operates. The same is likely to be true of AVRDC or ICIMOD in relation to the Asian Development Bank, for example. Again, if there had been greater discussion of the PMFM mechanism and more effort to develop a mutual understanding of the underlying ToC at the beginning, this could have made a difference.

As illustrated by *icipe* not being awarded a bonus in 2014 (having been awarded one the previous year), and by DFID's need to repeat its recommendations of 2013 again in 2014 (as indicated in its performance review assessment letters to the Centre), there is clear evidence that the potential bonus for past performance does not necessarily incentivise future performance. DFID's response letter to each Centre's annual performance reviews outlines where performance has been good, and where it could be improved. The letter then lists several action points for the Centre to address in the following year. Hence, it would be expected that the Centre would endeavour to address those areas in order to increase their chances of being awarded the performance component in the following year.

As detailed in Annex 6 (in relation to VfM findings for EQ3), the evaluation found that *icipe* did not recognise from DFID's performance review alone that the 2014 performance bonus was in jeopardy. Rather, they regarded that year's bonus to be a tangible reinforcement of support for *icipe*'s operations, and thus, at that time, did not react to DFID's growing sense of urgency to see evidence of change.

The level of communication regarding bonuses was also commented on by one Centre that to date has not received a bonus. AVRDC would have liked to have had more interaction with DFID and more negotiation and conversation about the awarding of the performance bonus, feeling that they had only very gradually learned what DFID were really looking for in relation to the bonus.

A graduated rather than an "all or nothing" bonus system was also suggested by some Centres as a way of recognising partial achievements, particularly when significant efforts are underway to introduce reforms that might take longer to achieve, or be dependent on others. For example, CABI suggesting a range of between 5 and 25%, based on a graduated evaluation of agreed-upon key performance indicators.

On occasion, the evaluation found that, despite evidence of progress across a range of deliverables, this progress was not deemed sufficient to warrant the award of a bonus. For example, in the case of ICIMOD, the evaluation found that it was performing well in many areas including in monitoring and impact assessment.

Whilst DFID made no requests that the bonus should be spent in the following year, one of the two Centres receiving bonuses felt that the funds should be used then so as to better attain targets and thus be more likely to get a bonus the following year, stating *“Our understanding has been that the performance bonus should be applied to the achievement of our targets over the next 12 months and the outcomes reported at the subsequent review meeting”*. Yet the Centres would not have been able to plan in advance for the use of these funds. This issue is taken further in Chapter 5 where in fact a range of recommendations is made regarding the bonus component, with further discussion of these provided in Annex 6.

Conclusion

The evaluation question (EQ) under consideration in this section was *“What is the evaluators’ assessment of the intended and unintended, positive and negative effects of the funding mechanism? How can it be made more effective?”* The first of the two outputs from the logframe for this EQ was “Centres generating high quality research outputs” and this was measured by assessing progress regarding key deliverables, research publications, case studies and women’s empowerment.

The PMFM ensured that each Centre focused on delivering against each of these indicators. For some Centres and, for some indicators, this meant that Centres had to pay more attention to certain areas, or adjust their focus within existing areas. For example, while they may already have been undertaking certain activities, such as writing case studies, developing gender policies or publishing the results of their work, the PMFM certainly influenced the degree and the nature of these activities and the evidence suggest that this has been positive. Gender-focused publications have been appreciated by donors, and the more rigorous approach to case studies has improved their quality. These results have been particularly positive when they have been accompanied by changes in organisational behaviour such as systematic use of a case study template, or stronger reporting on gender and women’s issues (Output 2, see below). This allows such approaches to become more mainstream and, thus, more sustainable in the longer-term.

On the other hand, the emphasis on new approaches was also considered to de-value previous approaches, and the Centres still regard more qualitative case studies to be beneficial; also valuing the publication of research in online, open access or traditional paper-based journals that have low or no ratings, particularly where these have the widest readership and citation numbers.

Turning to Output 2: “Organisational behaviours which underpin effectiveness and VfM for DFID are strengthened” this was assessed by reviewing six areas: financial systems; environmental management systems; HR and operational plans for ensuring gender balance in organisational structures and research processes; medium-term planning tools; Centres’ staff management resources based on improved planning tools; and PMFM transaction costs as compared with the funding system DFID used before the PMFM. Here the PMFM had a number of positive effects, which were more gradual. Centres established gender strategies and policies and took staffing

ratios (female to male) into consideration. Further, they strengthened capacity of staff and in, some cases, partners through gender training and sensitisation.

Because of the need to provide more rigorous evidence for case studies and impact assessments, Centres began to establish or strengthen their M&E units or staffing. For those Centres that had access to expert guidance on impact assessment, measures were taken to strengthen this, not only for the PMFM deliverables, but also for the wider work of the Centres, where possible and affordable. After the initial learning curve, transaction costs were reduced in that the Centres had sufficient core funding, which in turn helped them leverage more funding. Further, they no longer needed to invest a lot of time and resources in securing small amounts of money for discrete projects. Those Centres that received a performance component made good use of the funds to leverage more funds, to carry out innovative work and to carry out ex-post evaluations, even despite the fact that they were unable to plan for the use of these funds as strategically as for the core funding. Enhancing organisational behaviours that underpin effectiveness, for example through stronger M&E systems, better trained staff, stronger financing, more rigorous impact assessment methodologies and plans, all encourage other donors to support the Centres.

EQ3 also asks how the PMFM could be made more effective. From the findings in relation to Outputs 1 and 2 under this question, one way would be through much clearer guidance on, and communications concerning good practice from DFID's point of view, for example in development of case studies, impact assessment and embedding gender analysis across the research portfolio. Already the Centres are sharing experience through the M&E group they belong to within AIRCA and this is something that appears beneficial.

With reference to the ToC and theory-based contribution analysis, and particularly to the ToC put forward in 4.1, findings regarding Outputs 1 and 2 correlate well with the outputs and with intermediate outputs in the ToC diagram and are in line with the impact pathway therein.

4.4. Evaluation Question 4: To what extent has this funding mechanism delivered or improved the quality of research outputs, with particular regard to deployment of technologies and robust measurement of impact, in relation to more conventional funding mechanisms (both project funding and core unrestricted funding)?

This section provides findings against the second and third outcome indicators in the logframe, these being:

- Technologies, products and knowledge which deliver significant improvements to productivity, incomes, nutrition and/or livelihoods scaled up²⁴.
- Robust systems for ex-post impact assessment.

Findings against the first indicator: new technologies, products, knowledge developed, have already been discussed in Section 4.3.

²⁴ For the purpose of this evaluation, the term 'scale up' encompasses both vertical and horizontal scaling up of technologies, products, knowledge and other research outcomes. This means both expansion and dissemination upwards in terms of institutions/sectors/stakeholders (vertical) and also horizontal scaling-up, or 'scaling out' to widen geographical spread to reach more stakeholders and end-users.

1. Deployment/scaling-up of technologies

This section first reviews deployment of technologies by Centres, with a specific focus on AVRDC, CABI and *icipe* as these three Centres had specific key deliverables that related to deployment of technologies. It next examines how partnerships between the Centres and governments, NGOs, private sector and other bodies have enabled scaling up of technologies. The section draws on material in Annex 6 concerning performance against key deliverables (where the deliverables relate to scaling-up), material in the same annex concerning EQ6, and on Annex 5. The units of analysis are the performance of the IARCs, the contribution of DFID assistance to them, and the effects of the PMFM.

(a) AVRDC

According to Senior Management, the deployment of technologies has been substantially changed by the PMFM: *"Since we are demand-driven, the planning of our core work has not changed but the allocation of resources into scaling-up has changed dramatically ... there is a higher focus on development rather than research now"*.

AVRDC is one of three Centres with key deliverables focusing on testing and, in particular, scaling-up of technologies. AVRDC tests new technologies and approaches through small-scale studies, pilots, and trials, successfully conducting user surveys and quantitative assessments of productivity and consumer acceptability. There have been increased small-scale trials leading to increased uptake of AVRDC's research outputs. But, research Centres (including AVRDC) cannot by themselves instigate broad adoption of their technologies and products – for this, extension services and seed multiplication (often through the private sector) are required. This area is addressed under the Section on "Partnerships" below.

With regard to the extent of technology deployment/scale-up in relation to AVRDC's key deliverables, its second key deliverable included testing models for scaling up of new grafting technology for tomato and chillies. As noted in Section 4.3 and Annexes 5 and 6, whilst models have been tested and there has been interest in, and uptake of, the technologies as a result, strategies to promote broad-scale uptake of new technologies have been less successful than anticipated.

AVRDC's third key deliverable was scaling-up of small vegetable gardens in more than seven countries reaching more than 100,000 households. Whilst there is traction for expansion/adoption of nutrition-rich home gardens, there is no clear strategy to strengthen wide-scale adoption. One area in which wide-scale adoption is being facilitated is in the use of private seed companies in Bangladesh and India, where the target had been to sell 200,000 seed packs but, in fact, over 1 million were sold (Annex 5).

(b) CABI

CABI already makes intensive use of farmer training (field schools and individual visits), mobile, internet and social media, video, radio and TV. Core funding from DFID's PMFM has, however, enabled CABI to improve structures for technology roll-out. Interviews with CABI-member governments suggested a growing trend for national systems to draw upon CABI scientific knowledge, training, and linkages with the private sector. The open access to information and training offered by CABI is leading national staff to adapt or change priorities to more closely align with CABI priorities. This, however, occurs alongside the extensive consultation processes

conducted by CABI to ensure that member countries' needs are at the forefront of the organisation's activities²⁵. The multiplier effect of this expanded knowledge and networking has the potential to positively influence national agricultural priorities and enhance the sustainability of CABI research. Whilst the fact that national systems are increasingly drawing upon CABI resources may not be attributable to DFID funding, that this is happening makes CABI a strong candidate for such funding due to the multiplier effects being realised.

CABI's channels to the private sector and smallholder farmers that bring useable, practical research to smallholder farmer are robust and well-proven, particularly through its partner government ministries and implementing partners. CABI has broadly engaged with the private sector, often focusing on a linkage or particular commodity. As a result of past private sector engagement, CABI is now part of multi-national, agro-industry supported, agro-informatics big data initiatives. Agro-informatics uses multiple sources of data to project future crop yields, suggest effective crop management strategies, to align production with global supply chains, and use resources of land, water and supplements and IPM strategies for greatest impact.

Core funding through PMFM strengthens CABI's operations, tangentially supporting such new initiatives. As DFID priorities move further toward private sector engagement in agriculture, CABI's advisory role in using agro-informatics to benefit smallholder farmers may hold substantial VfM.

CABI demonstrated practical understanding and agility when introducing Plantwise in India, where the national systems are already well developed with a strong sense that sufficient knowledge is being conveyed by the existing extension services. Rather than addressing the gaps in extension services at a national level, CABI chose to work through local government structures and the agro-input industry to promote proper use of inputs to increase productivity. From a VfM perspective, the potential increased cost and likely slower coverage of extension services through local government is balanced by the effectiveness of working through local structures.

In relation to CABI's key deliverables within PMFM, three involve scaling-up:

- i. CABI's first key deliverable was the roll-out of a new national plant health system, Plantwise, in 30 countries with 500 plant doctors, reaching 2 million farmers by 2014. Here, both targets for number of countries and trained plant doctors have been exceeded. Farmers reached were below 2013 target but plans indicate that the target will be exceeded by the end of 2014.
- ii. CABI's second deliverable was a facility that should enable deployment of technologies – a Knowledge Bank (v3). The deliverable is that the Knowledge Bank v3 be launched, providing open access to information on more than 2500 pests, integrated into plant health systems in more than five active Plantwise countries, with a secure system to allow national partners to easily digitise and manage their information. Findings were that targets have been exceeded and there are high

²⁵ The widespread adoption of and satisfaction with the Plantwise initiative is because it responds to a widely-shared need for improved plant health systems but is implemented on a country by country basis in a way that is responsive to and appropriate for the local needs and customs

numbers of online visitors to the Knowledge Bank. This and high numbers of page views²⁶ are an early indication of value to end users.

- iii. CABI's fourth deliverable also related to deployment of technologies, being new innovative work around use of mobile advisory services. This is a scalable service, linked to Plantwise and reaching more than 1 million farmers. Pilot mobile services were carried out in India, Kenya and Ghana, through strategic private sector partnerships with various telecom companies. Whilst there were no results within the evaluation period, there is high potential and VfM for mobile agricultural services delivery.

(c) *icipe*

icipe generally scales up its technologies through extension services, farmer field schools, video and radio dissemination campaigns and print media in different languages.

Of *icipe*'s three key deliverables under PMFM, the first one specifically concerns deployment of technologies, being: "Scaling-up of two *icipe* technologies: push-pull control of striga in cereals in Africa, and IPM technology for control of African fruit fly (currently operating in 8 countries)."

Table 10 in Annex 6 indicates progress in these areas: for push-pull technology, in 2012 there were 47,000 farmers, in 2013 there were 53,789 and in 2014, 64,077. For IPM technology adoption, in 2011 there were 1,000 small-scale orchards; in 2012 there were 1,500, and in 2013 there were 2,100. The scale-up of new technologies, and in particular, push-pull, is discussed in part in Section 4.3 Output 1 (point 1).

icipe is following an active learning curve to overcome bottlenecks that hamper full adoption of technologies. For example, push-pull technology roll-out was constrained by the availability of desmodium seed. Initially, in-house seed production was attempted, but did not suffice. In response, *icipe* contracted private sector seed companies to produce the seed and link with agricultural input suppliers to speed the scale-up of push-pull. According to *icipe*, engagement with the private sector for production and distribution of seed on a commercial basis better aligns with their long-term vision of wide-scale adoption of push-pull technology across the continent. Transition from community-based seed production to seed production by the commercial sector is an essential component of *icipe*'s horizontal scale-up strategy. Core funding gave *icipe* the flexibility to assess different approaches, and innovate accordingly.

Neither ICIMOD nor GFAR had specific key deliverables related directly to deployment of technologies.

Findings concerning partnerships

The development of partnerships (with both the private sector and the relevant institutions at local, national and regional level) is an effective pathway to strengthen IARCs' capacity and efficiency to scale up and disseminate new technologies and knowledge.

²⁶ There are over 250,000 page visits per year from 188 countries (Annex 5).

Almost all the IARCs are structurally linked to public institutions such as national or regional authorities. For example, AVRDC collaborates with more than 170 partners (both institutional and private) across the globe. Cooperation was also established with CGIAR Research Program on Integrated Systems for the Humid Tropics. CIMOD is supported by the eight governments of the Hindu Kush-Himalayan (HKH) Region and regularly cooperates with local institutions and NGOs. It established a Regional Flood Information System in the HKH Region for a timely exchange of flood data and information through an accessible and user-friendly platform with all the concerned institutions and private organisations in the region. CABI has a membership of 48 governments, including lower, middle and higher income countries. It also works in collaboration with a vast network of international partners from both the public and private sectors.

These relationships allow the IARCs to influence policymakers and facilitate the translation of their outcomes into public goods (knowledge, policies, and national or regional plans, etc.).

Partnership with the private sector is also a crucial part of all IARCs' strategies for scaling-up of their research outcomes. Cooperation and commercial agreements have been signed by all the Centres with i) NGOs for training, dissemination, and extension and ii) private companies for the mass production and distribution of outputs. More substantial partnership with the private sector is proving to increase the efficiency of transfer of knowledge and technology to end users.

Translating agricultural research into private-sector end-user uptake is a lengthy process, and the IARCs are yet to achieve the ultimate goal of fully engaging the private sector. However, most IARCs are continuing to develop frameworks to translate pure research into end-user applicability as indicated in the examples below which are included in the PMFM key deliverables for the Centres concerned.

- CABI's Knowledge Bank links plant clinics, Ministries of Agriculture, and smallholder farmers to a vast library of plant pest and production resources to improve agricultural outputs. These tools will be particularly useful to increase smallholder production and align production and pest management with national ministry priorities.
- As discussed in the section above, *icipe* is scaling-up the use of push-pull technology through private seed companies and agricultural input suppliers. This offers an excellent example as the "push-pull programme" was initially constrained by the availability of desmodium seed. An ineffective scale-up strategy of in-house seed production was attempted and failed.
- AVRDC is increasingly tracking adoption rates and new strategies for research uptake, including increased private sector engagement and economic impacts of its research.

Well-defined partnership strategies have allowed the IARCs to identify the most suitable partners for specific purposes, i.e. those with the best connection to the final users, adopting social/environmental responsibility policies, etc.

The training opportunities provided by most of the IARCs to partners, such as the training of agricultural extension staff from public institutions and NGOs, allow for a lively knowledge transfer of the IARCs' technical know-how to downstream partners, thereby building capacity for a more effective scale-up of research outputs.

All IARCs remarked that reinforced partnerships also imply responsibility, with external stakeholders interested in generation of expected impacts, as well as ownership of results. This shared responsibility is crucial in ensuring ongoing sustainability. In assessing the IARCs' capability of achieving the expected impact and sustained results beyond the PMFM's

implementation timeframe, therefore, the quality of partnerships must be considered. Relationships with strategic stakeholders should support the role of IARCs as knowledge purveyors in a dynamic political and institutional context, to facilitate effective scale-up.

Even though no financial evidence was gathered during the evaluation exercise, all IARCs declared that the development of partnerships was stimulated by the PMFM as a strategic instrument for reducing costs of research translation to end-users and increasing Centres' overall efficiency.

PMFM, therefore, enables the IARCs to allocate more human capital and more substantial financial resources to improve both the quality of research and the scale-up of technologies, products and knowledge.

2. Robust systems for impact assessment (ToC: Step change in systems for measuring impact)

The third indicator for Outcome 1 (*New technologies, products and knowledge to address agricultural yield gaps, hunger and malnutrition developed and put into use*) was “Robust systems for ex-post impact assessment”. This section provides the evaluation's findings on the extent to which the Centres achieved their targets to establish systems for, and meet their deliverables in relation to, impact assessment, whether ex-post or otherwise. The units of analysis in this section are the contribution of DFID's assistance to the Centres and the effects of the PMFM.

The section first outlines the initial guidance that DFID provided to the Centres with regard to impact assessment. It then looks at findings per Centre, followed by an analysis of the findings overall. The section draws on material in Annex 6, the 2013–2014 Annual Review reports of the Centres, various communications between DFID and the Centres, and interview material.

A. Initial guidance provided by DFID to the Centres regarding impact assessment

In DFID's January 2012 letters to the Centres confirming approval of their multi-year performance funding, there is a specific note on impact assessments which states:

“DFID funding has been approved on the basis that all Centres are strongly results focused and that each Centre will put in place measures to further strengthen robust impact assessments. Several of the deliverables reflect this. We would encourage Centres to look at the impact evaluation work being undertaken by the CGIAR's Standing Panel on Impact Assessments as indicative of the standards for which we are looking. It may also be useful for Centres to explore options for partnering with J-PAL's Agricultural Technology Adoption Initiative.”

B. Centre specific findings

(a) AVRDC

Tracking use and adoption of research is a common challenge in measuring impact and, in the case of AVRDC, there are particular methodological constraints. Partnerships with the private sector, particularly seed companies generally reluctant to release confidential data, make it very difficult to access the data to track the real adoption and impact of the technologies produced.

They did, however, meet one key deliverable of publishing one rigorous impact assessment of a new technology, tomato grafting (part of key deliverable 2). It has also completed a preliminary impact assessment in relation to its third key deliverable related to small vegetable gardens. However, DFID's comments on the quality of these impact assessments were that *"all current impact studies are observational and all therefore have significant shortcomings in identification of appropriate counterfactual (non-intervention) groups and in robust attribution of impact."*²⁷

The Centre itself had recognised that, with regard to impact assessment, *a more direct effort and budget is required to address long term M&E.*²⁸ The PMFM has thus effectively focussed AVRDC's institutional attention on the need for robust impact evaluations of research. AVRDC set up a new Impact Assessment unit in 2014 as a response to DFID recommendations on M&E and impact studies and has also begun processes to enhance staff capacity to undertake rigorous assessments of the uptake of new technologies. Efforts are being made by AVRDC to track adoption rates and economic impacts but further work is required to articulate clear pathways to impact.

(b) CABI

CABI responded to the challenge from DFID to step up its robust impact evaluation, and commissioned an externally-led evaluation of the Plantwise programme in 2013–2014. The evaluation was based on a randomised control trial (RCT) design and is expected to deliver rigorous evidence of impact, cost-effectiveness, and sustainability. CABI also prepared one impact study for peer review, and published two papers addressing impact in 2013. In 2014, DFID encouraged CABI to continue with high quality impact evaluation and to ensure that this practice *"is fully embedded in the organisation and extended to all programme areas."*²⁹

(c) icipe

icipe has grown rapidly as an institution with innovative practices that have significant long-term potential for smallholder farmers. *icipe* developed a socio-economic unit with permanently dedicated staff, which is still developing an appropriate methodology for producing robust impact evaluation studies. Two of *icipe*'s key deliverables related to impact assessment: an independent evaluation of *icipe*'s capacity development investments, and at least 2 ex-post rigorous impact assessments of *icipe* technologies. *icipe* met the key deliverable of two ex-post impact assessments.

However, two out of four studies produced in 2013 had significant shortcomings in the identification of appropriate counterfactual (non-intervention) groups, and in robust attribution of impact. The two other impact studies were based on an RCT design, but poorly described.

In 2014, DFID recommended that *full protocols for these RCTs should be prepared, and ideally published, and they should be registered on an international trial register to improve research accountability and transparency.*³⁰

²⁷ Performance Assessment letter to AVRDC, July 2014

²⁸ 2013–2014 Performance Report, AVRDC, page 18

²⁹ Performance Assessment 2013 letter to CABI, July 2014

³⁰ Performance Assessment letter to *icipe*, July 2014

(d) ICIMOD

ICIMOD demonstrated its commitment to strengthening its M&E and impact evaluation capacity by establishing a dedicated M&E unit in 2013 and developing partnerships and alliances for the production of ex-post impact evaluation studies. A number of impact studies were underway (or completed) during the evaluation period. ICIMOD's second key deliverable concerned a step change in ICIMOD systems for generating regular, ex-post impact assessments and according to the 2013–2014 report two external impact assessments were completed. However, according to the DFID review (2014)³¹ their feedback on the three impact assessment was as follows:

“Two were observational and had weak study designs with significant shortcomings in identification of appropriate counterfactual (non-intervention) groups and in robust attribution of impact. The third study has been published in the Journal of Environmental Management (Impact Factor 3.1), and whilst an interesting paper, was largely qualitative with little robust analysis of impact. The authors themselves conclude that the “sample size was small, and the findings are therefore symbolic only.”

However, DFID welcomed the ongoing randomised controlled trial on promoting maize intercropping in Nepal conducted by ICIMOD in collaboration with J-PAL.

ICIMOD noted that having core funding was instrumental to them being able to carry out ex-post assessments as is clear in the following quote:

“Ex-post evaluations are usually missing. With this kind of flexible funding, we can undertake such evaluations and investigate more the sustainability of projects/programmes. That is a very important aspect of this kind of funding. ICIMOD was able to finance ex-post evaluations because of DFID financing. Funding for such activities is not normally included or allowed in traditional funding”.

However, as is noted later in this section, there were issues regarding ex-post assessments of the majority of research projects that did not have the necessary assessment measures in place from the beginning.

(e) GFAR

GFAR's first key deliverable was the establishment of robust systems for monitoring, impact assessment and evaluation of GFAR's work. There was no specific expectation for GFAR to produce impact assessments according to the agreed milestones for this deliverable, though the generic logframe for PMFM did state that each Centre should produce one rigorous ex-post impact assessment each year.

GFAR does, however, represent a special case. In the Scott study presenting funding options for DFID³² it was clear that *“If GFAR did not exist, it is quite possible that the CGIAR reform process would recommend establishing a similar organisation that brings together a range of ‘stakeholders’ committed to promoting research for development.”* Before the outset of the PMFM implementation phase DFID was perfectly aware that *“GFAR is not a research organisation, but ... an important part of the priority setting, stakeholder consultation mechanisms of the CGIAR.”*

³¹ Performance Assessment letter to ICIMOD, July 2014

³² Scott, M. A Study on Options for DFID's Management of Support to International Agricultural Research Organisations Not Part of The Consultative Group on International Agricultural Research, December 2008.

*GFAR... aims to strengthen and bring coherence to systems generating and sharing new agricultural research globally, tackling systematic failings and efficiently lead to development outcomes for the poor.*³³

In September 2011 DFID responded to GFAR's self-assessment stating that "GFAR is providing CGIAR accountability on behalf of a wide set of stakeholders" but at the same time noting "that results frameworks are weak, systems for monitoring and evaluation undeveloped and no mechanisms are in place for external review. As a result, the impact of GFAR in terms of changes in agricultural research funding and programmes is difficult to assess". DFID further expressed disappointment on GFAR's inadequate response and the discussion ended in April 2014 when DFID core funding through PMFM ceased due to GFAR's failure to meet DFID's essential requirements.

Despite the difficulty of measuring catalytic benefits, DFID core funding and the dialogue around reporting requirements has promoted useful change within GFAR. For example, in 2014 GFAR introduced a requirement for all funding and technical support provided to stakeholders through the GFAR mechanism to include time-bound output and outcome measures. This valuable change is now reflected in the GFAR M&E processes. Still, it is not likely that the output measures will be as tangible and quantitative as research outputs because GFAR is a stakeholder forum with persuasive rather than prescriptive control over network partners.

C. General findings

During the PMFM implementation period, all the IARCs tried to improve their internal capacity and organisation to comply with DFID's rigorous requirements with regard to establishing robust, or more robust systems for impact assessment. Efforts have been characterised by funding training for specialist staff, hiring additional social scientists and economists, and establishing links with evaluation-centred institutions.

Satisfying DFID's requirements, however, remains a challenge for most of the IARCs. The IARCs' capacity to produce robust impact assessments is behind DFID expectations. Most Centres are behind schedule in meeting targets for robust impact assessments, whether ex-post or not, and reports from the Centres include enough indefinite language – planned, ongoing, expected, etc. – to raise doubts about the delivery of impact assessments. Much work remains for the IARCs to produce a robust system for documenting outcomes and impacts, and the aim is to produce high quality documentation in the mid- to long-term perspective. The first few impact studies were produced only during the last three years and mainly refer to specific projects/programmes.

DFID's focus in reviewing the quality of the impact studies produced by the IARCs tended to be based mainly on the design, which drives robustness of evidence. During the funding period, DFID continued to request that the Centres adopt an experimental more than observational approach in conducting their impact evaluations. In the ongoing dialogue with the IARCs, DFID tried to drive an improvement in quality and also more focus on the impact of basic research on target beneficiaries. DFID annual reviews also focused on the existence of clear research protocols, and the strict adoption of such protocols by the IARCs in the following year, as high quality research is typically well documented from the very start.

³³ DFID Business Case, 2011

In early 2014, letters from DFID to the Centres advising them of the outcome of their annual review included an Annex that provided explicit guidance on impact evaluation as indicated in the Box below.

Box 2: DFID expectations with respect to impact evaluation

DFID expectations with respect to impact evaluation

One of the explicit aims for DFID's performance funding to international agricultural centres is to stimulate an increase in the conduct of robust impact evaluations by Centres. The outcome indicator in the logframe against which to track progress on this aim is "robust system for ex-post impact in place", with each centre asked to undertake or initiate at least one impact assessment per year that is able robustly to demonstrate the impact of an agricultural technology or intervention on productivity, incomes, nutrition and livelihood indicators. In order to demonstrate a case for good or very good value for money, DFID has asked Centres to raise the quality of their impact assessment. In particular, DFID is asking Centres to:

- i. Make more use of experimental approaches in order to capture attribution;
- ii. Monitor measures of cost-effectiveness as well as impact;
- iii. Integrate gender specific analysis;
- iv. Generate research outputs from impact evaluations leading to publication in peer-reviewed journals;
- v. Make greater use of external evaluation teams and advice to strengthen credibility;
- vi. Enhance dedicated internal capacity for monitoring and for designing scientifically robust evaluations, with skills in both social and natural sciences. These staff must be linked into the latest thinking on evaluation methods in agriculture;
- vii. Develop a strategy for selecting technologies or interventions on which to conduct impact evaluation studies;
- viii. Provide sufficient internal resources to address adequately M&E needs and/or a strategy to attract external resources.

Embedding experimental evaluation into broader institutional M&E and project management, recruiting the right expertise, and learning to maximise external partnerships for this purpose are mostly new to these IARCs. Based on the evaluation team's interaction with the IARCs' management staff, at least some of them (particularly *icipe* and GFAR) were open to the possibility that they had underestimated the challenges of implementing the required changes to meet the agreed deliverables, as is clear below.

Interviews were held with each of the research Centres (AVRDC, CABI, *icipe* and ICIMOD) in August 2015 which covered: how they assess impact; DFID's expectations in relation to impact assessment; the guidance received from DFID on impact assessment; challenges faced and how they were addressed; and if/how the PMFM requirements regarding impact assessment have influenced how the Centre as a whole plans to address impact evaluation in the future. Findings were as follows.

Whilst AVRDC already had an understanding of robust impact assessment as requiring valid counterfactuals to correctly attribute impact to technologies and interventions, RCTs were not given high priority due to budgetary constraints, and the fact that other evaluation methods were considered globally acceptable. *icipe* noted that how impact assessment has been understood had changed significantly over the last decade, one consequence of this being that studies started some years ago were not designed to have baselines or control groups for example. ICIMOD had traditionally been using a mix of methods to document impact and lessons learned. As CABI became more experienced in developing impact assessments they realised that they had to structure their projects more effectively as (social) science experiments rather than outright development efforts in order to facilitate impact assessment and increase its rigour.

On DFID's expectations regarding impact assessment under PMFM, *icipe* noted that DFID are "a bit further down the value chain of impact" than *icipe*. Whilst none of the Centres disagreed with the value of stronger evidenced and rigorous material on impact, they noted the constraints in achieving this, and particularly retrospectively. They also noted that, in agriculture, natural resources management and social science, there are many confounding factors that make application of experimental evaluation methods inappropriate. One Centre suggested that the choice of methodology should depend on what one wants to achieve through an impact assessment. Centres also recognised that experimental methods, even if they can be afforded, may only often be useful to assess particular aspects of a research project.

In terms of guidance that the Centres received from DFID, they mentioned that this took a while, perhaps because thinking was also evolving on the part of DFID. ICIMOD and CABI have had very helpful guidance through being linked with J-PAL,³⁴ 3ie³⁵ and others with a strong background in rigorous impact evaluation. For example, for ICIMOD, collaboration with J-PAL has helped them successfully design a full RCT on an agricultural extension project in Nepal. Further, the M&E group under the AIRCA allowed for sharing of experience on this matter. Centres, however, did question the applicability of some of the guidance they received. An example from AVRDC concerned their being encouraged to use medical/health indicators to measure nutritional outcomes whilst they are not a medical institution. *icipe* hopes to develop similar linkages to impact assessment experts in the way that ICIMOD and CABI have.

As is clear from the above, the Centres faced challenges in carrying out impact assessments in the ways expected by DFID's PMFM. As mentioned, one challenge is that ongoing and recently completed research projects had not been designed to gather data in the way envisaged by DFID. A deeper challenge, mentioned by CABI and ICIMOD, is that, whilst senior management may understand the value of gathering such evidence, project managers and Centre partners felt that spending project money, for example on a control group, was counter-intuitive, asking how ethical it is to divert funds from beneficiaries to gathering evidence. This is being addressed through raising awareness and recruitment. One solution to the issue of needing data gathering systems in place from the design phase is also being pursued by AVRDC who are initiating studies that require less lengthy data collection.

Generally, however, all four Centres recognised the value of more rigorous impact assessment, if funding allowed and in the right circumstances. This is clear from the ways in which the PMFM requirements have influenced how the Centres plan to assess the impact of their other projects,

³⁴ Abdul Latif Jameel Poverty Action Lab (see www.povertyactionlab.org/)

³⁵ International Initiative for Impact Evaluation (see <http://www.3ieimpact.org/>)

change mind-sets, build capacity and seek to mainstream more rigorous impact assessment procedures institutionally. At the time of interviewing (August 2015), ICIMOD had established a rigorous methodology for several other of their initiatives, stating, *“In certain areas where we can apply them it becomes a very useful tool for us ... It has changed our understanding and brought a lot of clarity amongst the staff”*. CABI too stated that they are committed to mainstreaming rigorous impact assessment: *“It becomes a virtuous circle. You get better evidence and then you get better projects”*.

D. Discussion regarding EQ4

The EQ for this section was *“To what extent has this funding mechanism delivered or improved the quality of research outputs, with particular regard to deployment of technologies and robust measurement of impact, in relation to more conventional funding mechanisms?”*

Three of the Centres had specific key deliverables on scaling-up or deployment of technologies. CABI already had many mechanisms in place for scaling-up. They continued to use these and made good use of partnerships with the private sector and they exceeded their targets. For AVRDC and *icipe*, reaching targets was a little more challenging though *icipe* made good use of private seed companies and input suppliers for scaling-up push-pull technology, and AVRDC noted that the PMFM has led them to allocate more resources to scale-up efforts.

Whilst more progress could be made, it should be noted that these are primarily research stations and that there are many other bodies that have responsibility for scaling-up of research, including government extension services. Further, each Centre’s scaling-up effort needs to take place on a multi-country basis, and is thus subject to the capacity and will of national research stations and their partners at country level.

Turning to robust measures of impact, guidance from DFID on what was expected was gradual, and most Centres had been using mixed methods to measure impact. Challenges were faced in carrying out impact assessments based on strong RCT or quasi-experimental approaches as these methodologies had not been built into the design of ongoing or recently completed research projects. Nevertheless, Centres did see the value of more rigorous impact assessment and some were looking to mainstream this in future design of research projects (in terms of catering for baselines, controls, etc.). However, all Centres felt that there are only certain occasions or components of projects where such measures can be usefully applied and only then when there is a budget for this. All favoured the continued use of a mix of methods, depending on the purpose of the impact assessment.

PMFM funding has contributed to future impact assessment in a two-fold way: first, through the Centres now strengthening their M&E generally and, in the case of ICIMOD, setting up a separate impact assessment unit; second, by enabling links with impact assessment experts like J-PAL and 3ie to build capacity of staff and to design experimental research projects.

Deployment of technologies and setting up and delivering robust impact assessments take time and it is likely that both will improve over the remaining time that PMFM is supporting these Centres.

4.5. Evaluation Questions 6 and 7: What progress, if any, have the Centres made towards demonstrating their outcomes and ultimate impacts through improved documentation, internal studies and commissioned evaluations? What evidence (selective but robust) of achieved or prospective development impacts has been generated through this evaluation?

In assessing the ultimate impacts of the IARCs' research, the evaluators have addressed two questions:

- What evidence (selective but robust) of achieved or prospective development impacts (or lack thereof) has been generated through this evaluation?
- What progress, if any, have the Centres made towards demonstrating their outcomes and ultimate impacts through improved documentation, internal studies and commissioned evaluations?

The PMFM is expected to contribute to the achievement of the overall objective (goal) of the DFID programme "Support to International Agriculture Research Centres (IARCs) that Benefits Poor People", as set out in the logframe and the ToC: The units of analysis for this section were Performance of IARCs and effects of the PMFM.

Agricultural investments leverage poverty reduction and tackle malnutrition

The main research programme lines of the IARCs have a long-term perspective and strengthening of impact evaluation capacity is still in progress as highlighted in earlier discussions. Given this, it is not yet possible to have a robust, evidence-based assessment of the PMFM's contribution to the IARCs' generation of sustainable impacts.³⁶

The IARCs' impact generation capacity depends on both internal and external factors, such as i) the time horizon of research programme(s), ii) partners' efficiency, and iii) political/institutional context. Impacts generated by the same research programme can also differ according to spatial and time factors (i.e. the number of countries and rural areas involved as well as the time schedule of the research programme). For these reasons, the extent to which DFID's PMFM has proved to facilitate (or encumber) the achievement of the Centres' planned impacts is mainly based on the analysis of IARCs' impact-oriented investments, their existing strategies to generate sustainable impacts and their efforts to demonstrate and disseminate their ultimate impacts.

In general, terms, the strategy adopted by all the IARCs to scale up their research outcomes and generate the expected impacts is based upon three main pillars, in particular:

- Promotion of partnership with public institutions, NGOs, private sector and other research institutions;
- Communication and dissemination (C&D) of results;
- Stakeholders' involvement and dialogue with policy makers.

³⁶ Data on documentation, internal studies and commissioned evaluations specifically related to PMFM key and cross-cutting deliverables were not reported on separately by the Centres in their annual review reports nor explored in detail by this evaluation. They were listed as milestones in relation to particular indicators for specific key deliverables and are addressed under those particular output indicators in Centre Annual Review reports. Tables in Annex 6 indicate where such documentation was done in relation to each deliverable for each Centre.

These three strategic activities are consistent with what has been set out in the ToC as activities that can facilitate the achievement of prospective impacts. Hence, from a theoretical perspective and, based on the ToC, the proceeding discussion will provide the final piece for the contribution story.

Partnerships have been discussed in detail under Section 4.4. Hence, the discussion below focuses on the C&D of results and the stakeholders' involvement and dialogue with policy makers.

Annex 5 also provides a summary of the most relevant evidence of the achieved or prospective sustainable impacts generated so far by each IARC financed under the DFID PMFM scheme. It details IARCs' achievements in communication and dissemination as well as in promoting partnership and dialogue with policy makers, these being activities strictly related to the production of sustainable impacts.

1. Communication and dissemination (C&D) of results

The unrestricted core funding mechanism gave all the IARCs financial flexibility to intensify their communication and dissemination activities. A communication unit has been set up in CABI, ICIMOD and AVRDC, and is underway in *icipe*. The IARCs have also developed communication strategies involving different instruments such as educational publications, video and radio campaign, on-field demonstration activities, etc. Non-traditional instruments involving new technologies and the important role of community leaders have also been identified as pivotal for channelling research-based key messages (e.g., CABI Mobile programme, AVRDC grafting home gardening programmes).

CABI, AVRDC and ICIMOD are attempting to analyse their communication and dissemination campaigns in order to identify the most effective instruments to support their impact strategies. One of the main challenges under consideration is the most appropriate method for communicating and disseminating impact evaluation results when the target audience includes stakeholders in different countries, communities and institutions.

2. Stakeholders' involvement and dialogue with policy makers

All the IARCs provide sufficient dialogue opportunities (fora, virtual environments, direct consultations) to involve their relevant stakeholders in the identification of end users' needs and priorities. The majority of the core research activities of the IARCs can be defined as “*demand-driven*”, e.g. i) AVRDC genetic research for specific pest-resistant horticulture varieties is based on the demand from end-user organisations and/or private breeders from many Asian countries; ii) *icipe* research for specific Integrated Pest Management (IPM) solutions is based on demand from several African Governments and/or farmers communities; and iii) ICIMOD glaciers' monitoring activity and early warning for disaster prevention responds to the request of the eight ICIMOD member states.

The involvement of stakeholders in project monitoring has become more prevalent during the PMFM funding period due to improved and more effective M&E systems and procedures of the IARCs at both the project and overall centre level. However, stakeholder's involvement in systematic impact evaluations is still sporadic, as this activity is still in progress in most of the IARCs.

GFAR's mandate is exactly that of strengthening stakeholders' participation in AR4D worldwide. GFAR has been playing a crucial role in redefining CGIAR's overall strategy, mainstreaming gender into the research practice and linking agricultural research centres with the stakeholder organisations. The GCARD (Global Conferences on AR4D) organised by GFAR provides a forum for different stakeholders such as the private sector, farmers and extension agencies, that ensures responsiveness of the CGIAR to the needs of the end users of research.

As mentioned earlier, almost all the IARCs have strong institutional links with governmental and/or regional institutions and are frequently asked to support the definition of agricultural or environmental policies.

4.6. Comparative analysis

In assessing further the impact of the PMFM on the performance of the IARCs, a comparative analysis was undertaken for this evaluation aimed at understanding two comparative scenarios:

- (i) The difference the introduction of the PMFM has made on the five IARCs after its implementation. A "retrospective approach" where a scenario prior to the introduction of the PMFM was restored was adopted and a number of conjectural "shift-back" scenarios were discussed during the interviews with IARCs' staff.
- (ii) An indication of what would have happened in the PMFM's absence using IARCs³⁷ (counterfactual Centres) currently not receiving DFID funding.

This comparative analysis supplements the team's evidence to inform the formulation of recommendations to improve the design and implementation of the PMFM. These recommendations are in Section 5 of this report.

Most of the results of the retrospective comparison are implicit and embedded in the discussions related to efficiency, effectiveness and impacts, for example in Section 4.3.2, with particular regard to the positive consequences of the multi-annual, unrestricted core funding component of the PMFM. Hence, this section provides a more detailed account of the most relevant results of the "comparative analysis".

In spite of the differences between the two counterfactual centres (different historical background, research focus and geographical areas of operation), there were strong similarities in their responses to almost every line of enquiry pursued during the comparative analysis.

Excessive fundraising through consultancies and small project-based funding (combined with the lack of core funding donors) is a key constraint that hampers research management. The two counterfactual IARCs receive funds from a large number of donors operating under different funding schemes. A not insignificant amount of administration is required in order to account and report for the funds in different ways. Between five and ten per cent of accounting staff have to deal with reporting requirements. Moreover, donors try to cut overheads, which puts more pressure on the implementation partners. Most of the donors of the counterfactual centres are not able to finance the centres' full indirect costs and focus only on the expenses incurred by the projects they fund. Both the counterfactual centres are questioning whether this situation is viable in the long term.

³⁷ Centro Agronómico Tropical de Investigación y Enseñanza (CATIE) and International Centre for development oriented Research in Agriculture (ICRA).

None of the centres' current donors are able to fund long-term research programmes. Three years is the usual maximum funding period at the moment. In the sectors of agriculture, forestry and environment, no validated research outputs or impact on the end users is normally achievable in three years. A further aggravating factor is the tendency of the donors to change their geographical fund allocation policy which contributes to instability and uncertainty of funding in the medium and long term.

Because of this, the centres are forced to resort to small consultancies and short-term research projects, resulting in more development-oriented rather than research-oriented projects. This increases the administrative work and decreases the effectiveness and impact of the research activity.

Such dependence on private consultancies and small projects also negatively impacts on the following institutional dimensions:

- **Human resources and staff performance** - unlike the five PMFM-funded IARCs that were able to recruit additional, much needed expertise through the unrestricted core funds, the counterfactual IARCs have had to re-orient their respective recruitment strategy towards staff with more managerial than scientific/technical skills. Senior staff are consequently not directly involved in research, putting pressure on other staff. This re-orientation also increases staff turnover, with the centres unable to retain the scientific and technical expertise of their seasoned researchers. As a key informant noted *"We spend far too much of our time and energy on managerial issues and fundraising, networking and activities which are not directly productive. We are a capacity building centre so we used to do a lot of training activities in country. We are less efficient nowadays than we were before."* The employment of PhD or post-doctoral students should be encouraged but most donors do not finance such programmes.
- **Incorporation of cross-cutting issues (i.e., gender, environment and capacity building)** - whilst some donors are interested in strengthening the two centres' management capacity, donors usually do not provide funding support for these types of high quality outputs. Instead, it drives the centres to focus on cost-effectiveness. One of the counterfactual centres noted that the CGIAR funding system seems to be more open to facilitating the incorporation of cross-cutting issues (gender equality, landscape conservation, improved M&E system, etc.).

Discussion

Given the above, and considering other evidence presented elsewhere in this report, it is reasonable to conclude that, without the core funding, the five beneficiary IARCs would not have progressed (or would not have progressed so far) in strengthening their overall management capacity. Their long-term view and strategic planning may have been hampered by more opportunistic fundraising. Overall research activity would have been more fragmented into a greater number of small and short-term projects with limited coherence with the general research objectives and without a long-term perspective.

Short-term, project-oriented fundraising activity and the management of a large number of small research projects would also have led to higher administrative costs, with more human resources diverted away from core research functions and more staff devoted to bidding, reporting, coordination and project management.

The absence of unrestricted funding would have limited the IARCs' investments in M&E, impact analysis, partnership development and dissemination and communication, with a consequent lower capacity to produce and disseminate knowledge and technical innovation.

The mainstreaming of cross-cutting issues (gender equality, environment and capacity building) would have been project-specific only, thus restricting the ability of the IARCS to mainstream these issues in their operations.

5. Lessons Learned and Recommendations

The recommendations from this evaluation are outlined in Table 7 at the end of this chapter. They are based on lessons learned and the findings presented in Chapter 4. We also indicate, for each lesson, where this has wider relevance for research funding by DFID. The lessons and recommendations fall into five categories: design of the PMFM; wider awareness of PMFM; the PMFM indicators; the PMFM process; and VfM measurement by Centres.

5.1. Lessons learned

A. Design

Lesson 1: Joint elaboration of the ToC between DFID and the Centres would have aided clarity Joint elaboration of an explicit ToC with the Centres at the design or start-up phase of the PMFM would have enhanced understanding of the aims, operations, expected effects and impact pathways of the programme. Developing the ToC together would also have improved an understanding and agreement of language, expectations and processes.

This represents a broader lesson for DFID on the process and timing of developing ToCs with funding recipients.

B. Wider awareness

Lesson 2: Most Centre donors were unaware of the PMFM process There was limited awareness amongst other donors of the PMFM process and no clear information sources on the PMFM, such as a web page or factsheet available through Centre websites. Thus, awareness of PMFM was informal, and there was no explicit or visual ToC that could be shared with other donors.

In order to strengthen partnerships and share knowledge and experience with other donors and partners, it would be beneficial for DFID to consider such information-sharing opportunities, as part of its wider communication strategy.

C. Indicators

Lesson 3: The increased recognition of open access journal publications is good but there needs to be clear communication on how this could work vis-à-vis the publication targets set by the Centres at the start of the funding The emphasis placed on publications in peer-reviewed journals (evidencing quality), and the interest in how many had an impact factor greater than 2, was not always consistent with Centres' practice of publishing in open access journals. For some Centres, this was not an issue, owing to the nature of their research and its suitability for publication in peer-reviewed and high impact journals. Indeed, such Centres (ICIMOD and *icipe*) might benefit from publishing in open access publications which also have impact weightings. However, for CABI and AVRDC, the 'applied' nature of their scientific research makes it less suited to publication in high impact journals or in open access journals with high impact weightings. Some Centres felt torn between aiming to reach the targets set for PMFM and reaching their key target audience through their usual channels. Meanwhile, evaluation findings were that, over the course of 2011–2014, there was a gradual shift in thinking by DFID regarding PMFM and increased encouragement to publish in open access journals. It is not clear whether this shift meant that Centres had greater flexibility with regard to their targets for this indicator.

The broader lesson that can be derived from this experience is that it is important for DFID to monitor the impact of its evolving policies on its funding beneficiaries, and maintain communications with them in order to ensure that partners understand the implications for performance targets.

Lesson 4: Clear understanding of, and agreement on the purpose and evidence base of a case study is required from the design phase From the findings regarding case studies discussed in Chapter 4, the first lesson is that it would have been helpful if there had been discussion about what a case study should be. This could have been achieved if the ToC had been developed collaboratively at the start of PMFM. For DFID, the lesson here is that, whilst they would like to see case studies with better evidenced impacts, this may not always be feasible, and particularly where research projects have not been designed with impact assessment in mind. However, from the point of view of the Centres, whilst they will continue to interpret case studies in different ways, and use them for different purposes, they do see the value in producing more rigorous, evidence-based case studies, and are looking to build the appropriate measures into the design of new research projects.

A further lesson here is that the nature of a measurable output, such as a case study, might be interpreted differently by different groups, and it is necessary to identify such cases and achieve a shared understanding in order to ensure that goals related to such outputs are realistic.

Lesson 5: The dual attention paid to institutional and development gender and women's empowerment indicators by PMFM was effective As is clear from Chapter 4, there were two indicators relating to gender: under Output 1 - research outputs with a specific focus on women's empowerment and gender analysis; and under Output 2 - institutional aspects. Both indicators led to an increased focus by Centres both within and beyond their institutions.

For Output 1, measurement was related to research outputs and publications by women or about gender and/or women's empowerment. Much of DFID's feedback in later years for the Centres was more directly related to research design and implementation at field level, advising the Centres that they need to integrate gender analysis across their research portfolio and embed gender analysis in the design of field level work (this feedback resulting in some cases from field visits). However, one point to note here is that the Centres work across many countries and through many partners, so there are a number of stages between building capacity at the Centre and embedding gender analysis at field level, where the Centre may be dependent on the capacity of national partners whom they may not have had the opportunity to train.

For Output 2, institutional changes due to PMFM such as capacity building and development of a gender strategy/policy, informed the quality of research and planned research outputs. The indicators prompted Centres to approach gender and women's empowerment from angles they may not have considered before.

It is important for cross-cutting issues such as gender to be explicit as a result area in order to ensure that it is accorded the necessary attention and resources. A collaborative approach to setting such a result area is required for DFID and the fund recipients to reach a common understanding of the challenges and constraints on the ground and consequently arrive at a realistic target.

Lesson 6: A common and negotiated understanding of impact assessment is important It is clear that more discussion at the start-up of PMFM would have been beneficial in ensuring a common understanding of impact assessment. This could have occurred if the ToC had been

developed collaboratively. This may also have helped the Centres set realistic targets for key deliverables over the evaluation period, and enabled consideration of the fact that many ongoing or recently completed research projects had not been designed to include assessment measures, such as baselines or control groups. Discussion of ways in which Centres can measure impact would have been useful in identifying types of impact assessment and their usefulness in different circumstances, as well as the VfM of conducting rigorous experimental or quasi-experimental assessments. A positive lesson for DFID, however, is that, by placing emphasis on rigorous impact assessment, Centres have acknowledged the role of rigorous methods, and are applying these, where appropriate.

D. Process

Lesson 7: Provision of multi-year funding is advantageous to the Centres Whilst many of the advantages of multi-year funding also relate to it being core funding (see Lesson 8), its ‘multi-year’ aspect allows for stronger mid-term planning, and provides Centres with the financial stability to be able to take a more strategic and efficient approach to fundraising. VfM is improved as time and resources used for fundraising (especially short-term projects), are freed up for scientific work. Also, VfM is improved by the Centres being able to leverage further funding by being able to offer co-financing. Multi-year funding is particularly appropriate for agricultural research centres where most projects (and the accompanying administrative and management support needed for these) span several years at least. The security and predictability of the core funding allows for more strategic, efficient and effective planning, both on an annual basis and over the funding period as a whole.

The lesson here is very clear and has wide application for DFID and other research funding bodies – the stability of longer-term research grants can facilitate a more strategic use of funding, which can deliver value for money.

Lesson 8: Provision of core funding is advantageous to the Centres As noted in relation to Lesson 7, many of the advantages of core funding are tied in with it being provided on a multi-year basis. Specifically in relation to ‘core’ funding, this allows Centres to invest in building institutional capacity (for example, in strategic planning, M&E, gender, impact assessment) and in embedding the expertise required to respond to DFID PMFM requirements. It has also allowed Centres to carry out ex-post evaluations that project funds do not allow for, and to complete previously started research that has been halted due to depletion of funds. The overriding message from the Centres was that project-based funding does not cover the funding needs and that they have to be sufficiently equipped to support the projects. Core funding affords the Centre with much needed flexibility – something that restricted project funding does not.

Here, the lesson for DFID relates to the need for research organisations to be able to benefit from funds that are not project-specific, so that institutional growth and development can occur.

Lesson 9: There is insufficient evidence that the performance component of the PMFM incentivises performance As explained further in Annex 6, the evaluation was unable to find sufficient evidence to link the performance or ‘bonus’ element of the PMFM to improved performance, given the limited achievement of the PMFM. Rather, and in line with wider evidence on the effectiveness of financial incentives, it was even regarded as punitive when not granted. Whilst the evaluation learned of how Centres that received bonuses had used them, there is insufficient evidence in those cases that the bonus itself stimulated greater efforts by the Centres than the core funding arrangement.

This lesson illustrates why the effects of bonuses on performance are difficult to understand, given the numerous factors that affect performance on an organisational level. Consideration of the wider body of evidence on the effectiveness of financial incentives in powering performance would also be beneficial.

Lesson 10: Greater dialogue, clarity and guidance to Centres enhanced their understanding of how performance was measured, and improved it as a result If details of the PMFM had been discussed and collaborated on at the start, then early challenges in reporting may have been reduced. While the decision-making process for awarding bonuses was not clear at the beginning, the performance review process led to greater clarity over time. Both DFID and the Centres learned as the process went on, as reflected by the increasingly clear guidance being provided to the Centres on reporting, by the resultant reports, and by the increasingly clear performance review letters from DFID. While communication throughout the year would also have provided Centres with further indications of whether they were heading towards receiving a bonus or not, this would influence the “light-touch” approach of PMFM. The Centres all appreciated the opportunity for greater dialogue with DFID, and with each other, that PMFM afforded. Guidance, communication and visits by DFID were appreciated where these existed, and were missed where lacking.

There is clear evidence in this study of the importance and benefit that is gained from the opportunity for both parties to engage in strong two-way communication, including through the performance review process allows for strong two-way communication between parties.

Lesson 11: IARCs should be able to plan adequately for the use of additional or bonus funds in order to increase Value for Money Unlike core funding, Centres will not have been able to properly plan for the use of any bonus sums awarded, as they could not be certain of receiving them. The evaluation also found that there was a perception, albeit a false one, that bonuses should be spent by the end of the following year. As a result, Centres might not necessarily use bonus funds in the most strategic way, or in a way that delivers best value for money.

E. Value for Money (VfM)

Lesson 12: There could be more clarity on what needs to be measured to demonstrate VfM, and how As detailed in Annex 6 in particular, greater clarity is needed on behalf of both DFID (PMFM) and the Centres with regard to what to measure to demonstrate VfM and how to go about this. A lesson learned is that measuring the VfM of investments in research is difficult as the results of scientific research require appropriate channels to facilitate translation of research into end-user benefits.

As DFID seeks to move agricultural research to a more rigorous, assessed, and translational level, new metrics of VfM may need to be developed and applied.

5.2. Recommendations

As indicated in the table at the end of this chapter, nine recommendations are drawn from the above lessons, each of which is discussed in turn below.

A. Design

Recommendation 1: Elaborate an explicit ToC for Phase 2 of PMFM in collaboration with the Centres involved It is recommended that the ToC is elaborated with the target research

organisation as the first stage in developing the deliverables to be achieved under the funding mechanism. This should clearly define the processes, outputs, outcomes (particularly immediate and intermediate), expected impact and the assumptions. This should be accompanied by a capacity assessment of the IARCs to assess their strengths and weaknesses, and in particular the need for changes in internal systems and processes in order to be able to develop a coherent plan that i) identifies realistic targets for deliverables; ii) elaborates strong research output quality assessments; iii) specifies opportunities for IARC-led dialogue with DFID; iv) translates the research outputs into scaling-up and dissemination processes; and v) develops robust impact evaluation capacities. (Joint action for DFID and the concerned Centres).

B. Wider awareness

Recommendation 2: Learn from Centres about other donor initiatives, and communicate about PMFM effectively It is recommended that, whilst scoping a second phase of PMFM or planning PMFM in another context, DFID learns from the respective IARCs about any other core, multi-year and/or performance-related funding that they may be receiving. Further, it would be useful for the Centres to be able to link those interested in PMFM to either a website or a downloadable pdf factsheet about PMFM, including relevant information on the purpose, objectives, design features and key components of PMFM. Once the ToC is elaborated and agreed upon, this could also be shared. (DFID to take the lead).

C. Indicators

Recommendation 3: Ensure joint understanding, negotiation and consensus on what is required in relation to PMFM indicators Either through or following from the collaborative development of the ToC (Recommendation 1), it is recommended that joint understanding, negotiation and consensus on what is required in relation to each of the research publication, case study, gender and impact assessment indicators is attained. It is imperative, during the targets setting stage, that the Centres align their targets both with their ambition and actual capacities (or foreseen capacity growth). (Joint action for DFID and the concerned Centres, with DFID facilitating, coordinating and leading the process).

D. Process

Recommendation 4: Continue provision of multi-year funding in Phase 2 and consider its use in DFID's support to other research centres (DFID to lead).

Recommendation 5: Continue provision of core funding in Phase 2 and provide more direction in its use As explained in detail in Annex 6, the core funding aspect of the PMFM is of great value to the IARCs, and provides them with flexibility with low transaction costs for DFID. We recommend that this important aspect of the PMFM is preserved. However, we suggest that DFID provides IARCs with greater direction in the use of their core funding, and focuses this in those areas in which DFID can make most impact, namely in supporting i) institutional strengthening of IARCs and ii) private sector uptake of IARC research outputs. Reporting on key deliverables in these areas would continue to be an important element of the PMFM.

Recommendation 6: DFID to reassess the structure of the PMFM and consider the introduction of a "Special Award" to replace the bonus element of the PMFM whilst preserving the core funding. This would be granted at DFID's discretion on the basis of innovations by the IARCs that are independent of the core funding, and in areas that DFID would like to accelerate. For example, if core funding has opened up opportunities for scale-up, DFID could make a special award to further invest in that specific opportunity. Further suggestions on

how a Special Award might operate are provided in Annex 6. We recommend that the Special Award is not linked to performance in achieving the key deliverables associated with core funding, although capacity to deliver the objectives of the Special Award should be assessed before it is granted.

Recommendation 7: Continue dialogue and communication with IARCs through the performance review process and other mechanisms DFID should continue to provide clear guidelines on performance review report structure, content and length. These should be based on clearly established logframes with indicators, milestones and targets that relate to the ToC developed with the Centres. It is also recommended that DFID consider whether they can, within their own constraints and VfM considerations, enhance dialogue with the Centres between the annual performance reviews and formal responses. If the performance component remains a part of PMFM in the future, it may be worth considering whether it is possible to introduce some communication at a midpoint within the reporting period. This would provide an opportunity to discuss progress and challenges, and highlight areas where further guidance from DFID might be required to enable Centres to respond to action points identified during the annual review.

Recommendation 8: Improve the ability of IARCs to plan for use of 'bonus' funds If the performance component is retained, DFID should allow Centres a period in which they can better plan for its use. This can only occur once they know it is secured, and this planning period would need to be considered as part of the core and bonus award cycle. This should also be accompanied by a clear definition of the spending window for the use of any bonus funding.

E. VfM

Recommendation 9: Consider ways in which to build expertise in measuring VfM in the context of agricultural research Centres It is recommended that further definition and clarification for VfM assessment in research projects should be developed through an internal DFID-commissioned study to develop useful VfM criteria. The results of this study should then be discussed with the Centres, in order to develop a framework for the ongoing assessment of the Centres' VfM and jointly agreed indicators, tailored to each Centre's circumstances. The indicators should be revised after a year with Centre input based on their use of the indicators in the first year. Annex 6 provides initial thoughts on VfM criteria that can be considered in relation to economy, efficiency, effectiveness and equity.

Table 7: Summary table linking findings, lessons learned and recommendations

Findings section*	Lesson learned	Wider (Yes) or potential wider (P) relevance	Recommendation for next phase	Wider (Yes) or potential wider (P) relevance
A. Design				
4.1	L1: Joint elaboration of the ToC between DFID and the Centres would have aided clarity	Yes	R1: Elaborate an explicit ToC for Phase 2 in collaboration with the Centres.	Yes
B. Wider awareness				
4.2	L2: Most Centre donors were unaware of the PMFM process.	Yes	R2: Learn from Centres about other donor initiatives, and communicate about PMFM effectively.	Yes
C. Indicators				
4.3 Output 1 (& 4.1)	L3: The increased recognition of open access journal publications is good but there needs to be clear communication on how this could work vis-à-vis the publication targets set by the Centres at the start of the funding		R3: Ensure joint understanding, negotiation and consensus on what is required in relation to PMFM indicators.	Yes
4.3 Output 1 (& 4.1)	L4: Clear understanding of, and agreement on, the purpose and evidence base of a case study required from the design phase.			
4.3 Outputs 1 and 2 (& 4.1)	L5: The dual attention paid to institutional and development gender and women's empowerment indicators by PMFM was effective.			
4.4 (& 4.1)	L6: A common and negotiated understanding on impact assessment is important.			

Findings section*	Lesson learned	Wider (Yes) or potential wider (P) relevance	Recommendation for next phase	Wider (Yes) or potential wider (P) relevance
D. Process				
4.2, 4.3 Output 2 (pt 5) (& 4.1)	L7: Provision of multi-year funding is advantageous to Centres.	Yes	R4: Continue provision of multi-year funding in Phase 2 and consider its use in DFID's support to other research centres.	Yes
4.2, 4.3 Output 2 (pt 5) (& 4.1)	L8: Provision of core funding is advantageous to the Centres.	Yes	R5: Recommendation 5: Continue provision of core funding in Phase 2 and provide more direction in its use	Yes
4.3 Output 2 (pt 7), (& 4.1)	L9: There is insufficient evidence that the performance component of the PMFM incentivises performance	P	R6: DFID to reassess the structure of the PMFM and consider the introduction of a "Special Award" to replace the bonus element of the PMFM whilst preserving the core funding	P
4.3 Output 2 (pt 6), 4.2 (& 4.1)	L10: Greater dialogue, clarity and guidance to Centres enhanced their understanding of how performance was measured, and improved it as a result	P	R7: Continue dialogue and communication with IARCs through the performance review process and other mechanisms	Yes
4.3 Output 2 (pt 6)	L11: IARCs should be able to plan adequately for the use of additional or bonus funds in order to increase Value for Money	Yes	R8: Improve the ability of IARCs to plan for use of 'bonus' funds	Yes
E. VfM				
Annex 6	L11: There could be more clarity on what needs to be measured to demonstrate VfM, and how.	Yes	R9: Consider ways in which to build expertise in measuring VfM in the context of agricultural research Centres.	Yes

*Annex 6 is referred to for Recommendation 8, but is also a source for several other findings alongside the sections in Chapter 4 that are specifically referenced in the first column above.

6. Conclusion

The PMFM represents a significant step forward in creating a more guided and interactive core funding approach, with defined outputs and indicators within a strategic framework against which to monitor progress and the award of a bonus payment.

Processes that DFID has put in place under this funding mechanism include setting the key deliverables at the outset of the funding and establishing an annual performance review process. These are important processes which increase the focus of the IARCs on the agreed outputs and outcomes.

On balance and, with due consideration of the IARCs' achievements discussed in depth within this report and the internal and external factors that affect such achievements, the evaluation found that the PMFM has been generally effective in delivering high quality research, the agreed results, and value for money.

Since the IARCs operate in different contexts, however, with varied resources and capacities, it is reasonable to expect that the speed at which learning occurs will vary. Achievement of agreed deliverables and targets is likely to take longer than planned and hoped for, in some cases, and this should be taken into account when considering what must be reasonably expected from the IARCs. Here, a shared understanding of the IARCs' actual capacity, taking account of foreseeable growth and learning, to deliver agreed outputs, is essential. Such an understanding will ideally accompany the setting of the targets for the key deliverables and the collaborative establishment of the ToC at the outset of the funding.

This evaluation included a recommendation through which the bonus component of the PMFM should be revisited. This, and the continuation of the PMFM with renewed emphasis on the need to improve the understanding of the impact pathways, would increase the meaningful benefits to be derived from DFID's funding.

In conclusion, the PMFM has been a "first" for all concerned, and its evolution over time is to be expected. DFID can further incentivise research Centres to achieve targeted results through financial incentives if it is able to expend the additional effort to continue positive dialogue with Centres through the PMFM; to exercise thought leadership by identifying high priority goals for each centre; and to develop greater internal clarity about how to measure performance of each centre. As such, the PMFM will be a significant value-adding innovation.

Annex 1: Terms of Reference

Evaluation of DFID's Performance Management Funding of International Agriculture Research Centres

1. Overall Purpose

DFID wishes to commission an evaluation of the multi-year performance management arrangements introduced for our research funding of specific international agricultural research centres over the period 2011 to 2015. The study will also consider the outcomes and prospective development impacts of these centres.

2. Introduction and Context

DFID is a substantial investor in international agricultural research. A significant proportion of this investment is channelled through a network of international agricultural research centres, known as the CGIAR system. Additionally, current investments include a programme to support other selected agricultural research centres, titled "Support to International Agriculture Research Centres that benefits Poor People".

The original programme approval was for £30m. An extension was approved taking the programme total to £40m over four years from 2011–2015. The intended impact of this programme is agricultural growth that contributes to poverty reduction and improvements in nutritional status. Under this funding, DFID planned to scale up its support to high performing international agricultural research centres, linking funding to delivery in order to leverage higher performance, particularly around scaling-up and robust systems for impact measurement.

The intended outcomes of the programme as a whole are:

- New technologies, products and knowledge to address agriculture yield gaps, hunger and malnutrition;
- Technologies, products and knowledge put into use at scale;
- A step change in systems to measure impact.

The programme adapted the value for money assessment framework used in the DFID Multilateral Aid Review (MAR) in order to prioritise research centres, and to structure the deliverables against which each centre is measured. The methodology used to prioritise centres uses a set of rigorous criteria reflecting both cost and value for money, results focus, performance, accountability and transparency, gender and environmental considerations, and research excellence.

Based on these assessments, core funding was initially allocated to three research centres, representing an increase in levels of funding to these centres:

- CABI
- World Vegetable Center (AVRDC)
- International Centre of Insect Physiology and Ecology (*icipe*).

Funding of another centre, the Global Forum on Agricultural Research (GFAR), was also continued, but at a reduced level.³⁸

During 2012, based on an additional value for money assessment, using the same methodology, funding of a fifth centre commenced:

- International Centre for Integrated Mountain Development (ICIMOD)

In November 2012, additional funding of £10m was made to two centres, CABI and *icipe*, taking the total programme from £30m to £40m. This additional funding was made in response to the inaugural performance review, which had demonstrated evidence of excellent research quality with development impact and value for money for DFID. These centres also showed that they could scale up their work to meet strong Ministerial interest in the use of science and innovation in tackling poverty and in new forms of partnership with the private sector to deliver development outcomes.

The Performance Funding Mechanism

A key feature of the programme is a commitment to multi-year funding, as well as to an increased level of DFID funding to most centres. This phase of support represented a shift in approach for DFID, away from the previous funding to these centres, which involved ad hoc annual core funding allocations, with limited partnership dialogue and engagement. This had the intention of enabling centres to plan strategically and maximise use of DFID resources. Greater security of baseline funding was intended to enable centres to maximise and commit staff resource and map out individual and programme budgeted work plans over a longer timespan than would otherwise have been possible.

The performance funding mechanism involves the following features:

- Multi-year funding: to enable improved planning of resources by centres, resulting prospectively in more effective use of DFID resources.
- Performance related element: scaling up funding to high performing centres. Funding to comprise a guaranteed minimum core contribution plus an additional scalable element. The additional element will be allocated on the basis of performance against 3–5 high-level deliverables for each centre.
- Value for Money: based on a systematic approach to assessing value for money and organisational behaviours across each centre. Funding would be linked to specific conditions related to organisational behaviour (including gender responsive organisations, climate-smart behaviour, and results focus) and maximising delivery and influence.
- Strategic: it would enable DFID to use our funding to leverage results and to direct additional resources to emerging DFID research priorities.

The implicit Theory of Change in implementing this new approach has been that longer-term funding, a tighter set of agreed deliverables, a mechanism for regular dialogue and partnership, and a performance bonus will improve performance of the individual centres in specified areas, and lead to results more closely aligned to DFID priorities.

³⁸ An early decision was taken not to continue funding one centre, Crops for the Future (CFF), formerly the International Centre for Underutilised Crops (ICUC). For this reason we consider this centre not to be amongst those falling within the scope of this evaluation. However, funding was phased out, allowing CFF time to seek other donors, so it did receive 0.75% of the total programme budget.

Examples of key objectives and the main good governance measures

- new improved vegetables lines with good nutritional and/or disease resistant properties.
- roll out of new national plant health systems in 30 countries.
- scaling up of “push-pull” control of striga in cereals in Africa.
- an integrated pest management technology for control of African fruit fly.
- mechanisms for tracking investments in AR4D and for building user feedback into international agricultural research systems.
- robust financial systems.
- planning and implementing gender mainstreaming across the Centre (including HR policy and practice to achieve gender balance in organisational structures and research processes and generation of gender analytical outputs).
- an environmental management system with targets for reducing carbon footprint, metrics on energy use.
- research uptake strategies.
- monitoring systems.
- use of impact evaluation.

Within this programme, DFID’s Agriculture Research team have adopted a distinctive approach to performance reviews. Each centre is assessed annually against 3 or 4 key objectives (which they identified) and organisational behaviours (see Box above). The centres write a performance review report which is followed by a presentation to and questioning from the performance review team of DFID staff supported by peer reviewers. The review team then share their findings and produce agreed assessments. Centres have the opportunity to respond formally to each review.

This process has been introduced and is specifically designed to monitor and drive up performance and, hence, value for money. It incorporates an incentive of a 20% performance bonus awarded to those demonstrating sufficiently good performance.

The first performance review of four centres was held in July 2012 and the second performance review of these centres plus ICIMOD was completed in mid-2013.

This novel approach to programme management, i.e. an annual performance review of each centre coupled with an annual review of the programme, together with periodic external reviews of the organisations commissioned by their Boards, means that a large volume of programme documentation has already been collated and will be available to the evaluation team from the outset. It may also be – a hypothesis – that the rigour of assessment and quality of DFID documentation is enhanced because a decision on the bonus is a mandatory output of each review.

In the judgement of the DFID staff carrying out the latest annual review of the programme, the new approach to multi-year performance management funding is working effectively. However, there is explicit recognition that this “needs to be assessed independently of DFID” within this external evaluation.

3. Objectives, Scope and Evaluation Questions

3.1 Objectives

The evaluation has two main objectives:

1. To assess the effectiveness of DFID's Performance Management Funding Mechanism in delivering high quality research, delivery of results and value for money.
2. To make recommendations to DFID's Research and Evidence Division on performance management funding of research, including metrics.

DFID funding is the focus of these objectives, but it is important to recognise that DFID is one of several funders of each of these centres and does not fund specific areas of work or projects.

3.2 Scope

The scope of this evaluation covers the period of funding from October 2011 to May 2014.

3.3 Evaluation Questions

The primary evaluation questions are:

- A. Do DFID and each of the centres share an understanding (implicit Theory of Change) of the aims, operation and expected effects of the multi-year performance funding mechanism?
- B. What has been the response of the centres and the reaction of other donors and stakeholders and, in their judgement, how effective to date is this mechanism proving to be?
- C. What is the evaluators' (independent, evidence-based) assessment of the intended and unintended, positive and negative effects of the funding mechanism? How can it be made more effective? The assessment should cover both delivery of the centres against their core research deliverables as set out in the agreement with DFID, as well as the cross-cutting issues of gender, environmental management systems and value for money.
- D. To what extent has this funding mechanism delivered or improved the quality of research outputs, with particular regard to deployment of technologies and robust measurement of impact, in relation to more conventional funding mechanisms (both project funding and core unrestricted funding)?
- E. What are the lessons from this experience of performance management funding of research, and on performance metrics, which could be of relevance within DFID Agricultural research and DFID research more widely?
- F. What progress, if any, have the centres made towards demonstrating their outcomes and ultimate impacts through improved documentation, internal studies and commissioned evaluations?
- G. What evidence (selective but robust) of achieved or prospective development impacts (or lack thereof) has been generated through this evaluation?

Note that while the logframe outcome and impact (singular) are within the scope of these questions, the evaluation will range across outcomes and impacts (plural, including unintended and generic).

3.4 Users and audience of evaluation

It is envisaged that the immediate and main users of the evaluation are DFID's Agriculture Research team, and other parts of DFID's Research and Evidence Division. It is also expected that it will be of

value to the international agricultural research centres themselves, and will have relevance to discussions within the CGIAR system on value for money.

It is anticipated that the findings of the study will feed into discussions by the Agriculture Research team on future performance funding to international agricultural research, as well as research funding more broadly in DFID. It is expected that the findings of the evaluation will also be of wider interest to other donors and funders of research.

4. Methodology

Tenderers should spell out as fully as possible the evaluation design and methodology they propose to use, the allied potential risks and challenges for the evaluation and how these will be managed. DFID has not endorsed particular methodology(ies) for the conduct of this research programme evaluation, but in this case would expect a design that takes a multiple methods approach and systematically triangulates evidence. Therefore, while we suggest some options below, tenderers are invited to propose an approach and methods that they believe will most effectively and efficiently meet the purposes of the study within the time available. The successful tenderer will then refine this proposal within the first month or so of the contract, in consultation with DFID and other relevant stakeholders. Please note that we are committed to quality and rigour in line with international good practice in evaluation.

Theories of Change (ToC), both overall for this DFID programme funding and for each centre, are currently implicit within the extensive documentation. During the inception phase we should like the evaluation team to develop a straightforward ToC (diagram and narrative) *specifically for the multi-year performance funding mechanism (i.e. the package of support should include multi-year core funding, performance funding built around core centre deliverables and cross-cutting issues)*. We do not require full ToC for the programme and centres, though tenderers may propose to incorporate ToC work into their study as they see fit.

We anticipate that there will be one or more comparative element(s) to the evaluation, potentially in respect of DFID support for these centres prior to the introduction of the performance management system, concurrent experience of other donors operating more traditional funding models and/or experience at other research centres.

The methods and assessment frameworks employed for this evaluation should facilitate the collection and analysis of data, be relevant to the questions outlined above, and make optimal use of existing data. The evaluation may need primarily to use retrospective evaluation methodology techniques, although some baseline data does exist in previous reviews. Particular attention should be paid to documenting both quantitative and qualitative progress on the areas identified. Should robust evidence emerge of changes resulting from DFID's recent engagement with these centres, the evaluation team will need to tackle the further challenge of assessing the extent to which these are due to the performance management mechanism as a whole, and/or simply reactions to increased, longer-term funding.

Sources that will be used in the evaluation would, at a minimum, include:

- *Document review:* Review of key documents including those outlined in Section 2. A table of key programme and project documents will be prepared for the evaluation team by DFID and the international centres, with further assistance available, if required.
- *Interviews with key partners and users:* Interviews with each of the research centres. Also interviews with other funders, Board members and stakeholders including end users and close collaborators may be considered. These interviews may be done in person if feasible, but most likely by telephone or internet-based communication.

- *Interviews with DFID staff and peer reviewers:* interviews with the DFID staff involved in overseeing the funding mechanism, and those involved in the annual performance reviews including Senior Research Fellows.
- *Visits to centres and field:* Face-to-face meetings should be held with a minimum of three out of five research centres.
- *Surveys or other data collection methods:* to solicit input from additional stakeholders external to DFID. If surveys are used, these should be rigorously designed with appropriate sampling methods and expectation of acceptably high response rates. Alternative or complementary approaches, such as online discussion fora, could be considered.
- *For VfM assessment,* data should primarily be drawn from the administrative reporting systems of the centres. Comparisons could be made with other similar programmes such as centres of the CGIAR and research programme consortia including Future Agricultures Consortium, International Growth Centre or Leveraging Agriculture for Nutrition in South Asia (LANSA).

Tenderers may wish to make use of the following online resource, though (to re-iterate) we are seeking a rigorous approach without preconception of the detailed methodology:

<http://www.ukcds.org.uk/resources/evaluating-the-impact-of-research-programmes>

The evaluation should ensure that it adheres to the ethical evaluation policies of DFID and the evaluation principles of accuracy and credibility.

5. Timetable and Milestones

Please propose a detailed timetable, having regard to the following:

Primary Activity	Deadline
Evaluators selected and contracts put in place.	September 2014
<u>Inception Report Submitted to Management Group</u> Approach should be finalised in consultation with DFID. This inception report should include a Theory of Change, suggestions on refinements/amendments of the evaluation questions, the full methodology, implications for the degree to which the evaluation questions can be answered using a credible and robust evidence base, assessment frameworks, identified sources of data and risk management strategy. Plus a communications plan for the evaluation.	By 10 October 2014
Management Group provide feedback and approval.	By 17 October 2014
Data collection and analysis	To be started by mid-October 2014
Draft Final report submitted for comment. Report should include (though not necessarily in precisely this structure): 1. Cover page. 2. Table of Contents. 3. Executive Summary: maximum four pages. 4. Purpose of Evaluation. 5. Evaluation approach and methodology. 6. Response to evaluation questions with supporting evidence. 7. General findings, key messages and potential implications. 8. Annexes – additional supporting evidence as relevant; detailed methodology.	Mid-February 2015
Single presentation to Management Group (and others) to discuss draft findings	February 2015
<u>Final Report</u> Final report should take into account comments on the draft report from DFID	End of February 2015

6. Evaluation Outputs

The Evaluation Team will produce the following outputs:

- Inception Report including refinements/amendments of evaluation questions, full methodology, Theory of Change, assessment of which evaluation questions can be answered using a credible and robust evidence base, identified sources of data and risk management strategy, and a communications plan.
- Draft Final Report
- Presentation to Agriculture Research team and others
- Final report for publication including Executive Summary that incorporates feedback obtained on the draft report
- Appendices with details on the methodology, informants, etc.
- A “policy brief” summarising the main findings of the evaluation for circulation to stakeholders.

Please note that the inception report and/or the final report may, at DFID discretion, be forwarded for external quality assurance / peer review (which generally takes 10 working days). However, we expect not to apply this to the inception report unless unanticipated key issues arise during this phase.

7. Evaluation Management Arrangements

The evaluation will be overseen by a Management Group. This group will be responsible for approving the evaluation outputs and commenting on draft reports.

The Group will include the following DFID staff:

- Alasdair Swift (lead contact), Rachel Lambert, Andrew Shaw

The team will also provide the link between the evaluation team and the Centres themselves, and coordinating information inputs from DFID.

Liaison between the Management Group and the evaluation team will include up to three meetings and two presentations by the evaluators (one to present and discuss the inception report/evaluation plan; and a second for the draft report). These meetings will take place in London or East Kilbride, and may involve teleconferencing or video conferencing.

8. Documentation

Annex 1. Business Case

Annex 2. Logframe

Annex 3. 2011 Annual Review.

Annex 4. 2012 Annual Review.

Annex 2: Data Collection Tools

SEMI-STRUCTURED INTERVIEW GUIDE (Category 1 Key Informants: Research Centre Staff)

Meeting No. 1: Theory of Change and quality of funding

Participants: Relevant research centre staff, e.g. senior managerial and administrative staff (including responsible for M&E) of the Centre, evaluation team.

Expected duration of the meeting: max. 1.5 hours

Meeting development (subject to adjustments according to context and circumstances):

- A. Centre's Director: (i) words of welcome addressed to the evaluation team, (ii) brief introduction of Centre's profile and activities, (iii) introduction of the participants.
- B. Evaluation Team: briefing on scope and purpose of the evaluation mission and illustration of the specific objective of the meeting. Before tackling the core issues of the meeting (i.e. Theory of Change, relevance of the PMFM approach with respect to the specific context of the Centre) the participants could be asked the following general questions:
 - Could you please briefly tell us your history in the research centre? (Prompts: duration and role in the organisation, engagement with DFID and other donors)
 - What is your understanding of the purpose and goals of DFID's PMFM?
 - How did you arrive at this understanding? (Prompts: Was there any dialogue with DFID regarding the PMFM? If yes, how clear/fluid/participated was it? Did you have any margin of negotiation about the modalities/conditionalities of the funding mechanism? Is there any documentation about this dialogue?)

Interview questions

1. Can you please tell us what your understanding is of the PMFM's rationale and how it intends to achieve the changes it envisaged? How did this understanding come about? (Prompts: Discussions or dialogues with DFID staff? How often and extensive? Documentation?)
2. Which are the main exogenous factors affecting the centre's capacity to generate the expected outputs/outcomes/impacts?
3. Which internal factors may affect (or actually affect) the implementation of the pathway of change, as illustrated in the draft Theory of Change?
4. In addition to financial support, are there other forms of engagement by DFID that you find impact on your operations and outputs and their quality? Please give examples.
5. Are there any specific "qualities" of your centre (e.g. management style, application of a gender policy, adoption of environmental sustainability criteria, research objectives, incidence capacity on policy makers, structured institutional links favouring the out-scaling of the research outputs, etc.) that were already consistent with DFID PMFM requirements before its introduction? What activities were introduced or improved along the process?
6. What has been the response of the centre as a consequence of the implementation of the DFID PMFM? (Prompts: what changes in mid- and long-term planning? Staffing, including recruitment? Incentives structure?)

7. What are the key determinants of performance in your research centre? (Prompts: staff profile, including size? Management structure? Investors/funding partners? Donor profile and conditionalities?)
8. What has been the reaction of other donors and stakeholders (if aware of)? (Prompts: which donors and group of stakeholders?)
9. What is the overall financial weight of DFID funding relative to other funding sources? Which of these sources are most influential on centre's performance (output/outcome delivery capacity)? What type of funding mechanism do they adopt? What do you think of the combination of the other funding sources/mechanisms with DFID's PMFM? Is it beneficial or not? What are the advantages and disadvantages? Does it make any difference to your delivery of outputs?

Meeting No. 2: Value for Money Analysis

Participants: Relevant research centre staff, e.g. senior managerial and administrative staff (including responsible for M&E) of the centre, evaluation team

Expected duration of the meeting: max. 2 hours

Meeting development (subject to adjustments according to context and circumstances):

- A. Centre's Director: words of welcome and introduction of the participants.
- B. Evaluation Team: presentation of the objective of the meeting and concise briefing on the concept of "Value for Money Analysis" (purpose, scope and method).

Interview Questions

1. Did the guaranteed core funding of the PMFM affect the centre's transaction costs? Can you quantify the change in hours of labour or costs?
2. Has it increased or decreased reporting requirements? How? Examples? Can you quantify the change in hours of labour or costs?
3. Has it increased or decreased fundraising? How? Can you quantify the change in hours of labour or costs?
4. How has your interaction with the donor changed? Why and how? Is the change positive or negative? How? Can you quantify the change in hours of labour or costs?
5. How has the change in the level of interaction with DFID affected time and resource use in the centre?
6. What is the overall staff opinion of the positive benefits of the PMFM core funding approach?
7. What are the negatives or challenges to the PMFM core funding approach?
8. What questions does the PMFM funding approach raise for the centre?
9. Have you and other staff discussed possible changes or improvements to the PMFM approach? What are suggested improvements?
10. Has the guaranteed core funding enabled completion of unfinished work?
 - If so, identify/list the research lines and the current state of the research.
 - Please identify the research lines and what was done before and after the core funding was received.
11. How is the newly finished work attributable specifically to the core funding?
12. Did the core funding play a role in increasing the efficiency of research? How?
13. How has the core funding influenced or changed the dialogue with DFID?
 - Is there more or less dialogue with the donor than in the past?
 - Has the content of the dialogue changed? How?
 - What is positive about the current level and content of dialogue with the donor?
 - What is less positive or negative about the current level and content of dialogue with the donor?
14. How has financial planning and reporting changed as a result of the PMFM core funding?
 - Is the change a strength or weakness?
15. Is it possible to easily identify what specific research activities were funded through the PMFM mechanism?
 - If yes, how is that reported?
 - If not, what are the reasons to continue the PMFM funding mechanism?
16. How has the core funding affected research planning?
17. How has core funding affected human resources planning?
18. Has the performance incentive led to increased completion of high-level priorities?

19. What are the positive and negative effects of identifying and linking high-level research priorities to the PMFM?
20. How has the performance incentive worked in the centre?
21. To what degree has the incentive influenced research completion?
22. What % of total research budget or each centre is DFID funding?
23. In your experience, does the performance bonus actually generate an increase in completed research?
 - Please provide some specific examples.
 - Specifically, how has striving to attain a performance bonus been positive?
 - Negative?
24. What new strategies has the centre developed to increase end-user uptake of research?
25. How has the centre used the new strategies to increase end-user uptake of completed research?
26. Specifically, how does the centre bring research to markets or to end users?
27. Specifically how does the centre engage the private sector in research uptake?
28. What are the established relationships between the centre and the private sector? Please identify.
29. How has core funding through PMFM changed centre strategy to translate research to end-user benefit? If it has, provide examples.
30. What is the centre's strategy (if any) to avoid any gender-based discrimination in translating research to end-user benefit?
31. Is there a difference between how DFID research priorities are translated to end-user benefit, and other centre research?
 - Provide examples, please.
32. Do you see a change in gender equity among staff since the introduction of the PMFM?
 - Have those changes resulted from PMFM and DFID funding, or because of other reasons? Please elaborate. Ask for data/statistics.
33. Has there been a change in the target end-user to increase the availability of research to women as a result of PMFM funding?
 - Please elaborate.
34. How has PMFM centre funding streamlined centre processes or research to reduce water use, carbon footprint, and other factors that address climatological factors?

Meeting No. 3 – Impact and sustainability

Participants: Senior managerial and administrative staff (including responsible for M&E) of the Centre, evaluation team

Expected duration of the meeting: max. 2 hours

Meetings 1 and 3 can be joined according to time and centre's staff availability

Meeting development (subject to adjustments according to context and circumstances):

1. Centre's Director: (i) words of welcome and introduction of the participants.
2. Evaluation Team: presentation of the objective of the meeting and concise briefing on the comparative analysis and the "shift-back option". It will be also important to stress that reference will be made during the meeting to the Draft Theory of Change presented and discussed during the first meeting.
3. The following general questions on **input generation** could help facilitate the discussion and respond to both the main questions and sub-questions:

Interview questions:

1. What progress, if any, has the centre made towards demonstrating/disseminating their outcomes and ultimate impacts through improved documentation, internal studies and commissioned evaluations?
2. What evidence of achieved or prospective development impacts (or lack thereof) has been generated through these studies/evaluations? How can the effectiveness of the dissemination activity be measured?
3. Are the centre's dissemination activities actually giving visibility to DFID and its funding mechanism?
4. What studies and/or evaluations have been carried out by the centre in past years? Would you have undertaken and funded them without DFID's funding? Were any of them related to the adoption of gender equality criteria (Centre's gender policy) and sustainable environmental management systems (Centre's environmental policy)? If not, is there a study/evaluation related to this in the pipeline? If already done, who carried it out? Internal or independent evaluators?
5. What intended and/or unintended, positive and/or negative impacts have been brought about so far by the implementation of the PMFM? Why and how?
6. Has this progress (if any) been directly or indirectly influenced by the implementation of the PMFM?

Comparative analysis

7. Can a cause-effect relation between PMFM and documented impacts be set out and addressed?
8. According to the postulated ToC, may any rival/alternative explanation to the observed impacts be formulated?
9. Which are the main strengths and weaknesses linking causes and impacts in the postulated ToC, with specific reference to the implementation of the PMFM?
10. To what extent is it possible to assess the claimed contribution of the PMFM to the documented impacts and set out a "contribution story"?
11. What possible additional evidence is needed to enhance the credibility of the contribution of PMFM to the documented impacts? Is there any complementary evidence that can be gathered?
12. On the basis of the answers to the questions above, does the proposed ToC need any adjustment (revise and strengthen the contribution story)?

Counterfactual analysis (shift-back option)

13. How does the PMFM influence the strategic planning / work planning (towards impacts generation and measurement/documentation) of the centres and what would happen if the PMFM was not introduced?
14. Did the PMFM positively or negatively impact on the use of the centre's human and financial resources? What would change in staff management if the PMFM was not introduced?

Focus group

Participants: centre's managerial staff, researchers, staff in charge of communication and public relation. Other stakeholders (e.g. Ministry of Agriculture, Extension Service, farmers' associations, NGOs, etc.), evaluation team.

Expected duration of the focus group meeting: max. 2 hours

Focus group development (subject to adjustments according to context and circumstances):

1. Centre's representative staff: (i) words of welcome and introduction of the participants.
2. Evaluation Team: presentation of the objective of the focus group and concise briefing on the importance of stakeholders' participation all along the research cycle management, from the identification of priority research issues to dissemination and scale-out of results.
3. The following questions could help facilitate the discussion:
 - a. Could you please tell us when, where and how many times you have been involved by the centre in open consultations (public meetings, events, fora, virtual environments, etc.) for participating in the identification of research priorities, action planning, quality evaluation, dissemination of results, etc.
 - b. During these dialogue opportunities (if any), have you been made aware of the funding mechanisms (DFID PMFM in particular) and "conditionalities" actually supporting/affecting the research activity?
 - c. In any consultation event in the past, has the "research funding mechanism" been a key issue in the agenda? Have the stakeholders been ever involved in an open discussion about the funding mechanisms of the research?
 - d. Could you tell us some real story about the effectiveness of the dialogue (or lack thereof) in, for example, identifying the most appropriate research priority, re-orientating a research activity, improving the dissemination of specific results, or influencing the donors' funding mechanisms?
 - e. Could you indicate some example of intended and/or unintended, positive and/or negative side impacts brought about so far by the implementation of the PMFM and why?
 - f. How would you like to see the research funding mechanism improved?
 - g. Are you happy with the dialogue opportunities made available by the centre? Are they sufficient, adequate, useful, productive, effective, etc.?
 - h. Any suggestions on how to improve the stakeholders' dialogue (centre – donor – institutional partners – civil society – end users)?

Questionnaire for “Other donors” to the five research centres being evaluated

Your name:

Organisation:

Donor mechanism which you represent:

The five “research centres” being evaluated are: AVRDC, CABI, GFAR, *icipe*, ICIMOD. **Please complete a separate questionnaire for each of the centres that your organisation supports.**

The main question targeting information about “Other donors” i.e. non-DFID support is:

“What has been the reaction of other donors to DFID’s Performance Management Funding Mechanism (PMFM) and, in their judgement, how effective to date is this mechanism proving to be?”

This main question has been broken down into 6 sub-questions:

1. Are you aware of the DFID funding mechanism (PMFM) that is currently applied in the centres where DFID is one of the co-funders? (answer below with x over the ○)
Yes ○
No ○
If yes, how did you learn about the PMFM?
2. According to your experience/knowledge/understanding, has the DFID PMFM created any kind of conflict with the funding mechanism with which you are connected (e.g. financial conditionality, reporting, auditing) or any other problem that may affect the efficiency, effectiveness, impact or quality of the Centres’ output and outcome? (answer below with x over the ○)
Yes ○
No ○
If so, in what way? Please explain.
3. Is there any coordination agreement between DFID and other donors in terms of funding system? E.g. is there any funding harmonisation protocol or plan to create one? (answer below with x over the ○)
Yes ○
No ○
If so, in what way? Please explain how the agreement works.
4. Please explain what is your perception of positive or negative impacts generated by the DFID PMFM?
5. Do you consider that the DFID PMFM to be “good practice”? (answer below with x over the ○)
Yes ○
No ○
If so, in what way? Please explain why you consider the PMFM to be good practice.
6. Is it possible to envisage a donor alignment? (answer below with x over the ○)
Yes ○
No ○
If so, please explain a possible way forward.

Annex 3: Programme Logframe

PROJECT TITLE: Support to international Agricultural Research that benefits poor people						Assumptions	
IMPACT	Indicator	Baseline 2011	Milestone 1	Milestone 2	Target + 2014		
Agricultural investments leverage reductions in poverty and undernutrition	Agricultural productivity in developing countries	Cereal productivity in Africa stagnant around 1t/ha (West Africa, 1.13 t/ha; East Africa 1.14 t/ha; Central Africa 0.93 t/ha) Annual growth rates 1-2% with 2.3%-2.8% population growth p.a.					
		Source					
		ReSAKKS 2010 (Benin et al, 2010 Outlook) FAOstat ISPC impact assessments					
	Indicator	Baseline (2011)	Milestone 1	Milestone 2	Target + 2014		
	Child nutrition Status	a)43-59%					
		b) 9-20%					
		c) 31-43%					
		Source					
	UNICEF and WHO regional and country data DHS surveys Regional MDG indicators to 2015						

OUTCOME	Indicator	Baseline (2011)	Milestone 1	Milestone 2	Target + 2014	Assumptions
New technologies, products and knowledge to address agricultural yield gaps, hunger and malnutrition developed and put into use.	a) New technologies, products, knowledge developed; b) Technologies, products and knowledge which deliver significant improvements to productivity, incomes, nutrition and/or livelihoods scaled up.	a) 0 b) 0	Centres on track with achievement of agreed milestones and deliverables.	Centres on track with achievement of agreed milestones and deliverables.	<u>All Centres on track with agreed deliverables:</u> New improved vegetables lines providing enhanced human nutrition and pest resistance; Grafting technology for tomato and chills providing flood and disease tolerance tested for scale up; Roll out of plant health systems in 30 countries, reaching 2 million farmers by 2014. Launch of Knowledge Bank providing open access to information on 2500 pests.	Increase in investments in agriculture at national, regional and international levels. Adoption of new technologies and more relevant policies leads to improvements in agricultural productivity and reduce poverty and improve nutritional status. Policies (markets, trade, land etc) are conducive to increased agricultural development.

					Scaling up of push pull control in striga and IPM for control of African fruit fly.	
		Source				
		External Programme Management Reviews of Centres				
		DFID-centre annual meetings				
		Annual Reports				
	Indicator	Baseline (2011)	Milestone 1	Milestone 2	Target + 2014	
	Robust systems for ex-post impact assessment.	Variable systems for M and E and ex-post impact assessment. Few examples from the 3 research centres that demonstrate robust, publishable, ex-post impact assessments.	At least 1 robust ex-post impact assessment per centre.	At least 1 robust ex-post impact assessment per centre. External evaluation of GFAR.	At least 1 robust ex-post impact assessment per centre per year demonstrating impacts on productivity, incomes, nutrition or livelihoods; at least 3 ready for publication External evaluation of ICIPE's capacity development work; External evaluation of Plantwise by 2014.	
		Source				
		External Independent impact assessments				

		Annual reports of centres. Annual review meetings between DFID and centres.				
INPUTS (£)	DFID (£)	Govt (£)	Other (£)	Total (£)	DFID SHARE (%)	
INPUTS (HR)	DFID (FTEs)					

OUTPUT 1	Indicator	Baseline (2011)	Milestone 1 (2012)	Milestone (2013)	Target (2014)	Assumptions	
Centres generating high quality research outputs.	Centres on track with agreed deliverables.	Agreed a set of 3-4 deliverables with each centre for annual monitoring, with associated annual milestones, which is part of the MoU with the centre.	Centres on track to meet deliverables;	Centres on track to meet deliverables.	Agreed deliverables set out in MoUs fully met by each centre.	Centres' strategic plans and priorities reflect global challenges facing poor people in relation to tackling hunger and malnutrition, and sustainable intensification of agriculture.	
		Source					Centres selected for scaled up funding continue to generate high quality research of direct relevance to poor people.
		Annual meetings of each centre with DFID					
	Indicator	Baseline 2010	Milestone 2011	Milestone 2012	Target 2013		
	Research Publications including the number in peer reviewed journals	AVRDC -186 (40 peer reviewed journals) CABI – 362 (122	Centres track publications including peer reviewed journals	Centres track publications including peer reviewed journals	Ratio of peer reviewed publications to total publications		

		peer reviewed journals) ICIPE – 70 -100 peer reviewed journals per year GFAR N/a	and assess whether internal incentives with regard to publications are appropriate.	and assess whether internal incentives with regard to publications are appropriate.	is stable or increases. (<i>setting an absolute target would not be meaningful, as number of articles will depend on the stage of the research cycle.</i>)	
		Source				
		Centre monitoring systems Annual meetings of each centre with DFID				
IMPACT WEIGHTING	Indicator	Baseline (2011)	Milestone (2012)	Milestone (2013)	Target (2014)	
	High quality case studies made available for publication demonstrating impacts at scale, and responding to issues of climate adaptation, empowerment of women, food and nutrition security.	AVRDC: 1 (mungbean) CABI: 3 (Plant Health Clinics in Bolivia, Good Seed Initiative, army worms in Africa) ICIPE: 3 (malaria IVM, capacity building, push pull in striga)	At least 1 case study per research centre published on R4D and centre website	At least 1 case study per research centre published on R4D and centre website	Total of 6 published case studies on R4D and other websites	
		Source				RISK RATING
		Centre generated case studies, based on robust evidence and citing research origins of the work as well as impact				Low
	Research outputs with specific focus on women's empowerment and gender analysis generated and	Centres have v few research outputs which specifically	At least one research output per centre which demonstrates	At least two outputs per centre.	At least two outputs per centre.	

	widely disseminated.	address gender dimensions.	gender dimensions.	At least one peer reviewed publication/centre. published.	At least one peer reviewed publication per centre.
		Centre generated publications Centre annual meeting with DFID			
INPUTS (£)	DFID (£)	Govt (£)	Other (£)	Total (£)	DFID SHARE (%)
INPUTS (HR)	DFID (FTEs)				

OUTPUT 2	Indicator	Baseline + year	Milestone 1	Milestone 2	Target + year	Assumptions
Organisational behaviours which underpin effectiveness and value for money for DFID are strengthened.	Robust financial systems and sources measured by: a)Indirect/direct cost ratio b)Audit opinion c)DFID costs as % of total funds	a) CABI – 0.52 ICIPE – 0.29 AVRDC – 0.23 GFAR – ?	All centres meet their internal targets for managing cost ratios	All centres meet their internal targets for managing cost ratios	All centres meet their internal targets for managing cost ratios	Robust organisational systems and procedures enable research centres to work effectively, deliver value for money, and meet their strategic objectives and goals.
		b) Clear audit statements C) CABI – 4% ICIPE – 6% AVRDC – 4% GFAR – 11%	External auditors confirm that the financial statements present fairly the financial position of the Centre. Any issues flagged by the auditor have been addressed by the next financial statement DFID costs as % of total costs no more than 40%	External auditors confirm that the financial statements present fairly the financial position of the Centre. Any issues flagged by the auditor have been addressed by the next financial statement DFID costs as % of total costs no more than 40%	External auditors confirm that the financial statements present fairly the financial position of the Centre. Any issues flagged by the auditor have been addressed by the next financial statement DFID costs as % of total costs no more than 40%	
		Source				
		a) This ratio seeks to measure how much research program activity a Center is able to support on its institutional cost base. This indicator is computed and audited as the ratio of indirect costs to direct costs (indirect costs divided by direct costs) expressed as a percentage. b) The external auditor's opinion on the Center's financial statements indicates whether the Center's financial accounting and reporting processes meet required standards. Depending on the nature of any qualification made, it may indicate financial “going concern” issues, the ability of the Center to account of its financial				

		or physical assets, or the appropriateness of computations and estimates used in preparing the financial statements. Although an unqualified opinion does not provide absolute assurance about the reliability of the financial statements, a qualified opinion indicates an increase in the risk that the statements do not fairly present the true financial picture of the Center. c) the ratio of DFID costs to total costs gives us an indicator of how dependent a centre is on DFID, and how diversified its funding source. However, we note that these figures can vary considerably year to year, and so 40% is set out as an indicative threshold and basis for discussion, rather than an absolute figure over which we should not go.			
	Indicator	Baseline 2011	Milestone 2012	Milestone 2013	Target 2014
	A clear plan and strategy (Environmental management system or EMS) in place that incorporates: - specific targets for reducing the carbon footprint and wider environmental impact - metrics on energy use, waste, travel and transport - Processes for regular reporting to the Senior Management team	AVRDC: no plan and strategy in place; although recent initiatives to reduce energy consumption. CABI: environmental mgt system in place in operations; monitoring and feedback mechanisms not systematic ICIPE: policies in place; wide range of efficiency measures; systematic monitoring mechanisms can be strengthened GFAR: no system in place	Plans in place for all centres.	Full implementation of plans. Annual metrics reported and analysed in all centres. Starting to demonstrate results.	All centres demonstrating that they are meeting at least 75% of EMS targets.

		Source				
		Annual meetings; centre data				
IMPACT WEIGHTING	Indicator	Baseline	Milestone 1	Milestone 2	Target (date)	
	HR policy and operational plans for ensuring gender balance in organisational structures and research processes implemented.	CABI – Code of Conduct and gender balance in executive staff and global networks AVRDC – strategic plan statement ICIPE – Gender Policy	Clearer Operational Guidelines on gender equality in recruitment of staff and selection of research teams drawn up by AVRDC and ICIPE	All centres reporting improved gender ratios in research teams.	a) All centres demonstrating gender-related qualitative and quantitative changes and best practices.	
		Source				RISK RATING
		Annual meetings; centre data				Low
INPUTS (£)	DFID (£)	Govt (£)	Other (£)	Total (£)	DFID SHARE (%)	
INPUTS (HR)	DFID (FTEs)					

Annex 4: Evaluation Matrix

OECD-DAC EVALUATION CRITERIA: RELEVANCE and quality of the intervention design

Evaluation Question ³⁹	Evaluation sub-questions: Information requirements and complementary questions aimed at validating/adjusting the draft “Theory of Change” analytical framework	METHODS AND DATA SOURCE		Recipient (to whom the questions are addressed)
		QUALITATIVE	QUANTITATIVE	
1. Do DFID and each of the centres share an understanding (implicit Theory of Change) of the aims, operation and expected effects of the multi-year performance funding mechanism?	To what extent do DFID and each of the centres have a common understanding of the implicit Theory of Change of the PMFM? What were the areas of divergence, if any? How did the understanding come about? Do they agree on the proposed draft Theory of Change?	Interviews	Analysis of IARCs’ documents: M&E reports, Final Reports, other evaluation documents.	Administrative and managerial staff of the IARCs DFID Staff
	Does the PMFM still respond to the identified problems? Is the identified “pathway of change” appropriate for achieving the expected outcomes/impacts?	Interviews	Analysis of IARCs’ documents: M&E reports, Final Reports, other evaluation documents.	Administrative and managerial staff of the IARCs DFID Staff
	What exogenous factors (positive, negative, synergistic) have been actually affecting (or interfering with) the IARCs/DFID action along the “pathway of change”?	Interviews	Analysis of IARCs’ documents: M&E reports, Final Reports, other evaluation documents.	Administrative and managerial staff of the IARCs DFID Staff

³⁹ Please note that the numbering of the evaluation questions in the evaluation matrix reflects the numbering in the Introduction of this report and the TOR for ease of reference and is therefore not sequential as each question is presented under the respective OECD/DAC criterion it relates to.

Evaluation Question ³⁹	Evaluation sub-questions: Information requirements and complementary questions aimed at validating/adjusting the draft “Theory of Change” analytical framework	METHODS AND DATA SOURCE		Recipient (to whom the questions are addressed)
		QUALITATIVE	QUANTITATIVE	
	Are the assumptions set out in the proposed ToC consistent with the actual existing context?	Interviews	Analysis of IARCs’ documents: M&E reports, Final Reports, other evaluation documents.	Administrative and managerial staff of the IARCs DFID Staff
	Is the logframe of the intervention coherent with the proposed ToC? What kind of amendments would be desirable?	Interviews	DFID Planning Documents IARCs Planning documents	Administrative and managerial staff of the IARCs DFID Staff
	Did the IARCs provide sufficient dialogue opportunities (fora, virtual environments, etc.) in order to give the relevant stakeholders the opportunity to participate in strategic planning as well as in the ongoing evaluation and dissemination of results?	Interviews and focus groups with stakeholders	IARCs/stakeholders meetings’ reports, M&E reports	Administrative and managerial staff of the IARCs DFID Staff
	To what extent have the cross-cutting/organisational issues (gender, environment) been included in the strategic planning documents of the IARCs and are actually monitored? If yes, to what extent was their consideration induced by the PMFM?	Interviews and focus group on gender, environment and capacity building	IARCs Planning documents, internal M&E reports, other external evaluations	All staff in the IARCs DFID Staff

OECD-DAC EVALUATION CRITERIA: **EFFICIENCY / EFFECTIVENESS**

Evaluation Questions	Evaluation sub-questions: Information requirements and complementary questions aimed at finalising the Value for Money Analysis	METHOD AND DATA SOURCE		Recipient (to whom the questions are addressed)
		QUALITATIVE	QUANTITATIVE	
	To what extent does the original VfM assessment (and its robustness) influence the overall implementation of the funding mechanism?	Interviews	Original VfM Assessment	Sr. management, researchers; responsible DFID staff
4. To what extent has this funding mechanism improved the overall efficiency of the Centres in funds administration and the quality of research outputs, with particular regard to deployment of technologies and robust measurement of impact, in relation to more conventional funding mechanisms (both project funding and core unrestricted funding)?	<u>Economy</u> – How has the guaranteed core funding of the PMFM affected the transaction costs (e.g. increased or reduced reporting requirements, annual fundraising, interaction between donor and research centre)? If so, is it possible to estimate increase or decrease in hours/GBP?	Interviews	Estimate by interviewee and internal report	Sr. management; financial management. M&E; responsible DFID staff
	<u>Effectiveness</u> : To what extent has the core funding component, the financial bonus component, and the ongoing dialogue with DFID incentivised the centres' generation of quality output and outcomes? To what extent and how exactly do these components facilitate the improvement of internal mechanisms of control on research quality?	Interviews	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents.	Sr. management; financial management. M&E
	<u>Efficiency</u> – How has the change in the level of interaction between DFID and the research centres affected time and resource use of the centres? Have there been other advantages or disadvantages of increased interaction?	Interviews	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents.	Sr. management; financial management. M&E
	<u>Efficiency</u> – Has there been any discussion of the	Interviews, anecdotal	Analysis of IARCs'	Sr. management,

Evaluation Questions	Evaluation sub-questions: Information requirements and complementary questions aimed at finalising the Value for Money Analysis	METHOD AND DATA SOURCE		Recipient (to whom the questions are addressed)
		QUALITATIVE	QUANTITATIVE	
	PMFM approach amongst centre (or DFID) staff and what positives, questions, or suggestions for improvement have been raised, to date?	evidence	documents: M&E reports, DFID Annual Reviews, Final Reports, other evaluation documents.	researchers; responsible DFID staff
	<u>Efficiency</u> – How has the guaranteed core funding through PMFM changed the research priorities and strategy of the research centres? Has core funding enabled or added leverage to research that has been desired but delayed due to funding uncertainty? How are these changes attributable to DFID funding?	Interviews	Analysis of IARCs' documents: M&E reports, DFID Annual Reviews Final Reports, other evaluation documents, financial management	Sr. management, researchers, financial management
	How has financial planning, reporting, and accounting changed when using funds granted through PMFM?	Interviews	Analysis of IARCs' documents: M&E reports, DFID Annual Reviews Final Reports, DFID Annual Reviews, other evaluation documents, financial management	Sr. management, researchers, financial management; responsible DFID staff
	<u>Efficiency</u> – How has the core funding mechanism (PMFM) influenced the dialogue between the centre and DFID? Is it possible to easily identify what activities were enabled by funds received through PMFM? How has core funding affected research planning? How has core funding affected HR decisions on matters related to organisational deliverables such as gender, capacity building, and	Interviews	Analysis of IARCs' documents: M&E reports, DFID Annual Reviews, Final Reports, other evaluation documents, financial management	Sr. management, researchers, financial management, responsible DFID staff

Evaluation Questions	Evaluation sub-questions: Information requirements and complementary questions aimed at finalising the Value for Money Analysis	METHOD AND DATA SOURCE		Recipient (to whom the questions are addressed)
		QUALITATIVE	QUANTITATIVE	
	environmental issues?			
3. What is the evaluators' (independent, evidence-based) assessment of the intended and unintended, positive and negative effects of the funding mechanism? How can it be made more effective?	<u>Efficiency and effectiveness</u> – How has the performance <u>incentive</u> led to increased completion of high-level priorities? What is the evidence that the incentive itself motivates stronger performance? What are the positive and negative effects of identifying and linking high-level research priorities to the PMFM? How has the performance <u>incentive</u> affected the adoption of a gender policy in HR management?	Interviews	Analysis of IARCs' documents: M&E reports, DFID Annual Reviews, Final Reports, other evaluation documents, financial management	Sr. management, researchers, financial management
	<u>Efficiency and Effectiveness</u> – How has the performance incentive worked in the centre? To what degree has the incentive influenced research completion? What % of total research budget or each centre is DFID funding? Is there evidence that the performance bonus is actually affecting performance? If so, how is the performance bonus more useful in generating results than the performance review process? Specifically, how has striving to attain a performance bonus been positive? Negative?	Interviews	Analysis of IARCs' documents: M&E reports, DFID Annual Reviews, Final Reports, other evaluation documents	Sr. management, researchers, financial management
2. What has been the response of the centres and the reaction of other donors and stakeholders and, in their judgement, how effective to date is this mechanism proving to be?	No sub-questions – primary question to be directly addressed in the evaluation.	Interviews Questionnaire Phone/Skype interview		Administrative and managerial staff of the IARCs Relevant Staff from other donors
6. What progress, if any, have the centres made towards demonstrating their outcomes and ultimate impacts through improved documentation, internal studies and commissioned	<u>Effectiveness</u> – What evidence can be cited that core funding through PMFM has enabled or influenced new or expanded strategies by research centres to promote increased end-user uptake of completed research and robust evidence of impact?	Interviews	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents	Sr. management, researchers, stakeholders (govt., NGOs, private sector, etc.)

Evaluation Questions	Evaluation sub-questions: Information requirements and complementary questions aimed at finalising the Value for Money Analysis	METHOD AND DATA SOURCE		Recipient (to whom the questions are addressed)
		QUALITATIVE	QUANTITATIVE	
evaluations?	<u>Effectiveness</u> – Identify the established channels used by the centre to bring research to end users: e.g. government, NGOs, farmer associations, private sector, etc. What strategies are embedded in the research centres to translate research into end-user value?	Interviews	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents	Sr. management, researchers
	<u>Effectiveness</u> – How is the private sector engaged in research uptake? How do the research centres strategise to engage the private sector with new research and what are the translational pathways?	Interviews	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents	Sr. management, researchers, private sector
	<u>Effectiveness</u> – How has core funding through PMFM changed centre strategy to translate research into end-user benefit? If it has, provide examples. What are the questions around the issue of translating research into end-user benefit that need further inquiry? Is there any evidence of gender-based discrimination in translating research into end-user benefit?	Interviews	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents	Sr. management, researchers, private sector
	<u>Equity</u> – How has PMFM core funding enabled greater gender equity in centre operations? In research priorities and in research analysis? In research translation to end-user benefit?	Interviews	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents	Sr. management, researchers
	<u>Equity</u> – How has PMFM centre funding streamlined centre processes or research to reduce water and energy use, carbon footprint, and other factors that address environment and climate?	Interviews	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents	Sr. management, financial management, researchers

OECD-DAC EVALUATION CRITERIA: IMPACT /SUSTAINABILITY

Evaluation Question	Evaluation sub-questions: Information requirements and complementary questions aimed at finalising the contribution/counterfactual analysis	METHODS AND DATA SOURCE		Recipient (to whom the questions are addressed)
		QUALITATIVE	QUANTITATIVE	
7. What evidence (selective but robust) of achieved or prospective development impacts (or lack thereof) has been generated through this evaluation?	<u>Preliminary sub-questions</u>			
	To what extent does the dialogue with partners and stakeholders improve the relevance of the research activity (more respondent to verified needs of target population) and consequently its impact and sustainability?	Interviews	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents.	Administrative and managerial staff of the IARCs. Representative of public or private agricultural development agencies, NGOs, etc.
	To what extent has the PMFM proved to facilitate (or encumber) the achievement of the centres' planned impacts?	Interviews	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents.	Administrative and managerial staff of the IARCs. Representative of public or private agricultural development agencies, NGOs, etc.
	What intended and/or unintended, positive and/or negative side impacts have been brought about so far by the implementation of the PMFM and why?	Interviews and focus groups (with researchers, beneficiaries, stakeholders).	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents.	Administrative and managerial staff of the IARCs Representative of public or private agricultural development agencies, NGOs, etc.
	What progress, if any, have the centres made towards demonstrating/disseminating their ultimate impacts through higher quality documentation, internal studies and commissioned evaluations? Has the achievement of these impacts (if any) been directly or indirectly influenced by the implementation of the PMFM?	Qualitative analysis of IARCs dissemination material, information campaigns, external evaluations and studies. Interviews and focus groups (with beneficiaries and stakeholders).	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents.	Administrative and managerial staff of the IARCs IARC staff responsible for communication and dissemination activities.
	Are the centres' dissemination activities actually giving visibility to DFID funding and funding	Interviews with the intended beneficiaries of		Administrative and managerial staff of the IARCs

Evaluation Question	Evaluation sub-questions: Information requirements and complementary questions aimed at finalising the contribution/counterfactual analysis	METHODS AND DATA SOURCE		Recipient (to whom the questions are addressed)
		QUALITATIVE	QUANTITATIVE	
	mechanism?	the AR4D carried by the IARCs (farmers' organisations, extension service authorities)		IARC staff responsible for communication and dissemination activities.
	<u>Comparative analysis (see Section 2.2.4, Box 1)</u>			
	Can a cause-effect relation between PMFM and documented impacts be set out and addressed?	Interviews and focus groups.	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents.	Administrative and managerial staff of the IARCs
	According to the postulated ToC, may any rival/alternative explanation to the observed impacts be formulated?	Interviews and focus groups (with researchers, beneficiaries, stakeholders).		Administrative and managerial staff of the IARCs
	Which are the main strengths and weaknesses linking causes and impacts in the postulated ToC, with specific reference to the implementation of the PMFM?	Interviews and focus groups (with researchers, beneficiaries, stakeholders).		Administrative and managerial staff of the IARCs
	To what extent is it possible to assess the claimed contribution of the PMFM to the documented impacts and set out a "contribution story"?	Interviews	Analysis of IARCs' documents: M&E reports, Final Reports, other evaluation documents.	Administrative and managerial staff of the IARCs
	What possible additional evidence is needed to enhance the credibility of the contribution of PMFM to the documented impacts? Is there any complementary evidence that can be gathered?	Interviews		Administrative and managerial staff of the IARCs DFID Staff Other International Development Agencies Staff
	On the basis of the answers to the questions above, does the proposed ToC need any adjustment (revise and strengthen the contribution story)?	Meeting		Administrative and managerial staff of the IARCs
	<u>Counterfactual analysis (see Section 2.2.4)</u>			

Evaluation Question	Evaluation sub-questions: Information requirements and complementary questions aimed at finalising the contribution/counterfactual analysis	METHODS AND DATA SOURCE		Recipient (to whom the questions are addressed)
		QUALITATIVE	QUANTITATIVE	
	<i>The “shift-back” option</i>			
	How does the PMFM influence the strategic planning / work planning (towards impacts generation and measurement/documentation) of the centres and what would happen if the PMFM was not introduced?	Interviews	Analysis of IARCs’ Planning documents and tools.	Administrative and managerial staff of the IARCs
	Did the PMFM positively or negatively impact on the use of centre’s human and financial resources? What would change in staff management if the PMFM was not introduced?	Interviews and focus group (with IARCs staff)	Analysis of any internal documentation about HR planning and management.	Administrative and managerial staff of the IARCs (in particular the HR manager)
	<i>The “comparative” option</i>			
	With reference to the expected/desired outcome/impacts , which are the main constraints/advantages of the current funding mechanism adopted by the Centres’ main donors?	Questionnaire Phone/Skype interview		Administrative and managerial staff of the IARCs (CATIE, ICRA)
	How does the current funding mechanism influence the strategic planning ability (toward outcome/impacts) of the centre and the human and financial resource management?	Questionnaire Phone/Skype interview		Administrative and managerial staff of the IARCs (CATIE, ICRA)
5. What are the lessons from this experience of performance management funding of research, and on performance metrics, which could be of relevance within DFID Agricultural research and DFID research more widely?	What change in the present funding mechanism would be desirable for a substantial improvement of both outcomes and impacts of the financial resources made available by the donors?	Interviews		Administrative and managerial staff of the IARCs
	What evidence of the sustainability of the outcomes and impact produced so far by the centres and facilitated by the PMFM has been generated through the evaluation?	Interviews	Analysis of IARCs’ documents: M&E reports, Final Reports, other evaluation documents.	Administrative and managerial staff of the IARCs
	To what extent do the centres demonstrate they are influential in policy makers’ activity	Interviews	Analysis of IARCs’ documents: M&E reports, Final Reports, other	IARCs management Representative from relevant institutions.

Evaluation Question	Evaluation sub-questions: Information requirements and complementary questions aimed at finalising the contribution/counterfactual analysis	METHODS AND DATA SOURCE		Recipient (to whom the questions are addressed)
		QUALITATIVE	QUANTITATIVE	
			evaluation documents.	
	To what extent do the different funding mechanisms from other donors enhance or inhibit the generation of the expected benefits on centres' performance? What kind of tools for donors' funding mechanism harmonisation were set up along with the PMFM and what could happen without them?	Interview	Analysis of Minutes of donors' coordination meetings. Any other documentation on donors coordination/ harmonisation	IARCs' administrative and managerial staff

Annex 5: Impact and Sustainability Summary

IARC	Core research programme	Actions toward impact and sustainability	Partnering and dialogue with policy makers
CABI	Plantwise	- More than 500 clinics in 30 countries with strong M&E plan in place. <u>External impact assessments showing positive impacts</u> with farmers getting timely, relevant advice and reducing losses. - Plantwise Knowledge Bank set up and working on a web-based platform giving access to a vast factsheet library and diagnostic tools. Over 250,000 page visits per year from 188 countries.	- CABI works on behalf of 48 member countries and operates in 21 locations. - CABI permanently works with governments and governmental institutions. - Plantwise and Mobile are both politically sensitive programmes, as they channel crucial messages to farmers - Dialogue with policy makers is permanent and structured in all the programmes' strategies.
	Mobile Agro-Advisory service	- Development centre established. Pilot countries defined in Africa and Asia. Scalable service, linked to Plantwise reaching more than 1 million farmers. Farmers are expected to be able to make better decisions which improve productivity. Strong M&E system in place. - Strategic private sector partnerships secured: e.g. India: with IKSIL (IFFCO/Airtel), Africa: Airtel in Kenya; ESOKO in Ghana.	
	Communication-dissemination>	- CABI has an intensive publishing and knowledge management activity (£11.5m gathered in 2013 through publishing activity) - Both Plantwise and Mobile programmes are essentially communication based (i.e. Knowledge Bank and Mobile advisory service) - Intensive use of farmers training (field schools and individual visits), mobile, internet and social media, video, radio and TV.	
GFAR	M&E and impact assessment of GFAR's work	- Only during 2014 GFAR developed a M&E system. - An operational plan for the M&E framework is still needed in order to ascertain whether it can reach the expected impact. The OP will provide indicators that will be the basis of an impact assessment culture.	- GFAR GAP initiative is responding to requests received directly from Ministers of Agriculture (e.g.: Nepal and Sierra Leone), to support gender-based reform of agricultural innovation programmes to be implemented by GAP partner agencies directly involved on the ground. - GFAR in partnership with the World Bank prepared the gender and nutrition background paper for the
	Improving investments for:	- In 2013 GFAR worked with Firetail Ltd to prepare a coherent Theory of Change and M&E framework for AR4D. An extensive survey of stakeholders was completed, exploring public views on the themes addressed in the GFAR Mid Term Plan. - Only for the year 2014 the employment of an M&E specialist was projected.	
	a) more effective monitoring of investments in AR4D b) enhanced feedback by end user and accountability c) initiatives to develop robust gender-sensitive analysis and tools d) strengthening gender focus in national and international AR4D programme.	- GFAR was commissioned to produce the gender and youth strategies for the CRP on Dryland Systems, now adopted into the programme. - Cross-links with CRP Policies Institutions and Markets were established, particularly in resilience, gender and foresight. - The GAP website (www.gender-gap.net) was launched and forms the direct agricultural interface of the UN Women's Knowledge Gateway on economic empowerment and providing	

IARC	Core research programme	Actions toward impact and sustainability	Partnering and dialogue with policy makers
		- knowledge support in the countries of focus of the UN programme - GFAR was invited to share the outcomes with the 50 members of the Women Country Representatives to the Rome Based UN Agencies and gender heads of the UN Agencies	2014 International Conference on Nutrition
	Communication-dissemination:	- Part of CGIAR reforms process was going from a centres' consortium model to Fund Council (or funder's forum). The GCARD (Global Conferences on AR4D organised by GFAR) ensuring the CGIAR be more responsive to the needs of the research end users. - Through GCARD, GFAR provides a forum for different stakeholders such as the private sector, farmers, extension agencies. - Nevertheless GFAR recognises that it has not invested enough on communication and dissemination. Only at the end of 2014 a communication expert/analyst was incorporated into GFAR staff.	
<i>icipe</i>	Scaling push-pull control of striga in cereals in Africa	- <u>Pathways to impact</u>: selection and optimisation of most economical and effective technology dissemination pathways were carried out in cooperation with private sector, framers organisations and NGOs. - More than 20,000 farmers have adopted the climate-smart push-pull in 18 months in Kenya, Ethiopia, Tanzania, Uganda and Somaliland. 50,000 additional farmers using stunt disease-free Napier - In addition to desmodium seed produced by seed company, two other pathways have emerged: (1) community-based seed production activities and (2) vegetative propagation through vines - For large-scale expansion <i>icipe</i> collaborates with private sector seed companies to multiply and distribute desmodium and brachiaria seeds.	- Strong partnering strategy with local, national and regional authorities, NGOs and private companies. - The Ethiopian government established demonstration sites to scale up push-pull (20,000 farmers in 2015). - Partnering for financial sustainability with international donors, governments and financial institutions.
	Scaling of Integrated Pest Management (IPM) technology for control of African fruit fly (currently operating in 8 countries)	- Households reached: Kenya 2,029 (target =1,500), Tanzania: 707 (target =600), Cameroon 5 (Target 400) - <u>Impact analysis on a sample of mango growers</u>: Reduction in insecticide use: 46.4% (Target = 15%), Reduction in mango rejection: 54.5% (Target = 45%), Net income increase: 22.4% (Target = 25%) - Expanding the implementation to other countries especially Southern and Western African countries, striving to recoup at least 50% of the current US\$ 2 billion loss due to fruit flies by up-scaling technologies to several African countries.	- Relevant Strategic private partners in production and commercialization of bio pesticides and bio fertilizers in Africa and seed production in Asia.
	Communication-dissemination:	- All scaling activities are supported by extensionists and farmers field training, video and radio dissemination campaigns, print media in different languages (in partnership with local and national authorities, NGOs and private enterprises). E.g. (1) Push-pull programme (only): 80 scientific publications in peer-reviewed journals, 5 books, 12 guides and manuals in different languages, 3,000 extension staff from National Agricultural Research Institutions (NARs) and NGO trained per year. (2) IPM, 32 articles in peer-reviewed journals; 61,000 manuals, leaflets, poster distributed. Graduate students and postdocs: MSc: 69 (45% women), PhD: 65 (40% women): Postdocs: 17(47% women)	- Research partners all across Africa.

IARC	Core research programme	Actions toward impact and sustainability	Partnering and dialogue with policy makers
AVRDC	New improved vegetable lines with good nutritional and/or disease resistant properties (at least 7–10 varieties in 5 countries by 2014)	- New crops released in the period 2013–2014: (1) Heat-tolerant sweet pepper, one line, Mali, (2) Heat-tolerant and thick-stemmed Chinese kale, two lines, Mozambique, (3) Heat-tolerant, compact choysum, two lines, Vanuatu - 15 varieties released in seven countries in the period 2013/2014: Bangladesh: tomato, India: tomato, Taiwan: broccoli, Armenia: tomato, chili and sweet pepper, Kazakhstan: vegetable soybean, mungbean, chili and sweet pepper, Azerbaijan: tomato, Uzbekistan: mungbean - Varietal releases and large-scale uptake: small seed companies – seed business training course (companies from Burkina Faso, Cameroon, the Gambia and Mali), vegetable producers – vegetable production and maintaining crop nurseries, extension agents – traditional vegetable crop nurseries, African Seed Trade Association and Asia & Pacific Seed Association - <u>Preliminary impact studies study</u>: 40,000 farmers participated, A third tried new crops. Household production and profit: yields increased 3 to 5 times. - <u>Major national impacts</u>: Tanzania: Increasing productivity over the past 12 years due to new lines/varieties by AVRDC – The World Vegetable Center and national partners	- AVRDC collaborates with more than 170 partners (both institutional and private) across the globe - DFID PMFM stimulated coordination and exchange of experiences and good practices with other IARCs funded under the same mechanism and belonging to AIRCA. - Cooperation was established with CGIAR Research Program on Integrated Systems for the Humid Tropics; - Through the Global Technology Dissemination (GTD) group of AVRDC: ASEAN-AVRDC Regional Network on Vegetable Research and Development (AARNET); and the Network for Knowledge Transfer on Sustainable Agricultural Technologies and Improved Market Linkages in South and Southeast Asia (SATNET).
	New grafting technology for tomato and chilies providing greater flooding and disease tolerance (monitoring and impact assessment in place by 2014)	- AVRDC identified and recommended specific rootstocks for eggplant, tomato and pepper. - Grafting scaled-out to Vietnam, Bangladesh, Indonesia and Qatar; - Women's group in Jessore, Bangladesh, producing grafted seedlings for summer tomato production - Preliminary impact studies in Bangladesh: (1) all the new summer tomato farmers using grafted seedlings want to grow summer tomatoes again on a larger scale, (2) Women's group seedling nursery businesses are successful, especially when linked with the summer tomato growers - In Lam Dong province, Vietnam, 100% adoption rate and 30% yield increase in tomato farming. - <u>Pathway to expand impacts</u>: training activities for vegetable grafting in Bangladesh and Indonesia – based on the principle of Training of Trainers to expand the numbers of farmers and entrepreneurs who can be reached	
	Scaling up small vegetable gardens in >7 countries reaching >100,000 households; robust impact assessment framework in place with at least one peer-reviewed impact study published by 2014	- Home garden vegetable seed kits developed for farmers, trainees, private individual and public or private agencies upon request. Each kit composed of up to 17 different kinds of high yielding and nutritious vegetables to sustain a healthy diet for a family of four for a year (Bangladesh, India) - Private seed companies are now producing seed packs in Bangladesh, India. Aimed to sell 200,000, but actually sold over a million - <u>Preliminary impact studies on end vegetables consumers' families</u>: vegetable expenditures halved, consumption tripled. - <u>Pathway to change through dissemination and training</u>: (1) providing accessible nutrition around the home, (2) empowering women to make decisions about food and their families, (3) teaching children about agriculture, good agricultural practices and proper nutrition, (4) new income generation opportunities.	

IARC	Core research programme	Actions toward impact and sustainability	Partnering and dialogue with policy makers
	Communication-dissemination:	- The Global Technology Dissemination (GTD) group of AVRDC conducted a wide range of activities (capacity building, technology dissemination and agricultural development) in Asia, Africa and the Pacific: e.g. Training of Trainers workshop in Indonesia with 49 participants, school gardens, a value chain study, farmer-managed variety trials and Farmer Field Schools. - In 2013, AVRDC recorded the best communication and dissemination performance of the last 8 years: - o No. of TV, web, radio, press and related material: 300 - o Total externally reviewed journal articles, books, book chapters: 80 - o Publications in Thomson impact factor or equivalent journals: 31 - o Percentage of papers in journals, book chapters and conference proceedings with developing country co-authors: 74%	
ICIMOD	1. Mountain Agriculture and Climate Change: 1.1 Filling key knowledge gaps of the impacts of climate change on the cryosphere... 1.2 Development and uptake of evidence-based adaptation strategies ...	- ICIMOD established three pilot sites testing adaptation strategies and adaptive capacities: (1) Community-Based Early Warning System and Flexible Planning Approach in Assam, India. (2) Pilot on Climate-Smart Villages in Kavre district, Nepal based on learning from CGIAR programme CCAFS (3) Enhancing adaptive capacities of women to climate change in Sindhuli and Kavre Districts of Nepal. <u>M&E is ongoing along with the first impact studies.</u>	- ICIMOD is a Regional Intergovernmental Learning and Knowledge Centre. - ICIMOD gives regular support to 8 governments (Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan) in the definition of agricultural and environmental policies. - ICIMOD cooperates with local institutions and NGOs - Establishment of a Regional Flood Information System in the HKH Region – Timely exchange of flood data and information through an accessible and user friendly platform. - ICIMOD contributed to National REDD+ strategy definition.
	2. A step change in ICIMOD's systems for generating more regular, rigorous and robust ex-post impact assessments.	- Impact Assessments produced or about to be released: 1. Beekeeping Programme - impact on livelihoods planned, 2. Rangeland programme in China - Impact on ecosystem and livelihoods planned, 3. Rangeland energy - Impacts on livelihoods, 4. Bay leaf Impact evaluation in India and Nepal, 5. REDD+ Impact Assessment. - DFID unrestricted funding mechanism allowed for ex-post evaluations not otherwise financed by other donors.	
	3. Strengthening the quality and quantity of scientific outputs.	<u>Pathway to impacts:</u> - ICIMOD has published a total 103 publications during 2013, of which 38 were peer-reviewed journals. In 2014 a total of 43 publications were produced (till May), of which 18 are peer-reviewed. - 5 high quality case studies were made available for publication demonstrating impacts at scale, and responding to issues of climate adaptation, empowerment of women, food and nutrition security. - 11 Research outputs with a specific focus on empowering women and gender dimensions were disseminated through different media (papers, publications, conferences).	
	Communication-	- Relevant scientific publications: Remote sensing based method (2), Glacier mass balance (7),	

IARC	Core research programme	Actions toward impact and sustainability	Partnering and dialogue with policy makers
	dissemination:	Mountain climate and hydrology (5), Atmosphere- glacier (2), Innovative approaches (1), Adaptation strategies and adaptive capacities (7) - ICIMOD has an internal Communication Unit. Dissemination campaigns are undertaken in agreement with local NGOs, local and national authorities, the main difficulty being the vast number of local languages to deal with (more than 1,000 in the Hindu Kush-Himalayan region)	

Annex 6: Value for Money Analysis

1. Introduction

The Performance Management Funding Mechanism (PMFM) and its multi-year core funding encourages forward strategic planning, innovation and institutional agility, and provides a support base that strengthens long-term sustainability. Each of these organisational behaviours has potential to deliver value for money (VfM) by: (1) allocating inputs according to a research plan that is integrated with centre priorities; (2) enabling trials of promising but unproved new strategies; (3) allowing adjustment if needs change; (4) improving sustainability of ongoing centre operations after the PMFM ends.

The Terms of Reference focused the VfM line of inquiry on the efficiency and effectiveness of the PMFM funding mechanism. To fulfil that request, the VfM assessment has undertaken a high-level review of each Centre's self-reported performance against key deliverables agreed with DFID. The VfM assessment was desk-based, relying on documentation provided by each of the research centres and by DFID. The desk review was supplemented by recorded interviews conducted by team members and through follow-up phone interviews with several Centres. There were significant challenges during this process, particularly in the collection of data and analysis of DFID contributions to overall IARC programming. Largely, it was not possible to attribute specific outputs to DFID inputs because the expenditure of core funding and performance bonuses was not coded to specific IARC outputs (consistent with core funding modalities). More generally, the desk review was limited by the variation in financial information supplied by the Centres. However, in all instances, the review encountered Centre management who were enthusiastic about sharing their insights into the PMFM and the performance bonus. The VfM analysis is intended to provide supporting detail to the findings in the main report, understanding that the focus of the VfM reporting has been to assess the economy, efficiency, effectiveness and equity of the funding mechanism.

This annex first provides information on DFID's planned and actual financial commitments to the PMFM, also indicating the percentage of this funding as compared to the total funding of each Centre (Section 2). It next provides a brief history, financial overview and VfM findings regarding performance vs key deliverables for each of AVRDC, CABI, *icipe* and ICIMOD in turn (Section 3). Findings for GFAR are then provided in the next section (4) in a slightly different format (reflecting the different nature of the organisation and its key deliverables). Following on from this, Section 5 provides the findings in relation to VfM for the evaluation questions that relate particularly to efficiency and effectiveness (EQs 2, 3, 4 and 6⁴⁰) for AVRDC, CABI, *icipe* and ICIMOD. In Section 6 we present a discussion, based on the evaluation's findings, that looks at the effectiveness of the PMFM overall, and particularly the performance component. It includes recommendations for consideration by DFID on the future development of the PMFM. The final section, Section 7, was developed in response to requests from DFID during the evaluation, and puts forward some suggestions for a VfM monitoring plan and related potential VfM criteria.

⁴⁰ These are, respectively, 4.2, 4.3, 4.4 and 4.5 in Chapter 4

2. DFID's planned and actual finance for the PMFM

The Business Case for the DFID programme "Support to International Agriculture Research Centres that benefits Poor People" indicates that:

"The UK is investing up to £40 million in international agricultural research over four years from 2011–2015... Each of the selected research centres identified 3 or 4 key objectives ... based on their performance against the agreed key objectives ... we decide whether to award a 10% performance bonus for demonstrating good performance."

The financial commitments are disaggregated in Table 1. Changes to the plan include increasing the performance bonus from 20% to 25%; and discontinuing funding to GFAR due to poor performance against key deliverables.

Table 1: DFID planned financial commitments

Centre	2011/12	2012/13	2013/14	2014/15	2015/16	Total
AVRDC	340,000	1,440,000	1,880,000	1,900,000	380,000	5,940,000
CABI	900,000	4,567,600	4,966,000	4,967,000	827,000	16,227,600
icipe	353,033	3,682,400	4,066,000	4,067,000	647,000	12,815,433
GFAR	90,000	240,000	300,000	300,000	60,000	990,000
ICIMOD		1,220,000	1,220,000	1,236,967		3,676,967
Project Evaluation				50,000		50,000

Table 2 below (also in Section 4.3 Output 2) indicates total Centre revenues per annum (according to accrual accounting principles) and PMFM (cash) payments to each Centre each year split according to whether it is a core or a bonus payment.

Table 2: Total Centre revenue (accrual based) and PMFM funding to Centres (cash based) per annum (GBP)

	2011			2012			2013			2014		
	Total Centre Revenue	PMFM Core	Bonus	Total Centre Revenue	PMFM Core	Bonus	Total Centre Revenue	PMFM Core	Bonus	Total Centre Revenue	PMFM Core	Bonus
AVRDC	8,645,000	0*	-	8,278,125	1,780,000	-	10,995,625	1,520,000	-	12,090,000	1,520,000	-
CABI	25,024,000	900,000	-	25,182,000	2,640,000	427,600	28,742,000	5,312,000	994,000	32,235,000	3,972,000	994,000
icipe	12,350,425	353,033	-	12,949,278	1,920,000	262,400	16,853,818	4,588,967	814,000	20,277,229	3,248,000	-
ICIMOD	12,265,881	0**	-	14,243,623	1,098,000	-	13,296,323	549,000	-	16,758,902	1,662,270	-

*£340,000 disbursed to AVRDC by DFID for 2011 was received in 2012 and included in the total PMFM core amount for that year

**ICIMOD joined the PMFM programme a year later with the first PMFM funding being received in 2012

Sources: DFID correspondence August, 2015; AVRDC, CABI, *icipe*, ICIMOD correspondence August, 2015, Centre Annual Reports

The percentage of core and bonus funding for each IARC varies widely. DFID has chosen, by funds allocation, to power the research and institutional growth of certain organisations. There is not a fundamental VfM concern with such an approach. That said, as noted elsewhere in this report, we ask whether the selected organisations receiving the greatest percentage of total budgets from DFID are actually able to absorb the allocated funds and accomplish the changes required by DFID, particularly in relation to bonus payments.

3. Value for Money Reviews

This section provides, for each IARC, a brief description of what each Centre does, an overview of its finances, and a VfM assessment of the extent to which the Centre has performed against each of the key deliverables agreed with DFID. The VfM commentary, for each Centre, summarises, in tabular form, progress towards the key deliverables as an indication of the efficiency and effectiveness of the PMFM to drive desired results. Where it is assessed that there is good value for money this is indicated as +VfM. Where evidence of VfM was weak then this is indicated as –VfM. The key plus and minus VfM findings for each centre are also summarised in narrative text for each Centre. Sources of information included documentation provided by the IARCs and by DFID, including communications between DFID and each of the IARCs.

a. AVRDC - the World Vegetable Center

“Founded in 1971, AVRDC – The World Vegetable Center started as the Asian Vegetable Research and Development Centre with a mandate to support vegetable research and development in Asia” ...As AVRDC gained expertise and capacity, it began an expansion of its work beyond Asia and in 2008 formally adopted the name AVRDC – The World Vegetable Center - to reflect its global focus.⁴¹

Headquartered in Taiwan, with regional offices in Thailand, Mali, and Tanzania, AVRDC focuses its global work around four themes:

- **Germplasm:** Conservation, evaluation, and gene discovery;
- **Breeding:** Genetic enhancement and varietal development of vegetables;
- **Production:** Safe and sustainable vegetable production systems;
- **Consumption:** increased ‘consumer’ access to and utilisation of nutritious vegetables.

i) Finance

AVRDC’s 2014 budget is \$18,082,000 and shows appropriate financial management, clear high-level audit and management procedures,⁴² and small surpluses in the past two years. The organisation presents its direct vs indirect costs as follows:

Table 3: AVRDC indirect cost recovery rate

	2008	2009	2010	2011	2012	2013
Indirect cost recovery rate	22%	22%	23.2%	21.3%	20.9%	18.5%

Source: 2011–2012 Performance Report to DFID (2008–2011) and feedback from AVRDC (2012–2013)

⁴¹ AVRDC – The World Vegetable Center Annual Report 2011, p. 9

⁴² As evidenced in Annual reports of 2011 and 2012, for example.

Table 3 indicates that the proportion of costs that are indirect has been stable and in fact decreasing over recent years, implying an improvement in VfM. However, it is difficult to know what is included and how allocations were made to account for the data above. AVRDC offers this (limited) explanatory note.

*The pooling of indirect costs is based on the principle of attribution and assignability. Expenditures are pooled to different resource user units by direct identification. Expenditures that are common to many cost centres are allocated.*⁴³

Whilst assessment of the use of funds is not within the scope of this review, more detailed financial data would permit a cogent assessment of financial management. Future assessments should be preceded by submission of agreed-upon financial documentation that is sufficiently granular to permit accurate comparisons across years.

ii) AVRDC PMFM Core Funding, Performance and VfM

DFID has established key deliverables with AVRDC. The VfM findings in Table 4 measure progress toward achievement of key deliverables as an indication of the efficiency and effectiveness of the PMFM to drive desired results.

Table 4: AVRDC performance vs key deliverables

Key Deliverables		Progress notes			
		2011–2012	2012–2013	2013–14	VfM Comments
New improved vegetable lines with good nutritional and/or disease resistant properties (releases in at least 3 countries) in 2011; at least 3 new indigenous vegetable lines expected by 2013- 2014: two additional countries, 7–10 varieties	<i>AVRDC does not release varieties, rather relies on public and private sector partners to release varieties derived from AVRDC germplasm</i>	16 varieties of nine crops released in three countries.	Three new varieties developed in three countries; 15 vegetable varieties derived from AVRDC seed released in seven countries.	Met or exceeded target for 2014	+VfM: DFID core funding has focused AVRDC on impact assessment strengthening. Gradual growth from limited impact assessment in 2011, partial institutionalisation in 2012, to one robust impact study in 2014; additional studies 2015
New grafting technology for tomato and chilies providing greater flooding and disease tolerance, assess impact 2012, publication 2013, test models 2012–2013; monitor uptake 2013–2014		Assess impact 2012 Test scale-up models	Publication 2013 Test scale-up models	2013/14 Monitor uptake	+VfM: DFID core funding directed to meet tomato grafting key deliverable; broad effort over a decade; one impact study. -VfM Slow diffusion; broad uptake strategy appears under-developed to date.
		Tomato grafting impact study completed 2012 scale-up strategies remain in the testing phase	Further impact assessments; no follow up indication of publication; models for scale-up tested / no clear plan	Tomato grafting tech. tested in Vietnam, Indonesia, Bangladesh; no report on chili grafting. AVRDC indicates new	

⁴³ Source: AVRDC Performance Report to DFID 2011, 2012, 2013, 2014

Key Deliverables			Progress notes		
			beyond testing	core funding dedicated to grafting scale-up.	
Scaling up small vegetable gardens in >7 countries reaching >100,000 households; robust impact assessment framework in place with at least one peer-reviewed impact study published by 2014		2011–12	2012–13	2013–14	+VfM: Reports demonstrate traction for expansion/adoption of nutrition rich home gardening. -VfM: Impact assessment of uptake, and clear strategy to strengthen wide-scale adoption needed to power VfM of DFID investments
		Home gardens designed for HH nutrition developed; tested in situ; nutritional value quantified in situ; impact assessment commissioned; dissemination strategy produced	Garden TOTs workshop, seed kits developed; baseline study and impact research partnered with academic institutions	Continued growth of home garden technology and new countries added. Centre lists +50 partner in 12 countries as evidence of scale-up.	

Sources: AVRDC communication to DFID 2011, 2012, 2013, DFID communication to AVRDC 2011, 2012, 2013, 2014

The PMFM has effectively focused AVRDC's institutional attention on the need for robust impact evaluations of research. AVRDC has begun processes to enhance staff capacity to undertake rigorous assessments of the uptake of new technologies. Core funding has also advanced research in tomato grafting and nutrient-dense home gardening.

Unfortunately, rigorous impact assessment of new technologies, despite being identified by DFID as a critical success-point, still lags behind according to various DFID communications to the Centre over 2011–2013. Less successful also are strategies to promote broad-scale uptake of new technologies. Knowledge diffusion channels appear to be less developed than desired and it is not clear that AVRDC has a strategy to strengthen broad-scale diffusion. Lacking such a strategy, and consequent increased uptake, it is difficult to conduct the impact assessments desired.

b. CABI

CABI began in 1910 with a small grant to combat the effects of disease and pestilence upon humans, animals and crops in Africa. It grew to become a Commonwealth organisation in the 1920s and spread further with the establishment of research centres in Switzerland, India, Pakistan and expanded stations in Africa. Today CABI is an intergovernmental non-profit organisation with 48 member countries and an operations portfolio that encompasses:

- Addressing poverty by increasing crop production, quality and safety;
- Publishing and disseminating research findings;
- Increasing smallholder farmer access to education and information to promote production;
- Value chain strengthening, with partners, to increase the marketability and value of agricultural production;
- Combatting invasive species of plants and insects that impact agricultural production and health.

i) Finance Summary

CABI's relative financial position has strengthened since 2009; Table 5 shows the effect of growing revenues and controlled costs from 2009–2012.

Table 5: Operating (Deficit) Surplus £'000

2009	2010	2011	2012
(473)	578	661	710

Source: CABI Annual Report and Financial Statement December 31, 2012; 2011; 2010, 2009.

Revenue has grown annually but in a pattern that may indicate future risk if not addressed successfully. For example, while CABI's revenue from publishing activities increased during the period 2006-2014 (from £10m to £12m), as a percentage of total revenue, it has been gradually decreasing. This is likely to be a result of CABI's successful efforts to increase its role in, and revenue from research for international development having attracted several new donors for various projects. As development funding is generally project-based, short-term, and unreliable for long-term organisational sustainability, increasing dependence upon project funding constitutes a long-term risk for CABI though this is ameliorated to some extent by the diversity and range of donors. DFID core funding is especially important to CABI. In itself, this may justify the VfM of core funding to CABI, especially if results are strong.

Table 6: CABI Annual Revenue Matrix (%)

Source	2005	2006	2007	2008	2009 ⁴⁴	2010	2011	2012
Publishing ⁴⁵	53	51	49	46	48	48	45	44
Int'l Dev't	35	38	38	43%	43%	42%	47%	48%
CABITAX	6	5	6	5%	5%	5%	4%	4%
Member fees	4	4	3	4%	3%	4%	3%	
Other	2	2	4	1%	1%	1%	1%	1%

Source: CABI Annual Report and Financial Statement 31 December 2012; 2011; 2010; 2009.

Given increased revenues from 2009 through 2012, CABI expenditures grew approximately 30%. Notably, in a period of significant revenue growth, total CABI staff costs remained stable at 30% of total revenue. So, whilst staffing grew as revenues increased, the rate of staff growth was parallel to the rate of revenue growth rather than a rapid rise, thus indicating value for money. While this review is not able to assess the efficiency of staff functions, the parallel rates of income and staff cost growth do indicate a degree of efficient use of new funding. Flat staff costs, as a percent of budget during a period of revenue growth, when coupled with new extra-budgetary expenditures to fund a projected deficit in CABI's defined benefit plan, are noteworthy indicators of efficient use of funds and VfM in CABI operations.

⁴⁴ There is a discrepancy in percentage of contribution for 2009 as reported in the 2009 report and the 2012 report. We accepted the 2012 figures, noting the discrepancy.

⁴⁵ CABI Publishing publishes books and abstracts databases (CAB Abstracts, Global Health) from a large (non-CABI) author base worldwide as well as publications from Centre staff.

ii) CABI PMFM Core Funding, Performance, and VfM

DFID has established key deliverables with CABI and the CABI Development Fund. Progress towards milestones of the CABI development Fund is summarised in Table 7 below.

Table 7: CABI Performance vs Key Deliverables

Key Deliverables		Progress notes		
		2012–2013	2013–2014	VfM Comments
<i>Roll out of new national plant health systems in 30 countries; with 500 plant doctors of whom >50% are accredited, reaching 2 million farmers by 2014. Regular analysis of clinic data for quality and impact.</i>	<i>Country-specific strategies and implementation plans produced according to an agreed format for all new countries</i>	31 countries with Implementation plans and budgets. 16 country partnership agreements. 585 new plant doctors trained and ToT begun.	Farmers reached is below 2013 target; campaigns in place to exceed target by end of 2014. 742 plant doctors trained/passed the module exams in the past year; >2000 doctors now trained/accredited; 720 plant clinics in total, compared with 420 at December 2012. POMs systems to monitor plant doctor quality	+ VfM: -Rudimentary VfM plans established 2012–13 - Quality control embedded into ToT increasing potential VfM of ToT -POMs quality monitoring tool. -VfM: -Rapid roll out: effectiveness assessment required.
	<i>Plans for a clinic-complementary mobile/digital agri-advisory service finalised for 2+ countries.</i>	Kenya and India selected; implementation work plans defined/scheduled; on track. D2F complementary services performance to be tested before roll out.	Ongoing	+ VfM: Clinic performance measured comparing complementary impact of PDA-hosted diagnostic services.
	<i>Systems in place with >50% of clinic operations to monitor outcomes, customer satisfaction and gender balance.</i>	Plant clinic data validation processes developed and tested centrally.	Data management workshops training conducted in 14 countries, user feedback taken at all workshops; in-country action plans developed and	+ VfM: Growth of data management incorporating user feedback Neutral VfM: M&E systems development slowed/constrained by lack of M&E staff.
<i>Knowledge Bank v3 launched, providing open access information on >2500 pests (focusing on diagnosis, treatment and distribution),</i>	<i>Plantwise Knowledge Bank (KB) development.</i> <i>Milestone 1: KB in use by at least 3 active PW countries to support</i>	On track in nine countries; no evidence yet of KB use influencing policy	Market feedback complete; has exceeded goal for information; high number of KB online visitors	+ VfM: -Market feedback loop affects KB development; impact or end-user surveys required to assess effectiveness.

Key Deliverables		Progress notes		
		2012–2013	2013–2014	VfM Comments
<i>integrated into plant health systems in >5 active Plantwise countries. Secure system to allow national partners easily to digitise and manage their information.</i>	<i>national plant health systems and/or policymaking.</i>			-High volume web visitors and page views early indication of value to end users.
	<i>KPIs for usage and quality established and monitored.</i>	On track; M&E systems in place		N/A
Step change in CABI M&E systems; strategy and approach for ex-post impact evaluation in place, meeting standards equivalent to SPIA. Two ex-post impact evaluations prepared for publication in peer review journals by 2014; external evaluation of Plantwise by 2014	<i>Sr. M&E post filled; strategy for impact eval. Developed; 2 impact evals. Prepared for peer-reviewed publication; external eval. of PW in 2014</i>	Post filled; CABI-wide M&E training extended; delays in full M&E progress due to illness of Sr M&E officer; impact evaluations and external review planning delayed.	M&E staff partially completed recruitment ongoing; POMS piloted in four countries; ex-post impact evaluations in planning	+ VfM 12 case studies prepared for publication by end of 2014; Complete impact evaluations strengthen VfM Evidence of changes resultant from new M&E staff should be reported.
New innovative work around use of mobile advisory services	<i>At least one plant health campaign via mobile; Plans finalised for launch of mobile agri-advisory service in 2+ countries</i>	India IKSL 4m subscribers; mKisan call centre in six Indian states; Café Movel 150k coffee growers; D2F pilot Kenya and India.	Evaluations planned for pilot mobile services in Kenya and India; results expected until Q4 2015.	+VfM High investment leverage/VfM for mobile ag. service delivery; requires rigorous end-user impact assessment

Sources: Cabi Annual Reports 2009,2010,2011,2012 DFID communication with CABI 2011,2012,2013,2014

CABI has been broadly successful with achieving key deliverables, reporting that the core funding enabled it to strengthen its institutional M&E systems and improve structures for technology roll-out. CABI uses bonus payments for innovative and high-risk, high reward small investments through an innovation fund. Institutional M&E strengthening, improved roll-out structures and innovation investing are examples of PMFM powering high VfM.

Whilst CABI has lagged in robust impact assessment, it did commission an externally-led evaluation of the Plantwise programme in 2013-2014 and has prepared an impact study for peer review. Meanwhile, it has had difficulties in hiring sufficient capable M&E staff able to enhance progress in impact assessment. As CABI have noted, “*it takes time to hire good quality M&E staff, induct them into the organisations and have them deliver results*”.

c. *icipe*

icipe, African Insect Science for Food and Health (www.icipe.org), is a pan-African research and development centre that is over 40 years old and has operations in 30 countries in sub-Saharan Africa. It has its international headquarters in Nairobi, several field stations across Kenya and country offices in Ethiopia and Uganda. The Centre’s research and development philosophy is

encapsulated in its 4-H paradigm, focusing on human, animal, plant, and environmental health with arthropods as the common denominator. *icipe* is also an intergovernmental organisation whose charter was signed by 13 countries worldwide.

i) Finance Summary

icipe has expanded rapidly as demonstrated by income and expenditure in Table 8 below.

Table 8: *icipe* Annual Revenue and Expenditure Growth (USD)

	2010	2011	2012	2013
Total income	13,441,763	19,760,680	20,718,845	26,966,108
(% change)		(47%)	(5%)	(30%)
Total expenditure	12,061,804	17,896,718	19,279,452	23,150,794
(% change)		(48%)	(8%)	(20%)

Source: *icipe* Audited Accounts Management Letter 2013

Whilst *icipe*'s growth is impressive, rapid growth carries risks to performance.⁴⁶ In 2013, *icipe* auditors highlighted the need to update financial controls and internal management processes to align with growth. They further indicated that *icipe* was at risk of non-compliance with set internal controls. The lack of a clear succession plan for key positions (DG, DFA and HR) was also highlighted. The auditors' statement in the referenced Management Letter noted that the rapid growth of *icipe* income was not matched by a concurrent growth in management processes including financial controls, a coherent HR strategy to plan for inclusion of new staff and for leadership transition, and to plan strategically for organisational growth.

Typically receiving such a management statement would be an alert to organisation management to make significant process and structural change, and it should be a red flag to donors. In such an instance, any further grants to *icipe* that were not targeted to organisational capacity building (finance, management, and research) would be high risk and probably lower VfM until evidence of organisational financial and management growth is provided. Rapid growth creates risk if it is not accompanied by concurrent growth in management systems.

In response to the above caution, however, *icipe* has provided a detailed and cogent statement of the steps taken to improve its financial management systems. Whilst pending a formal response from key donors to the KPMG audit, *icipe* management has instituted several changes in the finance and administrative areas for the efficient management of the Centre including the approval, by the Governing Council, of several new/updated policies.

It is too soon to tell but the increasing gap between income and expenditure (see 2013) may be an early sign that income growth is straining organisational capacity to absorb. DFID's funding pattern including the PMFM has driven *icipe* growth well above the average annual growth.

Table 9: Annual Growth of DFID Funding

	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
Total £	500,000	660,000	922,000	2,148,887	3,256,000	4,062,000

⁴⁶ Noted in the 2013 Management Letter

% growth		32%	40%	133%	52%	25%
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In response to the Management Letter, *icipe* presented an undated Succession Plan that proposes a very general short-, medium- and long-term recruitment strategy for positions across *icipe* (support, technical and research). In response to the 2013 Management Letter, which was instigated by the resignation of the DG, who also provided scientific leadership, *icipe* has now actively recruited for and filled a number of second-level positions across the organisation.

This activity is important, though it is noted that the Management Letter on succession implied the need for a strategic plan for succession, not only staff replacement. At the time the evaluation was carried out, it was still not clear if the “management pipeline” was part of a formal HR strategic plan. Formalising HR leadership planning and succession as part of the organisations adopted strategic plan would meet the concern of the Auditor’s Management Letter.

ii) *icipe* PMFM Core Funding, Performance and VfM

DFID has established key deliverables with *icipe* and progress toward milestones is summarised in Table 10 below.

Table 10: *icipe* Performance vs Key Deliverables

Key Deliverables	Progress notes			
	2011–2012	2012–2013	2013–14	VfM Comments
Scaling-up of two <i>icipe</i> technologies: push-pull control of striga in cereals in Africa IPM technology for control of African fruit fly (currently operating in 8 countries)	Push-Pull: cumulative 47,000 small-scale farmers; total est. 282,000 direct beneficiaries.	Cumulative 53,789 small-scale farmers; total est. 300,000 direct beneficiaries	Cumulative 64,077 small-scale farmers; total est. 330,000 beneficiaries	+VfM: innovative showing strong initial adoption -VfM: questions about scale-up pace, translational mechanisms
	IPM technology adoption: cumulative 1,000 small-scale orchards; total est. 6,000 direct beneficiaries	Cumulative 1,500 small-scale orchard; total est. 9,000 direct beneficiaries	Cumulative 2,100 small-scale orchards; est. 12,600 people benefitting from the technology	
Independent External Evaluation of <i>icipe</i> ’s capacity development investments	Study engaged	Study completed and reported http://www.icipe.org/images/stories/pdf/arppis_external_evaluation.pdf Different study recommended three improvements to capacity development plan		+VfM: Studies completed. -VfM no clear reporting on how studies have changed institutional behaviours

Key Deliverables	Progress notes			
	2011–2012	2012–2013	2013–14	VfM Comments
At least two rigorous ex-post impact assessments of <i>icipe</i> technologies demonstrating impacts on productivity, income, nutrition, or livelihoods		Two case studies (IMP; Fruit Fly) published.	Institutional R&D review complete	+VfM: Key Deliverable undertaken. -VfM: No clear reporting on how external review results have changed institutional behaviours

Source: Annual Report to DFID, 2013

icipe has grown rapidly across the institution with innovative practices that have significant long-term potential for smallholder farmers. *icipe* has also met a key deliverable of two rigorous ex-post impact assessments.

One of the key deliverables agreed between *icipe* and DFID was the scaling-up of the push-pull control of striga in Africa. According to reports to DFID, farmer adoption of striga grew from 47,000 in 2011 to 55,000 in 2013. The presentation made to the review team indicated adoption by over 96,000 farmers, though no data was offered in support of the claim, and *icipe*'s own report projected 60,000 adoptees or 30% less than reported to the review team.

For a technology with such promise, and with such a pronounced increase in organisational funding growth, the pace of scale-up seems modest. This apparent paradox led the review to further investigate the scaling-up plan. Whilst not able to uncover a push-pull scale-up plan among the documents provided, the December 2013 Push-Pull, a constraint in the availability of desmodium seed was noted, and reports to DFID include strategies for small-scale experimentation with new approaches and dissemination pathway studies in Uganda. The review team did not, at the time of data collection, see evidence of a wide-scale push-pull dissemination plan with rigorous end-user studies. *icipe* has since (June 2015) reported that during the evaluation (which ended in January 2015) they did secure funding from the European Union and McKnight foundation, which has helped them identify barriers to adoption, develop solutions to these and implement them in the field.

The slow pace of scale-up of such technologies after rapid start-up growth during the evaluation period raises questions about *icipe*'s ability to consistently and effectively translate research into large-scale adoption. The review notes that *icipe*'s rapid growth in funding is not fully mirrored by a parallel growth in research diffusion. The lag between advances in pure research and translation to end users can be substantial and cannot be fully addressed by any research organisation alone, or by the PMFM alone. Streamlining linkages between research institutions and end users (Ministries of Agriculture, smallholders, private sector, etc.) is a key area for donor consideration for future programme funding. It is reasonable to ask whether *icipe* has been able to absorb or fully take advantage of its rapid growth in funding in ways that benefit end users. The question is not whether *icipe*'s work is valuable; it is whether *icipe* can show its value in end-user uptake and impact.

d. ICIMOD

ICIMOD's mission is to enable and facilitate the equitable and sustainable well-being of the people of the Hindu Kush Himalayas (HKH) by supporting sustainable mountain development through active regional cooperation. The Centre's aim is to provide knowledge and evidence to influence policy and practices to meet the associated and emerging challenges in the HKH region.

i) ICIMOD PMFM Core Funding, Performance and VfM

Table 11 below summarises ICIMOD performance vs key deliverables.

Table 11: ICIMOD Performance vs Key Deliverables

key deliverables	2012–2013	Progress notes 2013–14	VfM Comments
New knowledge products developed on the cryosphere, especially on glaciers and snow cover, melting, and permafrost status.	Permafrost pilot study initiated; Cryosphere Knowledge Hub (http://www.icimod.org/cryosphere) is operational; Indus Basin Knowledge Platform established; MODIS Satellite Data Receiving and Processing Facility to map and monitor the snow cover of the HKH region established.	Two impact assessments completed Publication goals exceeded; linkage study under way	+VfM: <i>meets or exceeds most targets.</i> Results based; clear objectives; strong relationship with constituent governments/actors
Two glacier mass balancing studies ongoing and preliminary information on glacier melt acquired.	Five glacier mass balance studies are currently ongoing, four in Nepal and one in India. Numerous studies under way.	There are pilot testing strategies established and monitored.	-VfM : Challenged to meet targets for improved M&E systems, internal systems improvement still required
One publication in a peer-reviewed journal on the cryosphere.	Two peer reviewed publications.		
Analysis under way on linkages between changing water availability and agriculture in at least two pilot areas.	Analysis under way		
A step change in ICIMOD's systems for generating regular, ex-post impact assessments.	ICIMOD has adopted impact pathways as an integral part of its monitoring and evaluation system. During 2013, the impact pathway approach has been applied to the Koshi Basin Initiative, Kailash Initiative, and Adapt Himal Initiative. ICIMOD is planning to launch three impact assessments on renewable energy technologies for herders, value chains and beekeeping. Impact assessment has been made part of the M&E plan for the Kailash Programme	Five studies planned or completed. Improvement in M&E systems beginning to be reflected in reporting and quality of outputs	+VfM: Good VfM is anticipated; depends upon completion and publication of planned studies Staff training on impact assessments under way. Two external impact assessments completed

Revised M&E system which incorporates impact studies, staff training for impact assessments and launch of three specific studies. At least two independent external studies completed			
Strengthening the quality and quantity of scientific outputs More than double the amount of peer-reviewed publications (journal articles and book chapters) from 17 (now) to 40. Train staff; mandate publication	Training for staff completed and ongoing. 41% professional staff now required to publish. ICIMOD has published total of 103 publications during 2013 out of which 38 were peer-reviewed journals	In 2014, total of 43 publications were produced by mid-year May, out of which 18 are peer-reviewed.	+VfM: Improved publication measures; clearly focused research to advance ICIMOD constituent needs; staff publication capacity building under way.

Sources: DFID communication with ICIMOD performance reviews 2012–3; 2013–4; Mid-term review 2010; DFID response to self-assessment 2012; ICIMOD Annual Reports 2011, 2012, 2013, and DFID First and Second Assessments to ICIMOD

Like some other centres, a key area of underperformance is improved M&E systems leading to robust impact assessments and end-user behaviour change metrics. ICIMOD reports its results well using its own measures (annual reports, etc.) but lags in M&E systems development. PMFM has pushed ICIMOD to strengthen M&E systems and this review sees evidence of improvement. We think it is likely that ICIMOD will continue its improvement trajectory and will be aided by increased dialogue with DFID about specific requirements to be embedded in a rigorous M&E system.

4. GFAR

GFAR was established with the purpose of facilitating the “better articulation of international research with development through improved linkages at different levels with research partners”.⁴⁷ In view of this, GFAR’s mission is to “mobilise all stakeholders involved in agricultural research and innovation systems for development, and to catalyse actions to alleviate poverty, increase food security and promote the sustainable use of natural resources” and the following strategic objectives:⁴⁸

- Advocacy for change through agricultural research to meet the future needs of humanity
- Reshaping institutions for the future to link agricultural science and society
- Increasing ARD effectiveness by fostering inter-regional partnership and learning
- Bridging the knowledge gaps and enabling the poor to access critical knowledge to empower their own innovation and development

⁴⁷ Scott Report

⁴⁸ Accessed from: <http://www.egfar.org/about-us>

In September 2011, DFID responded to GFAR's self-assessment with the following summary:

GFAR provides an important mechanism for providing CGIAR accountability on behalf of a wide set of stakeholders. It is the only mechanism for farmer voice on the CGIAR Fund Council. Contributes to international agriculture priority setting, and is developing work on the role of women in agricultural innovation. However, results frameworks are weak, and systems for monitoring and evaluation undeveloped. No mechanism in place for external review. As a result, the impact of GFAR in terms of changes in agricultural research funding and programmes is difficult to assess.

DFID further expressed some frustration with GFAR that, in response to DFID's request for a few specific deliverables, GFAR responded with "an eighteen page document". This discussion continued through 2013 and in April 2014 DFID core funding through PMFM ceased due to a decision that four requirements contained in a letter from DFID to GFAR were not met:

We considered evidence of progress in four areas identified in the June review (letter from DFID of 29th July 2013) as a requirement for further funding:

- i. clear, concise reporting of results;*
- ii. an effective strategy to measure impact;*
- iii. significant progress towards the reforms indicated in the Governance Review; and*
- iv. evidence of cost-effectiveness.*

DFID funding has to be results-focused and able to demonstrate that it presents value for money to the UK taxpayer. We concluded that the conditions laid out in the letter of 29th July had not been met and thus have decided that DFID funding to GFAR will cease from 15 April 2014.⁴⁹

This review appreciates the reasoning and communication between GFAR and DFID that led to the above conclusion. At the same time, we are cognisant of the unique role played by GFAR in the revitalisation of CGIAR, its role as a forum for collegial donor and country-partner planning and interaction, and GFAR's role in catalysing country-partner action and coordination. To this point, we note that the Scott study⁵⁰ presenting funding options for DFID stated:

If GFAR did not exist, it is quite possible that the CGIAR reform process would recommend establishing a similar organisation that brings together a range of "stakeholders" committed to promoting research for development.

We offer the following observations as a contribution to the continued evaluation within DFID of value-adding funding opportunities for DFID.

GFAR is not, and never has been, primarily a research institution. The DFID criteria for measuring the added value of GFAR appear to be appropriate for a research institution generating research outputs. Thus, the decision to not fund GFAR through PMFM for support of IARCs is justified.

⁴⁹ DFID letter to GFAR, 19 February 2014

⁵⁰ Scott, M. *A Study on Options for DFID's Management of Support to International Agricultural Research Organisations Not Part of The Consultative Group on International Agricultural Research*, December 2008.

This review's interest in whether GFAR should be funded is only whether DFID is missing something valuable that is related to, but not directly a research output. GFAR, as a stakeholder forum of all actors in agricultural knowledge, innovation and enterprise, is not a research institution. GFAR is largely about catalysing change in the public sector, private sector and in civil institutions, to make them more effective in delivering agricultural development impacts for beneficiaries in member countries.

Catalytic benefits drive change towards greater resultant impacts by bringing together partners across sectors – and should be measured as such. The recent improvements in GFAR's Theory of Change (ToC) align expected results with this catalytic role. Further, catalytic benefits are difficult if not impossible to measure as directly attributable end impacts in themselves. The parallel is of a ripple effect – GFAR triggering change in other actors, who in turn influence and drive change at national level.

The challenge of measuring GFAR's catalytic effect raises the question: does the catalytic benefit of multiple partners working together in GFAR facilitate valuable contribution by the research sector and does GFAR collaboration open channels with government ministries, the private sector and NGOs to drive increased research benefit to beneficiary end users across the same partners? It is certainly possible to conclude that the catalytic role of GFAR partners collaborating provides a unique, efficient and effective channel for agricultural research centres to bring scientific knowledge to end users.

Despite the difficulty of measuring catalytic benefits, DFID core funding and the dialogue around reporting requirements has promoted useful change within GFAR. For example, in 2014 GFAR commenced requiring that all funding and technical support provided to stakeholders through the GFAR mechanism include time-bound output and outcome measures. This valuable change is now reflected in the GFAR M&E processes. This result is attributable to DFID interaction around PMFM funding. Still, it is not likely that the output measures will be as tangible and quantitative as research outputs since GFAR is a stakeholder forum with persuasive rather than prescriptive control over network partners.

GFAR is now actively driving forward a funding facility with IFAD, to put financial resources behind the changes that so many stakeholders are recognising as required through their work in the GFAR Forum. This is particularly focused on value chains and creating enterprise opportunity for women and youth through innovation in agriculture and agri-food systems through public-private-producer partnerships. GFAR is mobilising action and funding to address key blockages in these chains, using the value of the multi-stakeholder GFAR to mobilise actions, capacities and interventions as required along the value chain continuum concerned.

This review does not disagree with the decision to de-fund GFAR. We only suggest that, as the drive to push agriculture research to private sector end users broadens, institutions such as GFAR might be in a good position to bring together the private sector and research institutions for translational research dialogue and strategies.

It is reasonable to ask if an agricultural research funding channel in DFID should fund a non-research centre, albeit a vehicle that can strengthen research adoption and uptake. This review is convinced that some level of funding to GFAR is valuable because ongoing funding will give DFID a seat at the table, through GFAR, with other stakeholders: other donors, government ministries, and private sector adoption channels. GFAR sits with global agribusiness in new

initiatives on global Big Data that has enormous potential impact for future agriculture practices in Africa and Southeast Asia. Given that GFAR funding was quite modest, being able to interact with global agribusiness through GFAR seems low risk and potentially moderate to high value. This finding mirrors the Scott (2008) report previously mentioned.

5. VfM findings related to evaluation questions 2, 3, 4 and 6⁵¹

a. Evaluation question 2: What has been the response of the Centres and the reaction of other donors and stakeholders and, in their judgement, how effective to date is this mechanism proving to be?

Note that these findings particularly relate to the VfM elements of EQ2, these being those mainly concerning the core funding, and the performance component. Also note that EQ3 below also addresses core funding and the performance component. The findings below are drawn upon in Section 4.2 of the Findings chapter.

AVRDC: AVRDC was vocal about its desire that clarity and transparency should accompany the bonus award decisions. AVRDC did not feel that the criteria for awarding the bonus were clear and consistently applied. With that caveat, AVRDC appreciates the core funding, and believes it did not substantially alter the organisation's internal transaction costs. In its feedback on the draft final report, AVRDC considered that the value of the bonus payment was over-emphasised in relation to the core funding itself. They stated that: *"Having guaranteed core funding and scientific targets known and agreed well into the future, around which research can be organised with security, is what AVRDC feels to be the key to the success of the PMFM"*. The level of DFID-AVRDC interaction, occasioned by the nature of the PMFM, receives mixed reviews. Negative factors include the infrequent visits of DFID to AVRDC and the lack of negotiation and conversation about the awarding of the performance bonus.

CABI: CABI strongly supports retention of core funding as a tool that powers innovation and agility within the organisation, lends credibility of the organisation to other donors, and strengthens internal functions that may be lost or unfunded with project funding. CABI also strongly supports the performance bonus element as a tool that keeps *"our eye on the prize"*.

icipe: *icipe* is strongly supportive of the PMFM and performance bonus component. Along with other Centres, *icipe* suggests a change from an all-or-nothing bonus to a graduated performance bonus with metrics to be mutually determined. *icipe* states that core funding has been invaluable to them and in strengthening organisational outputs and sustainability through the growth of a reserve fund.

b. Evaluation Question 3: What is the evaluators' (independent, evidence-based) assessment of the intended and unintended, positive and negative effects of the funding mechanism? How can it be made more effective?

Note that there were several sub-components of EQ3. The question asked about performance against key and cross-cutting deliverables (this has been discussed in Section 3 above, VfM

⁵¹ These evaluation questions (from the EM) equate to the questions under 4.2, 4.3, 4.4 and 4.5 in the main report.

reviews). However, the question also asks about the effectiveness of the funding mechanism itself. This covers the core funding, the performance bonus, transaction costs, effects of the changed levels of interaction with DFID as a consequence of the PMFM, etc. The findings in this section are consequently (also) drawn upon in Section 4.3 of the Findings chapter.

AVRDC: The PMFM has not substantially affected transaction costs. Initially the reporting requirements seemed to consume more staff time to prepare, but over a short period, the requirements became more familiar. The real change in transaction costs is that core funding allowed AVRDC to concentrate on larger grants and commissioned studies, dedicating staff time to fewer and larger grants. This is seen as very positive by AVRDC and is responsible for transforming AVRDC's fundraising strategy.

Despite progress, it is not evident yet that the PMFM has created the change in management and technology uptake systems that is desired.

CABI: Interviews leave no doubt that CABI appreciates and has benefited from the multi-year core funding provided by DFID. The benefit is not, primarily, a reduction in transaction costs resulting from reduced grant-seeking. Rather the benefit is quite clearly expressed as resulting from the discussions and relationship between CABI and DFID that have developed through the process of planning for annual targets in the PMFM.

CABI indicated that the performance bonus is a valuable innovation and they hope that it is retained for the benefits of improved planning capacity; focused attention on key institutional issues; and the learning relations that are engendered between the donor and recipient organisation. There were no indications of negative consequences from CABI leadership.

CABI's suggestion for change, echoed repeatedly by other Centres, is that the bonus be revised and graduated between 5% and 25%. DFID could retain its strategic ability to focus and leverage results for emerging and high priority issues by linking a graduated bonus to a graduated evaluation of agreed-upon KPIs.

icipe: Core funding has powered innovation and flexibility within *icipe* as demonstrated in push-pull strategies, new bio pesticide research for tick control, and gradually increasing private sector engagement.

Because *icipe* revenues have grown so quickly *icipe* has been able to create new substantial reserves, much of which has been funded by DFID performance bonuses, as well as being used for infrastructure, and impact assessments. *icipe* has stated that, if not for the PMFM bonuses, *icipe* would have used self-generated income for reserves. It is reasonable to question whether the use of large portions of bonus funding generates the most VfM for the taxpayer by developing organisational reserves (that would have been funded by other sources).

In response, *icipe* has revised its prior statements that, if not for the PMFM bonuses, *icipe* would have used its own funds for reserves. Since we were told that fund expenditure was not coded to identify the use of DFID funds specifically, we cannot verify or question that assertion. What we do question, though, is how future DFID funding to *icipe* can be targeted to delivery of key deliverables and not to the continued development of reserve funds.

As with other Centres, *icipe* prefers a change from the “all-or-nothing” bonus to a graduated bonus system. Table 12 illustrates the history of performance awards from DFID to *icipe*.

Table 12: *icipe* Performance Award History

Year	Potential Performance Award £	DFID Action
2012	170,000	Awarded
2013	814,000	Awarded
2014	814,000	Not awarded

It was of interest to this review that there does not appear (in the documents we were able to review) to be a trail of “warning” to *icipe* that the 2014 performance bonus was in jeopardy.

DFID correspondence to *icipe* and *icipe*’s replies from 2012 and 2013 indicate at least four issues identified for improvement: more rigorous ex-post impact evaluations; evidence of uptake of new technologies; developed gender-sensitive programming; and improved financial controls/statements that demonstrate a growing management capacity.

From a VfM perspective, we do not question whether *icipe* deserved an award in any year, or should have been denied an award in 2014. We do, however, raise a concern about the value proposition of DFID bonus awards if such decisions are not accompanied by very clear communication between the donor and recipient organisation. In this instance, from 2012 to 2014 including the final letter denying a performance bonus, the communication from DFID to *icipe* about performance expectations was unclear. Much *icipe* activity was praised, including a top VfM rating in 2011. In the 2013 performance letter to *icipe*, three key action items were identified by DFID accompanied by an award of £814,000 (a huge increase from 2012). Readers could well conclude from the letter and award that *icipe* was proceeding along lines that were acceptable to DFID and, while action items were identified, there was no indication of risk within 12 months.

The key issue from a VfM perspective is how DFID and *icipe* could communicate more effectively so that DFID gets the improvement in *icipe* programming it seeks. DFID invested £1,076,400 (see Table 3 in main report) in performance awards to *icipe* from 2011–2013 and raised similar issues in each report. So which communication – the words or the money (bonus) – was most effective? The bonus served as a tangible reinforcement of support for *icipe*’s operations without conveying DFID’s growing sense of urgency to see evidence of change.

How the performance bonus structure contributed to a gap of understanding that led to *icipe*’s surprise at not being awarded a bonus and DFID’s increasing frustration that operational changes were not acted upon, is key to the VfM of the PMFM itself.

ICIMOD: ICIMOD uses unrestricted funding well, and has employed DFID funding for specific research to meet DFID objectives, to strengthen M&E systems in order to gradually shift the DFID-imitated results focus downstream to ICIMOD partners, despite inherent resistance to change and rigorous assessment. DFID funding has been used to complete unfinished work, to train staff and build capacity in research writing and publication, and to mainstream gender-sensitive policies through HR and other structures, resulting in increased numbers and productivity of female staff.

Upon reviewing ICIMOD and DFID reports, it is evident that ICIMOD is performing well in many areas, and that improvements in impact assessments and monitoring are progressing, though more slowly than DFID would like.

In this instance, we question whether not awarding a performance bonus will achieve the improvements in impact assessment DFID wants to encourage. We ask if DFID would be more successful in achieving the improvements it seeks if a performance bonus were awarded with the requirement that the funds be used exclusively for fast-tracked, improved impact assessments and capacity building among ICIMOD staff.

c. Evaluation Question 4: To what extent has this funding mechanism delivered or improved the quality of research outputs, with particular regard to deployment of technologies and robust measurement of impact, in relation to more conventional funding mechanisms (both project funding and core unrestricted funding)?

VfM findings reported in this section are drawn upon for both EQ3 and EQ4 in the main report. Findings range from those related to quality of research output, institutional change including improvements in M&E systems (all relevant to EQ3) and those related to deployment of technology (relevant to EQ4).

AVRDC: The quality of research and the deployment of technologies have been, according to Senior Management, substantially changed by the PMFM. *“Since we are demand-driven the planning of our core work has not changed but the allocation of resources into scaling-up has changed dramatically...there is a higher focus on development rather than research now.”* The effect of the PMFM focus on translating research into deliverable technologies is clearly felt at the institutional planning level.

Demonstrable growth in user uptake of AVRDC’s research priorities is spreading through increased small-scale trials, and the next stage of institutional growth is broader adoption. This requirement to power broader adoption of new products and technologies rightly challenges a predominantly research organisation. AVRDC is proud of its network of over 50 implementing partners in 12 countries. DFID and AVRDC should agree on ways to capture adoption data and stories of adoption from AVRDC’s partners as a strategy to understand and replicate successful dissemination approaches.

The core funding provided by DFID has enabled AVRDC to drop smaller projects that were attractive because of available funding and, instead, seek funding for larger projects and commissioned studies. This has led to institutional growth and greater assurance.

CABI: The PMFM “focused our attention”, stated a CABI Senior Manager. DFID core funding through PMFM – importantly linked to key deliverables that were developed mutually between DFID and the centre – catalysed significant institutional growth. Institutional “hardening” or the embedding of systems that power future performance is a bedrock gain attributable to the PMFM. For example, multiple interviews with CABI leadership indicated points such as this: *“We knew that more robust M&E systems were necessary; it is funding through the PMFM that focused us on improving our systems.”* There is evidence that institutional gains in M&E are

flowing downstream to country partners (India and Kenya mobile platforms, for instance) and the downstream spread of a rigorous M&E regimen will increase performance and VfM.

Core funding enabled both DFID and CABI to focus on long-standing institutional issues that might normally be missed in repetitive cycles of project-based funding. Further, as M&E systems improve at the HQ levels and progressively flow downstream to country partners, project performance is likely to benefit from increased M&E rigour ... a difficult-to-attribute yet very real benefit of PMFM.

Interviews suggested trends in CABI-member governments that national systems are increasingly drawing upon CABI scientific knowledge, training, and linkages with the private sector. The open access to information and training offered by CABI is leading national staff to adapt or change priorities to more closely align with CABI priorities. This occurs alongside the extensive consultation processes conducted by CABI to ensure that member countries' needs are at the forefront of the organisation's activities⁵²; the multiplier effect of this expanded knowledge and networking has the potential to positively influence national agricultural priorities and enhance the sustainability of CABI research. Whilst the fact that national systems are increasingly drawing upon CABI resources may not be attributable to DFID funding, that this is happening makes CABI a strong candidate for such funding due to the multiplier effects being realised.

CABI's channels to the private sector and smallholder farmers, which bring useable, practical research to smallholder farmers, are robust and well-proven, particularly through its partner government ministries and implementing partners. CABI has broadly engaged with the private sector, often focusing on a linkage or particular commodity. As a result of past private sector engagement, CABI is now part of multi-national, agro-industry supported, agro-informatics big data initiatives. Agro-informatics uses multiple sources of data to project future crop yields, suggest effective crop management strategies, align production with global supply chains, and use resources of land, water and supplements and IPM strategies for greatest impact.

Core funding through PMFM strengthens CABI's operations, tangentially supporting such new initiatives. As DFID priorities move further toward private sector engagement in agriculture, CABI's advisory role in using agro-informatics to benefit smallholder farmers may hold substantial VfM.

icipe: *icipe's* research outputs have improved in response to key deliverables and the organisation now meets or exceeds research targets. Coupled with increased quality and productivity of research there is an active learning curve within the organisation to overcome bottlenecks that hamper full adoption of technologies. For example, push-pull is constrained by the availability of desmodium seed. Initially, an ineffective scale-up strategy of in-house seed production was attempted and failed. In response, *icipe* contracted with private sector seed companies to produce the seed and link with agricultural input suppliers to speed the scale-up of push-pull.

⁵² The widespread adoption of and satisfaction with the Plantwise initiative is because it responds to a widely-shared need for improved plant health systems but is implemented on a country by country basis in a way that is responsive to and appropriate for the local needs and customs

Core funding gave *icipe* the flexibility to try one approach, see its results, and innovate with another approach with greater potential. At its heart, core funding strengthens *icipe*'s agility to meet the translational challenge of moving research to the end user.

ICIMOD: ICIMOD staff are able to effectively articulate strong benefits of core funding to improved research quality. Points raised during interviews included the improvement of ICIMOD institutional M&E systems that have strengthened research management, results reporting, and dissemination of research to end-users.

Specific mention was made of the ability to complete previously started research that was left unfinished when prior funding was exhausted and the donor did not continue funding. Amongst unfinished research that benefitted from core funding were projects focused on glacier and agricultural research in the Upper Indus Basin and Himalayan Monitoring and Assessments. Further, the Regional Flood Information Systems have been sustained, and are of value to partner countries, since the original donor stopped funding.

Innovation – the ability to take an idea and conduct initial research – has been promoted through the availability of small amounts of core funding without the delays and substantial transaction costs that would be required if restricted funds were being used. This has enabled a degree of institutional agility that was unknown before core funding.

The value for core funding was also expressed by ICIMOD staff commenting that ex-post impact assessments could be conducted with DFID core funding, whereas conventional project funding often missed the opportunity to conduct ex-post impact studies because the grant time frame had expired, the project ended, and the donor had moved on to other priorities.

d. Evaluation Question 6: What progress, if any, have the Centres made towards demonstrating their outcomes and ultimate impacts through improved documentation, internal studies and commissioned evaluations?

VfM findings in this section cover the extent to which the PMFM has contributed to improved documentation, internal and commissioned evaluations to some extent (relevant to EQ6). There are also findings that are relevant to other EQs and as such are drawn upon in relation to the relevant EQs in the main report. These include findings related to deployment of technologies (EQ4) and M&E systems (EQ3).

AVRDC tests new technologies and approaches through small-scale studies, pilots and trials, successfully conducting user surveys and quantitative assessments of productivity and consumer acceptability. This is expected of agricultural research organisations. AVRDC has met the key deliverable of publishing one rigorous impact assessment of a new technology, tomato grafting. Still, it is not clear that rigorous independent research is broadly powering AVRDC's translation of science to broad-scale adoption. Stronger dissemination and end-user uptake strategies are needed to strengthen the demonstrated value of investment in research.

CABI is on track to meet key deliverables for published research, scientific research access, and commissioned studies. M&E strengthening is a work in progress with progressive improvement. M&E was initially delayed by staffing challenges; new impact studies have been commissioned though the results have not yet been published.

Attendance at plant clinics has been consistently lower than anticipated. Market surveys and data analysis is urgently needed to understand the variance in PC attendance, and to further understand the uptake and impact of knowledge gained by attending PCs.

CABI has made concrete suggestions regarding methods to document and to fully understand the gain in technical knowledge achieved through CABI's training of plant doctors. For example, CABI trains plant doctors whose primary employment is providing agricultural extension services. Currently, the benefit to farmers remains undocumented. Use of DFID core funding to document the spin-off benefits attributable to such core funding would strengthen VfM reporting.

CABI demonstrated practical understanding and agility when introducing Plantwise in India where the national systems are well developed with a strong sense that sufficient knowledge is being conveyed by the existing extension services. Rather than addressing the gaps in extension services at a national level, CABI chose to work through local government structures and the agro-input industry to promote proper use of inputs to increase productivity. From a VfM perspective, the potential increased cost and likely slower coverage of extension services through local government is balanced by the effectiveness of working through reception local structures.

icipe: *icipe* documentation and reporting of impacts is progressively improving as noted in the performance Table 10 though still falls short of DFID expectations of rigour. The issue facing *icipe* and DFID is to take the finding of internal studies, apply them, and demonstrate how institutional behaviour has changed.

Further, the auditors' cautionary statements about the need for improved internal systems are cause for attention. It will be important that future DFID funding is closely tied to tangible, mutually agreed upon improvements in management systems. In this case, key research deliverables seem less valuable to the preservation of value for money, than are tangible improvements in research management, financial management and HR management.

ICIMOD: The centre has met many of the research targets set by DFID. The centre has, importantly, worked to improve the flow of scientific research and knowledge downstream to partners and eventual farmer end users through the strengthening of a communication strategy that is robust and multi-layered, and targets multiple audiences with messaging tailored to the audience. In short, it is a creative strategy; future impact studies should be commissioned to focus on the effectiveness of translating ICIMOD research downstream to different end users.

Core funding has enabled a greater volume and quality of research outputs; two factors are highlighted. DFID core funding has come with an agreement between the donor and recipient upon key deliverables; this has been a useful process of dialogue that has been mutual and has informed and focused the recipient. For ICIMOD a key deliverable was increased research output and the centre has used core funding to provide training in research writing; dedicated, funded time for writing; and has coupled funding with a mandate to publish for key staff. This appears to be both a very effective use of core funds, as well as a well thought-out management strategy to meet DFID key deliverables and add demonstrable VfM.

At the same time, DFID has been pushing ICIMOD to strengthen internal M&E systems and staff capacity and ICIMOD remains somewhat behind expectations in this regard. In July 2014,

DFID provided a largely positive review on research outputs, and a somewhat negative review of ICIMOD's approach to strengthening organisational skills for monitoring and impact evaluations. This review resulted in DFID not awarding a performance bonus for 2013.

6. Discussion of findings regarding the effectiveness of the PMFM and its performance component.

All of the International Agriculture Research Centres (IARCs) place strong value on the core funding element for the above reasons. They also identify reduced fundraising costs and the ability to seek larger grants more aligned with priorities due to the organisational stability resulting from core funding. Most Centres note that the dialogue with DFID fostered by the PMFM has been productive and informative; one centre called the DFID dialogue "another learning platform". Not surprisingly one centre that did not receive a performance bonus thought that the dialogue with DFID was one-sided and obfuscating. A second institution – GFAR – whose funding was ended in 2014, thought that DFID applied measurements that were not suited to GFAR. Nonetheless, GFAR appreciated the PMFM and greatly valued the dialogue with DFID until the discontinuation of funding.

Certainly hearing that one funding recipient thought the dialogue with DFID was one-sided, and that another thought the metrics that were applied were not appropriate, is rightly disturbing to the donor. DFID is of the view that extensive consultations between the donor and recipients were systematically undertaken, and that criteria for awarding the performance bonuses were mutually agreed upon, transparent, and clearly communicated.

We believe DFID's assertion of substantial efforts to communicate clear expectations to recipient research centres – and the written communication supports this. At the same time, the persistence and striking consistency of comments from research centres about the lack of clarity for the awarding of a performance bonus – including from a bonus recipient – is also found credible by the review team.

What is going on?

This review is admittedly uncertain, though there is growing evidence that financial bonuses are weaker tools to incentivise improved performance than other non-financial measures. McKinsey & Company (2009) in a brief guidance note to business noted that "Numerous studies have concluded that ... some non-financial motivators⁵³ are more effective than extra cash in building long-term employee engagement.... Many financial rewards mainly generate short-term boosts of energy, which can have damaging unintended consequences."⁵⁴

⁵³ A recent *McKinsey Quarterly* survey underscores the opportunity. The respondents view three noncash motivators – praise from immediate managers, leadership attention (for example, one-on-one conversations), and a chance to lead projects or task forces – as no less or even more effective motivators than the three highest-rated financial incentives: cash bonuses, increased base pay, and stock or stock options (Gibbons 2006).

⁵⁴ John Gibbons, *Employee Engagement: A Review of Current Research and Its Implications*, Conference Board, 2006.

While this report refers to individual performance, the evidence gathered within this evaluation also suggests that it is worthy of consideration in relation to bonus payments applied at an organisational level, such as within the PMFM.

Sound business management practice is aligned with the McKinsey findings noted above, specifically that financial incentive without active positive interaction by management with staff (in this case the IARCs) is much less effective than might be expected.

All Centres interviewed saw value in their interactions with DFID, and every centre interviewed except CABI expressed a desire for greater engagement with DFID in the future. Part of the expressed desire for greater interaction with DFID was a common frustration with the current level of interaction.

If the above is plausible, which we believe it is, perhaps the call for greater interaction between DFID and the research centres is a fundamental finding of this assessment, namely that greater interaction between DFID and the Centres generates greater results, while attracting greater transaction costs. Since performance against targets is a key to assessing VfM in any programme, a programme intervention that drives lower transaction costs at the expense of higher performance is a misunderstanding of VfM. Such an understanding becomes a race to the bottom (of costs) and an acceptance of less than optimum performance.

Several research centres expressed concerns that the criteria for awarding bonus payments are not clear, stating more than once that there are multiple planned deliverables for each centre, but a smaller universe of key deliverables is used to determine performance bonuses. This review understands that DFID rejects that assertion. For some Centres, if not all, the sentiment persists that very good achievement across a multitude of deliverables can be outweighed by lesser progress in areas that DFID sees as “more important”. Greater clarity on the priorities for bonus payment is desired by the IARCs.

Some have suggested that a graduated bonus percentage be aligned with weighted deliverables. We think that simplicity and clarity is required in any funding scheme including a bonus payment. While centres have broadly asked for a graduated bonus, we suggest that linking a bonus payment to weighted priorities is unwieldy and will increase confusion rather than enhance the clarity desired.

The Centres’ concern parallels this review’s conclusion that more benefit from bonus payments could be generated if DFID exercised its “thought leadership” to target the use of bonus payments to the achievement of high priority goals that are mutually set with each centre. This is intended as an additive planning function to prioritise the use of bonus funds to meet centre and DFID priorities. Similar prioritisation of goals could be implemented for some portion of core funding.

In summary, the practice of providing core funding to IARCs and the concept of bonus payments to reward performance is broadly valued. Problems arise when DFID makes value judgements about the quality of research outputs or impact studies that the IARCs disagree with, and the IARCs believe that the quality and depth of engagement by DFID is insufficient (thus undermining the credibility of DFID’s judgement about performance). *“They (DFID) haven’t taken the time to know our operation”* is a sentiment heard more than once.

Seemingly DFID faces a choice of options:

- a) ***Continue the PMFM as is.*** There is insufficient evidence to suggest that the PMFM performance or bonus element has been effective in powering performance in the IARCs to date (only two of six IARCs have consistently received the bonus). This, alongside the wider evidence that monetary incentives are less effective than non-financial incentives in driving performance, leads us to conclude that maintaining the PMFM unchanged is a high risk, low VfM approach. While its core funding is valuable, its overall effectiveness is undermined by the flaws of the 'bonus' element.
- b) ***Adopt a graduated performance bonus*** in order to reward partial achievement of key deliverables. While attractive to most of the Centres, this strategy fails to address a fundamental challenge: the desire for greater interaction with DFID and the evidence that financial incentives without concomitant interaction is seldom the strongest performance motivator. Further, a graduated bonus introduces a new level of complexity with substantial room for misunderstanding, compounding the current lack of clarity. This is a high risk, low VfM strategy, built as it is on a system that is already misunderstood.
- c) ***Reassess the structure of the PMFM whilst preserving core funding.*** DFID rightly wants certain deliverables to derive from its funding, and core payments reduce DFID's transaction costs while giving the IARCs flexibility to operate. DFID's provision of core funding could include specific, measurable targets that are focused on two key areas:
 - i) ***Institutional strengthening*** - DFID's comments on IARC performance often cite the need for improved monitoring and evaluations, greater rigor in published studies, and improved organisational management structures including financial management. While these comments provide direction to the IARCs for future performance, the evidence (of most Centres not being awarded a bonus) suggests that the IARCs would benefit from stronger direction in the use of funds by DFID. We think this is an opportunity for DFID to maintain core funding while allowing the IARCs to use the funding at their discretion, but focused in the general area of institutional strengthening. We do not see the need for pre-approval by DFID of how the IARCs will use core funding; a report on how the funds were used to strengthen the institution should be required and assessed annually.
 - ii) ***Strengthened channels for private sector uptake of IARC products and initiatives*** – The review noted a lack of innovation in the approaches the IARCs have taken to strengthen links to the private sector to improve commercial uptake of IARC products and technologies. There has been a preference for disseminating new technologies through government structures (e.g. Plant Doctor clinics). Where private sector engagement occurs, it is often in response to commercial demand (e.g. AVRDC's dissemination of new varieties). To encourage a more proactive commercialisation of new technologies, a second use of core funding could be to engage the IARCs in a process individually and collectively to improve the pipeline for private sector uptake, for example through the development of a "new product and technology" on-line clearinghouse, pipeline, or other method to promote new technologies for commercial uptake.

d) ***Introduce a voluntary, non-competitive additional payment or “Special Award”*** to replace the bonus element of the PMFM whilst preserving the core funding that is so valuable to the Centres. This would be granted at DFID’s discretion on the basis of innovations by the IARCs that are independent of the core funding, and in areas that DFID would like to accelerate. For example, if core funding has opened up opportunities for scale-up, DFID could make a special award to further invest in that specific opportunity. A Special Award could include the following features:

- Time-limited (i.e. one year) to advance an intervention or strategy that is not yet funded or at a very early stage;
- Possible extension (e.g. of an additional year);
- Co-financing by the IARCs of a certain percentage, to be defined by DFID;
- Parameters to be developed by DFID (purpose, focus, length, award maximum, minimum percentage of co-financing required) and outlined in a brief application form;
- Applications outlining what the award would be used for, and including KPIs, and budget;
- Assessment of applications by an external panel who could also review and recommend whether funding should continue for a second year;
- Annual reporting, including identification of obstacles and ways to overcome them.

The Special Award should not be linked to an IARC’s performance against other deliverables within its core funding. It should be possible for an IARC that fails to fully meet key deliverables for DFID core funding to develop a separate innovative application for a special award. While the normal assessment of capacity to deliver would still apply, and the granting of a SA would not relieve the IARC of the need to meet other key deliverables identified for DFID funding, we consider that the SA should not be linked to performance under core funding. By promoting a rigorous self-analysis of the Special Award results by the IARCs, this could develop valuable data for future investments to follow the Special Award.

The advantages of core funding and a voluntary special award include the preservation of core funding, the preservation of the choice by research centres of how to apply the additional funding (with DFID approval) and limited but increased interaction with DFID in the “special award” component. The voluntary Special Award would remove most of the punitive aspects of the bonus (bonus denial) while maintaining DFID’s control over results (no further special awards until the prior award expectations are fully met).

e) ***Increase interaction with the Centres; align the increased interaction with an iterative process of updates on Key Deliverables performance reporting;***

The advantage of this approach is that the Centres appear to value DFID interaction, are exposed to global best practice, and learn from the interaction. Further, more intensive interaction between DFID and the Centres offers an opportunity to build relationships that can clarify and refine expectations of performance.

The disadvantage of more interaction is increased transaction costs (and staffing requirements) for expected benefits (greater research centre clarity on what constitutes high performance for DFID) that are difficult to quantify or monetise.

This is a moderate risk, and low to moderate VfM strategy to incentivise performance. Risk is somewhat reduced given the evidence from some Centres that higher levels of interaction

with DFID has an apparent effect in spurring stronger performance according to DFID expectations. It is low to moderate VfM because of substantially increased transaction costs, a fact that would be mitigated if centre performance improved substantially. Therefore, this review sees the increased interactions and somewhat increased transaction costs as positive, and of a scope that is controllable.

In conclusion, this review's suggestion is that DFID expends greater effort to engage with IARCs as a means to power greater results – and that this should complement the monetary incentives that are provided to the research centres.

This raises the question of whether DFID's goal of improved performance and reduced engagement is possible? While the Centres universally praise core funding (not a surprise) the Centres also seem to express a broad desire for greater DFID engagement. This sentiment is expressed even by CABI, which was the most regular recipient of bonus payments. Centres that were less successful in bonus awards also expressed the hope for greater engagement with and by DFID.

The desire for greater engagement by DFID combined with the McKinsey evidence that financial incentives without personal engagement seldom produce sustained performance improvement could be interpreted as indicating failure of the PMFM, if the fundamental purpose of the mechanism was to reduce DFID costs. On the other hand, the PMFM accompanied by increased DFID engagement has the potential to power improved performance and bend performance toward DFID priorities in individual centres. This approach – more costly yet potentially powering greater results aligned with DFID priorities – seems the better value for money option.

DFID can further incentivise research centres to achieve targeted results if it is able to expend the additional effort to continue positive dialogue with Centres through the PMFM; to exercise thought leadership by identifying high priority goals for each centre; and to develop greater internal clarity about how to measure performance of each centre. As such, the PMFM will be a significant value-adding innovation. Both this and the earlier suggestion that DFID provide core funding accompanied not by a “bonus” but by a “Special Award” are discussed further in Chapter 5 (Lessons Learned and Recommendations). The evaluation is of the view that the “Special Award” route is preferable to trying to further incentivise research centres with bonus payments as outlined above.

i) VfM Monitoring Plan

Measuring the VfM of investments in research is proving to be difficult, as the results of scientific research require appropriate channels to facilitate translation of research into end-user benefits. Measuring results to the end user is challenged by several factors:

- (1) the translational channels (government ministries, private sector, NGOs and INGOs, farmer associations) are not within the control of research bodies; results depend upon third parties;
- (2) long-term research needs may not have immediate markets making customary output performance uptake metrics less meaningful; and

- (3) the catalysing effect of agro-industry panels, government and donor fora, and the feedback loops from end users to research institutes are often missed in output-focused VfM assessments.

There is a need to refine VfM measurement strategy for research. DFID is making some progress, though more needs to be done to codify and approve a VfM measurement framework for research.

The programme goal stated in the Business Case is:

... agricultural growth that contributes to poverty reduction and improvements in nutritional status. DFID will scale up support to high performing international agricultural research centres, linking funding to delivery in order to leverage higher performance, particularly around scaling-up and robust systems for impact measurement.

In relation to this goal, current strengths and weaknesses of current VfM measurement in the project include:

Weakness

- Centres are unclear what to measure to demonstrate VfM; greater guidance is needed to make efficient use of VfM reporting;
- DFID itself seems unclear about how to measure VfM in research, at various points seeking data on carbon footprint and environmental impact; gender policy; financial management system strength; staffing structure; overhead vs operations costs; results against key deliverables (some of which are quantifiable and some qualitative); and impact assessments. Most of these are potentially useful VfM indicators; the missing element is understanding which constellation of elements is best measured for each project.
- Because the metrics of VfM in centre research are unclear, some Centres believe that the criteria for performance measurement are arbitrary.
- The focus on numbers of published articles is appropriate though an associated metric on how research is used downstream would make a VfM analysis more interesting and informative.

Strengths

- The focus on developing management and systems strengthening is of great value. The way Centres report the benefit of stronger management systems could be improved with a small number of indicators showing system strengthening.
- Identifying key deliverables for each centre is appreciated by the Centres. There is some confusion about the importance of key deliverables vs other milestones in each centre's logframe which are also used to determine the performance bonus.
- The focus on impact assessment is valuable and should be retained if the time frame for ex-post assessment is appropriate to the funding schedule.

DFID should engage a short-term consultancy to develop VfM criteria that represent useful measures of economy, efficiency and effectiveness. The following is a sketch of the kind of metrics that might power increased VfM.

Certainly no single set of VfM criteria is applicable to all IARCs, and this VfM framework is indicative only. The point is that as DFID seeks to move agricultural research to a more rigorous, assessed and translational level, new metrics of VfM analysis need to be developed.

New VfM criteria might consider or include:

Economy:

- Percentage of centre research that is linked to universities, government, or private sector and that benefits from in-kind support that strengthens research at subsidised cost
- Degree to which research is directly related to an identified commercial or government application, and there is evidence of interest on the part of an entity that has capacity to translate research into practice which is an indicator of a potential streamlined translational channel

Efficiency:

- Funding for specific research lines; >1 donor for a research initiative is an indicator of funding efficiency and leverage
- Percentage of current research that is to be presented at a regional or global forum that includes private sector attendees, and indicator of potential commercial use and consequent broad availability
- Time saved (or increased) for farmer unit by new technology

Effectiveness:

- Number or percentage of current research that is already linked with private sector or government for translation and widespread adoption
- Increase in productivity per unit or HH income as a result of a pilot phase of a new technology or product; increase in same for widespread adoption
- Value of time saved by new technology

Equity

- Number of publications and research lines lead-authored by women
- New technologies impact on lives of women; new technologies available to all citizens;
- Evidence of improved centre management systems (e.g., HR staffing trends show reduced levels of vacancies over time).

Annex 7: Report on Other Donors' View of DFID's PMFM

The evaluation addresses seven core evaluation questions of which the second is: "What has been the reaction of other donors to DFID's Performance Management Funding Mechanism (PMFM) and, in their judgement, how effective to date is this mechanism proving to be?"

A list of key donors to the five Centres under evaluation was drawn up and a request sent to the financial officers of the five Centres in order to confirm and augment this list of donors. Centres were very helpful in providing this information including information about contact persons at their respective "Other donors".

A questionnaire was designed and sent to the three contact persons from SDC, SIDA and EC suggested by DFID and also to contact persons at "Other donors" as informed by the Centres: GIZ, USAID, USDA, ACIAR, DGIS, Bill & Melinda Gates Foundation, AGROPOLIS Foundation, Biovision, IDRC and the Ministry of Foreign Affairs, Norway. It was not considered relevant to send the questionnaire to the Government of the Republic of China, which provides a considerable amount of funding to AVRDC. The questionnaire can be found in Annex 2. Key informants from "Other funders" are classified as Category 3 in this evaluation.

The six questions aim at finding out whether "other donors" know about the PMFM (question 1) and their perception of possible conflicts (question 2), positive or negative impacts (question 4) and whether they consider PMFM to be good practice (question 5). The questionnaire further requests information as to whether there are any coordination agreements in place at present (question 3) and whether the respondents consider future donor alignment to be possible (question 6).

Some respondents did not complete all the questions if they had no knowledge of the PMFM.

The survey did not involve a large sample size and sampling was more purposive than random selection.

As a follow-up to responses to the questionnaire, the option of direct contact by telephone or Skype was offered, either to clarify points or to gain a deeper insight into the responses, but this has not been used.

Results of the questionnaire

a. Knowledge of the PMFM (question 1)

In general, the key donors of the five Centres have heard of the PMFM; whether "other donors" have heard about the PMFM seems to be very dependent on personal relationships. Some members of staff at "other donors" have personal contacts in DFID and have been informed about the mechanism. It would also seem that some information has been provided through inter-donor communication or centre management information. This is the case for the Executive Secretary of the Association of International Research and Development Centers for Agriculture (AIRCA) of which four of the five Centres (not GFAR) are members.

A special case is the “Silent Partnership Agreement” which SDC has with DFID to provide funding for *icipe*. The PMFM was negotiated without involvement of SDC, although SDC did receive a copy of the final agreement between DFID and *icipe*.

b. Perception of possible conflicts (question 2)

No respondents have knowledge of any conflict between their own funding mechanism and the PMFM as operated by DFID.

According to information SDC has received from *icipe* the “going together” of DFID and SDC has supported them in their effort to increase efficiency and takes the burden off administration.

According to the EC, withdrawal of DFID core funding to GFAR has impacted on outputs foreseen in GFAR’s Medium Term Plan, but there has been no direct conflict with funding mechanisms as used by the EC.

c. Positive or negative impacts (question 4)

As a number of respondents are not aware of the PMFM they have not responded to this question. Respondents have evidently understood impact to refer to either impact of the research or impact on centre management.

It was mentioned that the PMFM helps Centres achieve their missions so, therefore, has a positive impact.

In general terms, there is a perception that the DFID PMFM is a clear incentive for the research organisation to be result- and performance-oriented and to comply with DFID’s “rules of the game” for funding support. It is also a chance for the institution to strengthen its management accordingly.

SDC was somewhat surprised that DFID negotiated the PMFM without informing SDC beforehand, also in view that the PMFM with its substantial performance payment was influencing *icipe*’s research and research policy. As far as SDC knows the Board was also not involved. Nevertheless, the PMFM is considered a useful instrument to stimulate research and the scaling-up of results. However, care must be taken that there is not too much focus on quantitative results.

The PMFM is well suited to projects with well-defined tangible deliverables, and is a transparent way of rewarding good performance. It is less well suited to process-oriented institutions and ones that need to be flexible to respond to new challenges and opportunities that are not always predictable in advance. There may be a danger of creating perverse incentives to deliver easily measurable outputs at the expense of more strategic work or risky research.

d. PMFM to be good practice (question 5)

As a number of respondents are not aware of the PMFM they have not responded to this question.

In general terms SDC feels PMFM is good practice, but that it would be even better if it were a shared and harmonised practice among all the major donors of the centre.

SIDA has heard from *icipe* that PMFM encourages staff to perform better

The PMFM is well suited to some organisations and projects, but less so to others (similar to responses to question 4).

e. Coordination agreements (question 3)

In general, there are no coordination agreements, although the CABI Development Fund and the Plantwise Donor Forum provide some level of coordination.

In recent years, ICIMOD has elaborated a draft Joint Funding Agreement (JFA) which all donors are expected to sign. However, the JFA has not yet been signed as all parties have yet to agree on the contents.

GFAR does have a Donor Support Group, but as DFID no longer supports GFAR, it is not a member of the group. However, DFID is kept informed as an interested party.

f. Donor alignment in the future (question 6)

There should certainly be a regular exchange between the major donors with the aim of donor alignment and harmonisation of funding and reporting procedures. So in principle there is consensus on donor alignment especially between like-minded donors. However, this depends on being a core donor or a project donor. One donor should take the lead and then meet to discuss and formulate a strategy and implementation plan on alignment. The elements for donor alignment may already be in place. However, it may be difficult to obtain complete agreement between donors on methods and criteria. Indeed, donors are bound by the priorities of their governments or by their founders (in the case of foundations) and differing governments.

However, one response noted that while alignment to the needs of the poor and to local research priorities is important, what might be useful is some sort of donor coordination and information exchange and intelligence sharing. Flexibility is important to respond to specific opportunities based on each donor's programming strategies and approaches. One single approach to funding research would not work.

It is possible that a new conceptualisation of alignment is needed. Initiatives such as AIRCA were suggested, although this is an association of centres rather than donors.

Evaluating impact of multi-donor support can provide new challenges.

SDC would be interested in considering donor alignment in the case of the Plantwise Donor Forum and suggest that DFID should bring it up with major donors at the next CABI Review Conference and similarly with *icipe*.

General conclusion

It is mainly the key donors of the five Centres who know about the PMFM and information is passed on through personal contacts rather than being institutional information.

PMFM is generally considered good practice and encourages Centres at both staff and institution level to perform better and is especially well suited to projects with well-defined tangible deliverables, and less well suited to process-oriented institutions. Awareness of creating incentives balanced between easily measurable outputs and more strategic work is important.

Whilst there do not appear to be any obvious conflicts between the PMFM and other funding mechanisms, there are in general no actual coordination agreements between DFID and “other donors” in terms of funding systems. The CABI Development Fund and Plantwise Donor Forum represent coordination mechanisms.

There is consensus on the value of and need for donor alignment. This will require flexibility and one donor taking the lead. It is interesting that coordination and collaboration covers more efficient use of funds through aligned policies and harmonised reporting, etc. but also cooperation in terms of exchange of information and putting results into practice more quickly. Investments in “slim” structures may lead to faster research results compared with multi-donor trust funds of the World Bank into the CGIAR research programs.

Information about donor

	AVRDC	CABI	GFAR	ICIMOD	<i>icipe</i>
DFID	X	X	X	X	X
SDC	(X)	X	X	X	X
SIDA				X	X
GIZ	X				X
EC		X	X		X
USAID	X				
USDA		X			
ACIAR		X			
DGIS			X		
Government of Republic of China	X				
Bill & Melinda Gates Foundation		X			
Agropolis International			X		
Biovision					X
IDRC					X
Min. of Foreign Affairs, Norway				X	
Total excl. DFID	1/3	3/5	3/4	2/3	6/6

☒ = response received (X) project support (i.e. restricted)

ACIAR Australian Centre for International Agricultural Research

DFID Department for International Development, UK

DGIS Directorate-General for International Cooperation under Ministry of Foreign Affairs of Netherlands

EC European Commission

IDRC International Development Research Centre, Canada

SDC Swiss Agency for Development and Cooperation

SIDA Swedish International Development Cooperation Agency

USAID United States Agency for International Development

Annex 8: List of stakeholders consulted

CABI (Wallingford, UK, and Nairobi, Kenya)

Trevor Nicholls, Chief Executive Officer

Carol McNamara, Executive Director – Commercial

Ian Barry, Chief Financial Officer

Andrea Powell, Executive Director – Publishing

Neil Macintosh, HR Director

Joan Kelley, Executive Director Global Operations

Fraser Norton, Programme Manager, Strategic Business Development – Mobile

Carol Steel, Project Manager – project process oversight, M&E, gender

Rob Sloley, Director of Finance

Ulli Kuhlmann, Regional Director CABI Europe (Switzerland)

Shaun Hobbs, Director, Plantwise Knowledge Bank

Phil Abrahams, Strategic Business Development Director

Martin Parr, Programme Manager

Elizabeth Dodsworth, Global Director, Knowledge Management

Dennis Rangi, Executive Director for International Development

Washington Otieno, Plantwise Programme Team leader

Joseph Mulema, Plantwise Programme staff

David Onyango, Plantwise Programme staff

Willis Ochilo, Plantwise Programme staff

Peter Kananja, Plantwise Programme staff

Elisabeth Mutinda, Plantwise Programme staff

Dr Sharbendu Barnejee, Global Director, Mobile Programme, India

Lucy Karanja, Africa Mobile Programme team

Joseph Mulupi, Africa Mobile Programme team

Dannie Romney, Global Director, Knowledge for Development

Rose Kamau, Ministry of Agriculture staff

Miriam Otipa, Ministry of Agriculture staff

Joshua Oluyali, Ministry of Agriculture staff

Morris Akiri, Regional Director

Abdillahi Alawy, Global Director, Monitoring and Evaluation

GFAR (Rome, Italy)

Mark Holderness, Executive Secretary

Pierluigi Masciotta, Finance Officer

Fiona Chandler, GFAR Programme Delivery Manager

icipi (Nairobi, Kenya)

Segenet Kelemu, Director General

Christopher Prideaux, Director of Research and Partnership

Gatigwa Kimana, Director of finance and administration

Sunday Ekesi, Principal Scientist, Member of the Senior Management Committee

Baldwyn Torto, Principal Scientist, Member of the Senior Management Committee

Annah Njui, Grants Manager

Rosa Murithi, Office and Programme Manager

Eustace Mbutia, Manager General Accounting

Hippolyte Affogon, Social Science Unit Head

Beatrice Murithi, Social Science Unit staff

Evelyn Nguku, Scientist

Zeyaur Khan, Principal Scientist

Jimmy Pittchar, Scientist

Jean Maniania, Scientist

Wilber Lwande, Scientist

Alfred Juma, Heifer – Kenya, Programme Advisor for Western Kenya

Ngugi Ticha, Ministry of Agriculture (Kilifi County)

Jaqueline Mutende, Ministry of Agriculture (Embu County)

J.J. Anyango, KARLO, HCRI, Thika (Muranga)

Clement Ng'orianreng', Kenya Forestry Service, Karura

Henry Wainwright, Director Real IPM

May Obade, County Director of Agriculture, Ministry of Agriculture, Kisumu County

Henry Ngare, Embu Mango Farmer

James Ligare, Organising Secretary, Muliro Farmers' Group

Paulin Nana, PDF

Damaris Matoke, PDF

AVRDC (Tainan, Taiwan)

Dyno Keatinge, Director General

Jackie Hughes, Deputy Director General – Research

Yin-fu Chang, Deputy Director General – Administration and Services

Nagaraj Inukonda, Director of Human Resources

Dirk Overweg, Director of Finance

Pepijn Schreinemachers, Agricultural Economist – Impact Evaluation Unit

Maureen Mecozzi, Head, Communications and Information

Andreas Ebert, Genebank Manager

Peter Hanson, Plant Breeder

Ray-yu Yang, Nutritionist

Greg Luther, Technology Dissemination Specialist

Jaw-Fen Wang, Plant Pathologist

Cristina Caltagirone, Training Specialist

Lawrence Kenyon, Plant Pathologist

Wen-Shi Tsai, National Chiayi University, Dept of Plant Medicine, Associate Professor

Wendy Y. Wu, Known-you Seed Co. Unit Leader Molecular Breeding Lab.

Candy Lee, Known-you Seed Co. Unit Leader Molecular Breeding Lab.

Dennis Wang, Tainan District Agric. Research and Extension Station, Council of Agriculture, Executive Yuan – Director

Doung-Liang Lin, Tainan District Agric. Research and Extension Station, Council of Agriculture, Executive Yuan – Secretary

Jung-Jui Cheng, Tainan District Agric. Research and Extension Station, Council of Agriculture, Executive Yuan –Deputy Director

ICIMOD (Kathmandu, Nepal)

David Molden, Director General

Farid Ahmad, Head Strategic Planning, Monitoring and Evaluation

Shekhar Ghimire, Director Administration and Finance

Basanta Shrestha, Director Strategic Cooperation, Regional Coordinator

Nand Kishore Agrawal, Programme Coordinator, HICAP Initiative

Anja M. Rasmussen, Senior Manager, Knowledge, Management & Communication

Golam Rasul, Theme Leader, Livelihoods, Senior Economist

Dhrupad Choudhury, Regional Programme Manager, Adaptation to change

Liesbeth Segaar, Head of Human Resources
Rucha Ghate, Senior Governance Specialist
Eklabya Sharma, Director Programme Operations
Shah Ghulam Muhammad, Impact, Monitoring and Evaluation Specialist
Shahriar M Wahid, Coordinator, Koshi Basin Initiative
Anu Joshi Shrestha, Value Chain Development Analyst
Aditi Mukherji, Theme Leader, Water and Air
Sushil Pandey, Knowledge Management and Communication Specialist for Development ICT
Birendra Bajracharya, Regional Programme Coordinator
Faisal M Qamer, Remote Sensing Specialist
MSR Murthy, Theme Leader, Geospatial Solutions
Prof. Wu Ning, Theme Leader, Ecosystem Services
Shib Nandal Prasad Shah, Project Director, Ministry of Agriculture Development
Ms Neeru Dahal, Director Agriculture Extension Directorate, Department of Agriculture, Nepal
Bikram Rana, Team Leader, Building Effective Water Governance in Asian Highland, HELVETAS, Nepal
Keshab Datta Joshi, Programme Director, CEAPRED Nepal
Kabir Ratna Sthapit, Program Officer, Asia Network for Sustainable Agriculture and Bio resources (ANSAB), Nepal
Krishna Thagunna, Chairperson, Social Awareness and Development Association (SADA), Baidati, Nepal

Counterfactual analysis: ICRA and CATIE

Richard Hawkins, ICRA (Wageningen, the Netherlands), Director General
John Beer, CATIE (Turrialba, Costa Rica), Director General

DFID

Rachel Lambert
Andrew Shaw
Alan Dangour
Alasdair Swift

Annex 9: List of documents and data

	Title of Document	Centre
1	Self-Assessment for DFID (Annex 1)	AVRDC
2	DFID response to AVRDC about their self-assessment	AVRDC
3	Multi-year performance related funding	AVRDC
4	Annual Report 2013	AVRDC
5	Annual Report 2012	AVRDC
6	Annual Report 2011	AVRDC
7	Prosperity for the poor and health for all: Strategic Plan 2011-2025	AVRDC
8	Medium Term Plan 2012-2014	AVRDC
9	Medium Term Plan 2013-2015	AVRDC
10	Medium Term plan 2014-2016	AVRDC
11	The World Vegetable Center's Achievements 2013	AVRDC
12	The World Vegetable Center's Achievements 2012	AVRDC
13	The World Vegetable Center's Achievements 2011	AVRDC
14	Financial Statements for 2013 with report of independent auditors	AVRDC
15	Financial Statements for 2012 with report of independent auditors	AVRDC
16	Financial Statements for 2011 with report of independent auditors	AVRDC
17	AVRDC 2011-2012 Performance Review Report to DFID	AVRDC
18	AVRDC2012-2013 Annual Review Presentation	AVRDC
19	AVRDC2012-2013 Performance Review to DFID	AVRDC
20	AVRDC2013-2014 Performance Review Report to DFID	AVRDC
21	List of AVRDC Staff Publications 2013-2014	AVRDC
22	Self-Assessment for DFID (Annex 2) with edits	CABI
23	Self-Assessment for DFID (Annex 2) final document	CABI
24	CABI Results Framework for DFID, 2012-2014	CABI
25	DFID response to CABI about their Self-Assessment	CABI
26	UK Annual Report 2013	CABI
27	CABI in review 2013	CABI
28	CABI Annual Report and Financial Statements 2013	CABI
29	Swiss Centre Annual Report 2013	CABI
30	CABI Review Conference 2013	CABI
31	Swiss Centre Annual Report 2012	CABI
32	Swiss Centre Annual Report 2011	CABI
33	CABI in Review 2012	CABI
34	CABI Annual Report and Financial Statement 2011	CABI
35	CABI Annual Report and Financial Statements 2012	CABI

	Title of Document	Centre
36	CABI in Review 2011	CABI
37	Annual Performance Review 2012-2013	CABI
38	CABI 2012-2013 Performance Review to DFID	CABI
39	CABI 2013-2014 Annual Performance Report	CABI
40	Adjusted Key Deliverables and Milestones	CABI
41	Performance Indicators 2012: DFID Progress Report	CABI
42	CABI Annual Performance Review 2013-2014	CABI
43	Annual Review	DFID General
44	Support to International Agriculture Research that benefits poor people	DFID General
45	Operational plan 2011-2015 DFID Research and Evidence Division	DFID General
46	Key Deliveries by Centre	DFID General
47	Logical Framework Template Support to International Agricultural Research that benefits poor people	DFID General
48	Annual Review 2013	DFID General
49	Business Case	DFID General
50	Self-Assessment for DFID (Annex 1)	GFAR
51	Self-Assessment for DFID (Annex 1) with additions	GFAR
52	GFAR Summary of Work (2011-2012)	GFAR
53	GFAR Results Framework for DFID	GFAR
54	DFID response to GFAR progress assessment	GFAR
55	Note of Meeting Held between DFID and GFAR	GFAR
56	DFID response to GFAR about their Self-Assessment	GFAR
57	Financial Report and Declaration 2013	GFAR
58	Financial Report Account – Cost Analysis	GFAR
59	Management of Funds and Travel Arrangement for GFAR – Statement of Costs	GFAR
60	Combined Expenses from 1 Jan to 31 Dec 2013	GFAR
61	Steering Committee Meeting Montpellier, France	GFAR
62	GFAR Annual Report 2012	GFAR
63	GFAR Annual Report 2011	GFAR
64	A Review of the Global Conference of Agricultural Research for Development	GFAR
65	GFAR Governance Review	GFAR
66	Shaping the Future Together: Medium Term plan 2013-2016	GFAR

	Title of Document	Centre
67	The GCARD Roadmap	GFAR
68	GFAR 2011 Presentation	GFAR
69	GFAR Delivery against Key Deliverables and Milestones 2011-2012	GFAR
70	GFAR 2012-2013 Performance Review	GFAR
71	Second Medium-Term Action Plan 2008-2012	ICIMOD
72	ICIMOD Deliverables, Indicators, and Milestones	ICIMOD
73	Self-Assessment response to DFID Questions	ICIMOD
74	Self-Assessment report for DFID	ICIMOD
75	ICIMOD Annual Report 2010	ICIMOD
76	Mid Term Review of the ICIMOD Strategic Framework 2007 and Medium Term Action Plan 2008-2012	ICIMOD
77	DFID response to ICIMOD about their Self-Assessment return	ICIMOD
78	Strategic Framework 2008	ICIMOD
79	Strategic Framework Revisited 2012	ICIMOD
80	ICIMOD Annual Report 2011	ICIMOD
81	A Strategy and Results Framework for ICIMOD	ICIMOD
82	ICIMOD Gender and Equity policy 2013	ICIMOD
83	Mid Term Review 2008-2012	ICIMOD
84	ICIMOD Annual Report 2012	ICIMOD
85	ICIMOD Annual Report 2013	ICIMOD
86	Grant Proposal for ICIMOD	ICIMOD
87	ICIMOD 2012-2013 Performance Review Report to DFID	ICIMOD
88	ICIMOD 2013-2014 Performance Review Report to DFID	ICIMOD
89	Environmental Policy	<i>icipe</i>
90	A Guide to Environmentally Conscientious Laboratory Operations	<i>icipe</i>
91	The Occupational Health and Safety Policy	<i>icipe</i>
92	Letter from <i>icipe</i> to DFID (Multi-year funding and performance monitoring)	<i>icipe</i>
93	Activities and Impact of Major Projects 1996-2006	<i>icipe</i>
94	DFID response to <i>icipe</i> about their Self-Assessment	<i>icipe</i>
95	Self-Assessment Framework (Annex 1)	<i>icipe</i>
96	An Outcome Report of the Tracer Study of the Grantee Beneficiaries	<i>icipe</i>
97	Biennial Report Highlights 2010-2011	<i>icipe</i>
98	Demonstrating Excellence 2007-2012	<i>icipe</i>
99	Final Evaluation and 2014-2020 Programming	<i>icipe</i>
100	External Evaluation of the Biovision	<i>icipe</i>

	Title of Document	Centre
101	Meeting the needs of a changing world: <i>icipe</i> 's vision and strategy 2007-2012	<i>icipe</i>
102	<i>icipe</i> 's results-based management framework 2011-2013	<i>icipe</i>
103	Capacity building and institutional development programme – Final evaluation and programming	<i>icipe</i>
104	Publications Report November 2012-October 2013	<i>icipe</i>
105	Publications Report November 2011-October 2012	<i>icipe</i>
106	Publications Report November 2010-October 2011	<i>icipe</i>
107	External R&D Review 2002-2005	<i>icipe</i>
108	<i>icipe</i> 2012-2013 Performance Review Report to DFID	<i>icipe</i>
109	<i>icipe</i> 2011-2012 Performance Review Report to DFID	<i>icipe</i>
110	<i>icipe</i> Key Deliverables and Milestones 2011-2015	<i>icipe</i>
111	<i>icipe</i> Annual Report to DFID 2013-2014 (presentation)	<i>icipe</i>
112	<i>icipe</i> Annual Report to DFID 2013-2014	<i>icipe</i>
113	Study on Options for DFID	DFID General
114	Ranking of the Nine Organisations against the Criteria and Options for support with Funding Levels	DFID General
115	Study On Options for DFID Annex 5	DFID General
116	Performance Based Reporting System (Annex 4)	DFID General
117	Non-CGIAR Assessment Framework	DFID General
118	Covering Note to the Directors of Non-CGIAR Organisations	DFID General
119	Medium Term Plan 2013-2015	AVRDC
120	Medium Term plan 2014-2016	AVRDC
121	Strategic Plan 2011-2015	AVRDC
122	Theme Breeding Logframe MTP 2015-2017	AVRDC
123	Theme Consumption Logframe 2015-2017	AVRDC
124	Theme Germplasm Logframe 2015-2017	AVRDC
125	Theme Production Logframe 2015-2017	AVRDC
126	New MOU with Tanzania	AVRDC
127	MOA with Kasetsart University on the establishment of AVRDC-ARC	AVRDC
128	MOU with JIRCAS, Japan	AVRDC
129	Agreement of Cooperation with CIRAD, INRA and ORSTOM, France	AVRDC
130	MOU with EBCL-USDA, USA	AVRDC
131	MOU between AVRDC-ARC and Myanmar	AVRDC
132	MOU with MAAFLFS, Myanmar	AVRDC
133	MOU with DPRK (North Korea)	AVRDC
134	Agreement with the Royal Norwegian Ministry of Agriculture and Food	AVRDC
135	MOU with IRAD, Cameroon	AVRDC

	Title of Document	Centre
136	MOU with Liliana Dimitrova Horticultural Research Institute, Cuba	AVRDC
137	Hosting Agreement between Mali and AVRDC – English Draft	AVRDC
138	Hosting Agreement between Mali and AVRDC (Establishment of Sub regional Office for WC Africa, in Bamako, Mali)	AVRDC
139	MOU with SAIC, Qatar (2010-2015)	AVRDC
140	MOU with ADFCA, UAE	AVRDC
141	MOU with NARC, Nepal	AVRDC
142	MOU with MAF, Oman	AVRDC
143	MOU with TACTRI, Taiwan	AVRDC
144	Amendment 1 to MOU with TACTRI, Taiwan	AVRDC
145	MOU with AFACI, Korea	AVRDC
146	MOU with PARC, Pakistan	AVRDC
147	MOU with BARI, Bangladesh	AVRDC
148	List of MOUs and MOAs	AVRDC
149	MOU with CATIE, Costa Rica	AVRDC
150	MOU with Caribbean Agricultural R&D Institute (CARDI)	AVRDC
151	MOU with Internal Atomic Energy Agency, Austria	AVRDC
152	MOU with IFDC, USA	AVRDC
153	MOU with <i>icipe</i> , Kenya	AVRDC
154	MOU with Nagarjuna Agricultural R&D Institute	AVRDC
155	MOU with CABI, UK	AVRDC
156	0041 – Agreement for Cooperation with WARDA, Ivory Coast	AVRDC
157	MOU with IRRI, Philippines	AVRDC
158	MOU with IDE, USA	AVRDC
159	MOU with IPGRI, Italy	AVRDC
160	MOU with PFU-ICARDA	AVRDC
161	MOU with IFDC, USA	AVRDC
162	MOA with ICRISAT (for hosting of AVRDC-RCSA, 2011-2016)	AVRDC
163	MOA with Secretariat of the Pacific Community , Fiji	AVRDC
164	MOU with Enza Zaden, the Netherlands	AVRDC
165	MOU with Clover Seed, Hong Kong	AVRDC
166	MOA with ICRISAT, India (For USAID-Vegetables for Indonesia Project)	AVRDC
167	MOA with IGZ, Germany	AVRDC
168	MOU with Lal Teer Seed Ltd, Bangladesh	AVRDC
169	MOU with AFSTA, Kenya	AVRDC
170	MOU with HKI, USA	AVRDC
171	MOA with MPFI, Philippines	AVRDC
172	Agreement with IITA (hosting AVRDC for Humidtropics project)	AVRDC
173	Agreement with ICRAF (hosting AVRDC in Hanoi)	AVRDC

	Title of Document	Centre
174	MOU with SNV, Netherlands	AVRDC
175	MOU with AARDO, India	AVRDC
176	MOU with GAIN, Switzerland	AVRDC
177	MOU with IITA, Nigeria	AVRDC
178	MOU between AIRCA members	AVRDC
179	AVRDC Budget and Expenditure	AVRDC
180	AVRDC Financial arrangement with the private sector	AVRDC
181	AVRDC Funding composition – donors and amount	AVRDC
182	AVRDC Organization Chart -2010	AVRDC
183	AVRDC Organization Chart -2011	AVRDC
184	AVRDC Organization Chart -2012	AVRDC
185	AVRDC Organization Chart -2013	AVRDC
186	AVRDC Organization Chart -2014	AVRDC
187	Staffing by levels since 2010	AVRDC
188	IRS, Number of staff by discipline	AVRDC
189	Organization Development Initiatives	AVRDC
190	Impact assessment of tomato grafting in Vietnam	AVRDC
191	The mung bean transformation	AVRDC
192	Annual Report 2011	AVRDC
193	Annual Report 2012	AVRDC
194	Annual Review 2013	AVRDC
195	2007 EPMP Recommendations and AVRDC's response	AVRDC
196	2007 EPMP Report	AVRDC
197	2011-08-15 AVRDC Response 1	AVRDC
198	2011-08-15 AVRDC Response 1 (attachment)	AVRDC
199	2011-08-19 – AVRDC Response 2	AVRDC
200	2011-08-26 – AVRDC Response 3	AVRDC
201	2011-08-26 – DFID's reply to AVRDC	AVRDC
202	2011-08-30 – AVRDC's reply to DFID	AVRDC
203	2011-09-16 – AVRDC response 4	AVRDC
204	2011-10-03 – AVRDC reply to DFID	AVRDC
205	2011-10-11 – DFID's reply	AVRDC
206	2011-10-11a – DFID's reply (attachment)	AVRDC
207	2011-10-14 – AVRDC response 1	AVRDC
208	2011-10-31 – AVRDC response 2	AVRDC
209	2013-01-31 – DFID letter re Annual Review Support to International Agricultural Research – Feedback	AVRDC
210	2013-02-04 – AVRDC's reply to DFID	AVRDC
211	2013-05-01 – DFID Letter re AVRDC Annual Review 2012-2013	AVRDC

	Title of Document	Centre
212	2013-06-19 – Documents requested during the AVRDC Annual Review 2012-2013	AVRDC
213	2013-08-22 – DFID Letter re 2012 Annual Review	AVRDC
214	2013-08-26 – AVRDC's response	AVRDC
215	2014-04-02 – DFID Letter re 2013-2014 Annual Performance Assessment reporting form	AVRDC
216	2014-05-16 – DFID Request for Additional Information	AVRDC
217	2014-05-27 – AVRDC's response	AVRDC
218	2014-05-27c – Answer 2b – Questionnaire Household food intake India	AVRDC
219	2014-05-27h – Answer 4b – Questionnaire (English) – Safer vegetable production India	AVRDC
220	2014-05-25i – Answer 4c – Questionnaire (Hindi) – Safer vegetable production India	AVRDC
221	2014-05-27k – Answer 5b – Questionnaire (English) – Home gardens Bangladesh	AVRDC
222	2014-05-27l – Answer 5c – Questionnaire (Bangla) – Home gardens Bangladesh	AVRDC
223	2014-06-07 – AVRDC DFID Meeting – AVRDC response 1	AVRDC
224	2014-06-11 – AVRDC DFID Meeting – AVRDC response 2	AVRDC
225	2014-06-13 – AVRDC DFID Meeting – AVRDC response 3	AVRDC
226	2014-06-13 – AVRDC DFID Meeting – AVRDC response 4	AVRDC
227	2011-08-19a – AVRDC response 2 (attachment)	AVRDC
228	2011-08-26a – AVRDC response 3 (attachment)	AVRDC
229	2011-09-26 – DFID Response to AVRDC about their Self-Assessment Return	AVRDC
230	2011-10-03a – Attachment 1	AVRDC
231	2011-10-03b – Attachment 2	AVRDC
232	2011-10-14a – AVRDC response 1 (attachment)	AVRDC
233	2011-10-31a – Attachment 1	AVRDC
234	2011-10-31b – Attachment 2	AVRDC
235	2011-10-31c – Attachment 3	AVRDC
236	2012-01-12 – Letter outlining DFID support to AVRDC through Multi-Year Performance Related Funding	AVRDC
237	2012-06-06 – Letter to AVRDC about Inaugural Performance Meeting	AVRDC
238	2012-08-02 – DFID Performance Assessment letter to AVRDC	AVRDC
239	2013-05-01a – DFID Letter re AVRDC Annual Review 2012-2013 (attachment)	AVRDC
240	2013-06-19b – Attachment 2 ME Framework	AVRDC
241	2013-06-19c – Attachment 3 – School vegetable gardens	AVRDC

	Title of Document	Centre
242	2013-07-29 – DFID Performance Assessment letter to AVRDC	AVRDC
243	2014-05-27a – Answer 1 – Study protocol Bitter melon nutritional analysis	AVRDC
244	2014-05-27b – Answer 2a – Study protocol – Household food intake India	AVRDC
245	2014-05-27d – Answer 3a – Study protocol (English) – Mali nutrition survey	AVRDC
246	2014-05-27e – Answer 3b – Study protocol (French) – Mali nutrition survey	AVRDC
247	2014-05-27f – Answer 3c – Questionnaire et guide (French) – Mali nutrition survey	AVRDC
248	2014-05-27g – Answer 4a – Study protocol – Safer vegetable production India	AVRDC
249	2014-05-27j – Answer 5a – Study protocol – Home gardens Bangladesh	AVRDC
250	2014-05-27m – Answer 6a – Evaluation report of Jharkhand project site India	AVRDC
251	2014-05-27n – Answer 6b – Manuscript – Effect of training in home gardens Bangladesh	AVRDC
252	2014-06-07a – Attachment (AVRDC opening remarks)	AVRDC
253	2014-06-13 – AVRDC DFID Meeting – AVRDC response 4a	AVRDC
254	2014-07-28 – DFID Performance Assessment letter to AVRDC	AVRDC
255	2012-06-27 – AVRDC's 2011-2012 Performance Review Report to DFID	AVRDC
256	2012-06-27a – Attachment	AVRDC
257	2013-05-10 – AVRDC's 2012-2013 Performance Review Report to DFID	AVRDC
258	2013-05-10a – Attachment	AVRDC
259	2014-04-28 – AVRDC's 2013-2014 Performance Review Report to DFID	AVRDC
260	2014-04-28a – Attachment 1 Performance Report	AVRDC
261	2014-04-28b – Attachment 2 AVRDC Monitoring and Evaluation Strategy	AVRDC
262	2014-04-28c – Attachment 3 List of AVRDC Publications 2013-2014	AVRDC
263	2014-04-28c – Attachment 3 List of AVRDC Publications 2013-2014	AVRDC
264	AVRDC's Theme Germplasm and Gene bank v2	AVRDC
265	Document on Capacity Building	AVRDC
266	Document on Impact Study	AVRDC

	Title of Document	Centre
267	Kagome story_31-Aug-2012	AVRDC
268	List of ongoing socioeconomic impact studies	AVRDC
269	ToC Theme Production-for 2014 theme meeting-revised	AVRDC
270	CABI Annual Review 2009	CABI
271	CABI Annual Review 2010	CABI
272	CABI Annual Review 2011	CABI
273	CABI Annual Review 2012	CABI
274	CABI – Letter of Amendment increasing 2011-12 Performance Element	CABI
275	CABI Intro	CABI
276	CABI Performance Indicators 2012_May Update_FINAL	CABI
277	CABI Workplace Gender Strategy 2014	CABI
278	DFID MOU DEC 2012	CABI
279	CDF Annual Report to ACIAR 2014	CABI
280	Final Report Main 11 2014 Short Version	CABI
281	CABI financial statement 2011 (4 May 2012)	CABI
282	CABI financial statements 2012 FINAL 170513	CABI
283	CABI financial-statement-2009	CABI
284	CABI financial-statement-2010	CABI
285	CABI financial-statement-2011	CABI
286	CABI financial-statement-2012	CABI
287	CABI financial-statement-2013	CABI
288	International Ag Centres Logframe Template	CABI
289	Letter outlining DFID support to CABI through Multi-Year Performance Related Funding	CABI
290	Letter to CABI about 2011-12 Interim Contribution and Multi-Year Performance Related Funding	CABI
291	Medium Term Strategy Logframe Review 2014	CABI
292	Multi-Year Performance Related MOU between DFID and CABI	CABI
293	CABI_2012-13 performance review report_DFID Formatted (FINAL)	CABI
294	CABI_2013-14 performance review report_FINAL	CABI
295	Plantwise Annual Donor Report 2013	CABI
296	Plantwise Donor Report 2012	CABI
297	Plantwise Donor Report 2013_UR	CABI
298	PW Gender Strategy	CABI
299	SDC External Evaluation 2013	CABI
300	Medium Term Strategy Final March 2014	CABI
301	Plantwise Strategy Document_Nov 2014	CABI
302	PW Strategy_Full length_21Oct2011	CABI

	Title of Document	Centre
303	Contents of GFAR Doc	GFAR
304	GFAR Funding Agreement	GFAR
305	GFAR Doc	GFAR
306	DFID Core Evaluation- additional Information Required	ICIMOD
307	ICIMOD – DFID presentation	ICIMOD
308	DFID- FIRST REPORT-Final ICIMOD 2012-13 Performance Review Report to DFID-18 June 013	ICIMOD
309	DFID results framework – Logframe – Milestone	ICIMOD
310	DFID- First Assessment Report December 2013 – 2012	ICIMOD
311	ICIMOD Evaluation Designs_ DRAFT_ DISCUSSION DOCUMENT	ICIMOD
312	DFID- SECOND REPORT ICIMOD 2013-14 Performance Review Report to DFID	ICIMOD
313	Environment management plan	ICIMOD
314	DFID-Second Assessment Report July 2014	ICIMOD
315	ICIMOD ME Framework FINAL VERSION ENDORSED BY THE PAC	ICIMOD
316	Framework for Impact Evaluation of ICIMOD's Regional Programs	ICIMOD
317	Impact Evaluation Manual_ST_NRS_BT	ICIMOD
318	Agreement with DFID	ICIMOD
319	MOU DHMS MOU RTS Jun12 Jun16 BHUTAN-NEPAL	ICIMOD
320	Himalaya MoAF Mar14 Feb17 BHUTAN	ICIMOD
321	LOA KL GNHC Jul13 Dec14 BHUTAN	ICIMOD
322	MOU MoSTE Aug14 Aug17 NEPAL	ICIMOD
323	LOA Himalica PARC Dec13 Dec14 PAKISTAN	ICIMOD
324	LOA INDUS PMD Oct13 May14 PAKISTAN	ICIMOD
325	LOA KPL FWED May13 Oct13 PAKISTAN.pdf	ICIMOD
326	LOA Kailash GBPIHED Sept12 Jun13 INDIA	ICIMOD
327	LOA NIDM Jan09 Dec09 INDIA	ICIMOD
328	LoA Koshi BSDMA Feb14 Feb17 INDIA	ICIMOD
329	MOU NIAR LABSNAA Sept 12 Sept 17 INDIA	ICIMOD
330	LOA Kailash KIB Dec12 Dec16 CHINA	ICIMOD
331	LOA Kailash CIB Dec12 Dec16 CHINA	ICIMOD
332	MOU CAREERI CHINA 2010	ICIMOD
333	LOA HICAP Sida IGSNRR Jan13 Dec15 CHINA	ICIMOD
334	MOU LU May12 Dec 17 China	ICIMOD
335	LOA HYCOS BMD Jan11 Dec12 BANGLADESH	ICIMOD
336	LOA Kailash CHEA Jan13 Dec16 INDIA	ICIMOD
337	LOA Kailash CHEA Jan13 Dec16 INDIA	ICIMOD
338	LOA HICAP Norway AARANYAY Sep12 Dec15 INDIA	ICIMOD
339	LOA FITT,IIT Feb12 Dec13 INDIA.pdf	ICIMOD

	Title of Document	Centre
340	LOA Koshi ANSISS Jan14 Dec16 INDIA	ICIMOD
341	LOA Koshi ANSISS Jan14 Dec16 INDIA	ICIMOD
342	LOA SAFE Jul14 May15 INDIA	ICIMOD
343	LOA HI-AWARE TERI Jun13 Sept13 INDIA	ICIMOD
344	LOA NAVIN Jul14 Jun15 NEPAL	ICIMOD
345	MOU WFPOct14 Oct17 NEPAL	ICIMOD
346	LOA HELVETAS Jul14 May15 NEPAL	ICIMOD
347	LOA Himalica BCN Jan14 Dec16 NEPAL	ICIMOD
348	LOA Inno7 ECARDS Nepal Sep13 Dec13 NEPAL	ICIMOD
349	LOA Koshi and Innovation NWCF Jun13 Jun14 NEPAL	ICIMOD
350	LOA HICAP MFA WWF Feb13 Dec15 NEPAL	ICIMOD
351	LOA IDS Dec13 Jun14 NEPAL	ICIMOD
352	MOU CEGIS Mar11 Mar14 BANGLADESH	ICIMOD
353	MOU BCAS Mar11 Mar14 BANGLADESH	ICIMOD
354	LOA Himalica AKRSP Oct13 Jun16 PAKISTAN	ICIMOD
355	LOA Himalica RSPN Nov13 Jun14 PAKISTAN	ICIMOD
356	LOA Himalica IID May13 Apr14 MYANMAR	ICIMOD
357	LOA Himalica IID May13 Apr14 MYANMAR	ICIMOD
358	LOA INDUS FutureWater Sept13 Jun14 NETHERLANDS	ICIMOD
359	MOU CICERO Mar11 Mar16 NORWAY	ICIMOD
360	MOU EVK2 Jun11 Jun14 Italy	ICIMOD
361	MOU EVK2 Jun11 Jun14 Italy	ICIMOD
362	MOU GBIF COPENHAGEN DENMARK	ICIMOD
363	LOA POWER Feb12 Feb15 NORWAY	ICIMOD
364	MOU SIWI Jun11 Jun14 SWEDEN	ICIMOD
365	LOA HICAP Norway UNEP Sep12 Dec15	ICIMOD
366	MOU IUCN Sep08 Aug11	ICIMOD
367	LOA WMO HYCOS May10 Dec14 SWITZERLAND 201	ICIMOD
368	HIMALA GA UCAR Aug10 Jun14 USA	ICIMOD
369	MOU IMS MRD Jan12 SWITZERLAND	ICIMOD
370	MOU IRD Jun14 Jun17 FRANCE	ICIMOD
371	MOU RML Oct13 Sept16 INDIA	ICIMOD
372	DIR MOU BCCI Mar14 Mar17 BHUTAN	ICIMOD
373	KMC MOU DABUR Jun13 May18 NEPAL	ICIMOD
374	MOU DHMS MOU RTS Jun12 Jun16 BHUTAN-NEPAL	ICIMOD
375	Annual Report 2011	ICIMOD
376	Annual Report 2012	ICIMOD
377	AR2013	ICIMOD
378	Bay leaf Ex-Post Evaluation	ICIMOD

	Title of Document	Centre
379	Draft ICIMOD Annual Progress Report Part A	ICIMOD
380	Draft ICIMOD Annual Progress Report Part B	ICIMOD
381	Draft Joint Financing Guideline_21 Oct 2014 Final	ICIMOD
382	EU Four Pillar Assessment Report	ICIMOD
383	Case impact story – Bay Leaf	ICIMOD
384	Case impact story – REDD+	ICIMOD
385	Case impact story – SMS to Farmers	ICIMOD
386	ADB	ICIMOD
387	IPBES-ICIMOD-statement_Bonn	ICIMOD
388	Pakistan Chief Minister	ICIMOD
389	ICIMOD Partnership Manual- 23 Jan	ICIMOD
390	ICIMOD Partnership Strategy	ICIMOD
391	ICIMOD Publications Policy 2014	ICIMOD
392	ICIMOD Risk Management Strategy 2014	ICIMOD
393	Framework for Impact Evaluation of ICIMOD's Regional Programs	ICIMOD
394	ICIMOD Evaluation Designs_ DRAFT_ DISCUSSION DOCUMENT	ICIMOD
395	Impact Evaluation Design for Agriculture Extension	ICIMOD
396	REDD_Impact Evaluation	ICIMOD
397	M&E Progress since 2013	ICIMOD
398	2014 Communications Report final	<i>icipe</i>
399	Letter to <i>icipe</i> about 2011-12 Interim Contribution and Multi-Year Performance Related Funding	<i>icipe</i>
400	Letter outlining DFID support to <i>icipe</i> through Multi-Year Performance Related Funding Oct 11 – March 15	<i>icipe</i>
401	Amend No A – 2012 DFID-SDC reg <i>icipe</i> signed 24Sept12	<i>icipe</i>
402	Amend No B – 2013 UK DFID Funding to <i>icipe</i> Amendment for additional funding Jan 2013	<i>icipe</i>
403	MoU <i>icipe</i> -SDC Oct 2011 – Mar 2015	<i>icipe</i>
404	Doc 1 <i>icipe</i> Deliverables and Milestones APR 2011 – MAR 2015 -Nov23 FINAL 2012	<i>icipe</i>
405	International Ag Centres Logframe template	<i>icipe</i>
406	<i>icipe</i> _DFID_report 6July12	<i>icipe</i>
407	<i>icipe</i> _DFID_report_2013-31-May-13	<i>icipe</i>
408	<i>icipe</i> _DFID_report_2014 5May14	<i>icipe</i>
409	DFID Performance Assessment letter to <i>icipe</i> 2Aug12	<i>icipe</i>
410	<i>icipe</i> response performance assessment 8Aug12	<i>icipe</i>
411	Response from DFID and <i>icipe</i> feedback on Action Points 13Sept12	<i>icipe</i>
412	DFID Performance Assessment letter to <i>icipe</i> 30July2013 AWARD	<i>icipe</i>
413	A-Swift-DFID-letter- <i>icipe</i> -13-08-2013 <i>icipe</i> response	<i>icipe</i>
414	Performance Assessment letter to <i>icipe</i> (July 2014)	<i>icipe</i>

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415	Response to DFID 2013 performance letter 9Sept14	<i>icipe</i>
416	<i>icipe</i> 2011 core RBM Annual Report 16May12	<i>icipe</i>
417	2011 <i>icipe</i> PUBLICATIONS REPORT 16May12	<i>icipe</i>
418	2011 <i>icipe</i> Final Audited Accounts	<i>icipe</i>
419	<i>icipe</i> 2012 CORE RBM Annual Report 10May2013	<i>icipe</i>
420	2012 <i>icipe</i> Final Audited Accounts	<i>icipe</i>
421	<i>icipe</i> 2013 CORE RBM Annual Report_FINAL 5May14	<i>icipe</i>
422	2013 <i>icipe</i> Final Audited Accounts	<i>icipe</i>
423	2013 <i>icipe</i> Audited Accounts Management Letter	<i>icipe</i>
424	Restricted and Unrestricted Funding 1Dec14	<i>icipe</i>
425	DFID core CONTRIBUTION ANALYSIS APR 2009 – MAR 2015	<i>icipe</i>
426	Guide on the Financials	<i>icipe</i>
427	Consolidated financial trends	<i>icipe</i>
428	Trends of Income & Expenditure	<i>icipe</i>
429	Annex shared with <i>icipe</i> Board on Human Resources Staffing	<i>icipe</i>
430	Annex shared with <i>icipe</i> Board on Succession planning at <i>icipe</i>	<i>icipe</i>
431	<i>icipe</i> Organisation Chart-2013 FINAL	<i>icipe</i>
432	MoU <i>icipe</i> _ Kamili Nature Brands	<i>icipe</i>
433	MoU <i>icipe</i> _ Kenya Biologics signed 28Oct14	<i>icipe</i>
434	MoU <i>icipe</i> _ MilbaBrands Ltd	<i>icipe</i>
435	<i>icipe</i> Real IPM Royalty Agreement March 2011 <i>icipe</i> 69	<i>icipe</i>
436	Addendum to Royalty Payment Agreement <i>Metarhizium anisopliae icipe</i>	<i>icipe</i>
437	<i>icipe</i> Real IPM Royalty Agreement February 2012 <i>icipe</i> 78	<i>icipe</i>
438	Addendum to Royalty Payment Agreement <i>Metarhizium anisopliae icipe</i>	<i>icipe</i>
439	Annex Shared with <i>icipe</i> Board Selection criteria for commercial partners	<i>icipe</i>
440	EU Beehealth Project Agreement Burkina Faso_Govt Ministry	<i>icipe</i>
441	Project Agreement-AIV IPM- <i>icipe</i> and HORTI-Tengeru_Govt Institute	<i>icipe</i>
442	<i>icipe</i> _UDs Cameroon FF Contract _University	<i>icipe</i>
443	FINAL <i>icipe</i> WeRATE subcontract SIGNED May14_Consortium NGO	<i>icipe</i>
444	<i>icipe</i> _ SACK NSD Rest Var FINAL Fully Signed_INGO	<i>icipe</i>
445	<i>icipe</i> _Vision_and_Strategy_2013-2020 2014	<i>icipe</i>
446	<i>icipe</i> _external_review_report 2008_2012 2013	<i>icipe</i>
447	<i>icipe</i> Responses to 2008-2012 External Review Report Recommendations _ FINAL 6Feb14 SK 2014	<i>icipe</i>
448	<i>icipe</i> _demonstrating_excellence 2007_2012 2013	<i>icipe</i>
449	Push-Pull Farming Systems_Success Stories 2013	<i>icipe</i>
450	ARPPIS external evaluation digital version 2013	<i>icipe</i>
451	ARPPIS tracer study digital version 2012	<i>icipe</i>
452	<i>icipe</i> -biennial-highlights-2011-2012_digitalversion 2012	<i>icipe</i>

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453	IVM_Malaria_evaluation_icipe_biovision digital version 2012	icipe
454	icipe policy_on_gender_policy_2013	icipe
455	BTorto-Malaria slides – DFID review	icipe
456	CPrideaux Partnering for impact	icipe
457	ENguku DFID – Commercial Insects Programme	icipe
458	GKimana Value for Money	icipe
459	HAffognon Socio Economic Impact of Biological Control of Stemborers DFID Final	icipe
460	HWainwright Real IPM <i>icipe</i> 15 Jan 2015	icipe
461	NManiania_DFID Evaluation 2015	icipe
462	RSaini ppt DFID Review Jan 2015	icipe
463	RSang Zoonotic DFID REVIEW PRESENTATION	icipe
464	RSkilton DFID_CBID_presentation_Jan 2015_RS10	icipe
465	SEKesi DFID – EvaluationFF_final	icipe
466	SKelemu DFID review January, 2015	icipe
467	ZKhan Push-pull DFID Review presentation 2015_Rev1	icipe
468	Selection criteria for commercial partners	icipe
469	Appendix 1- New Core Funded Positions	icipe
470	Appendix 2 – Policy on Anti-fraud- Anti-corruption	icipe
471	Appendix 3 – Procurement Policy Manual	icipe
472	Appendix 4 – Expenses for DG approval process	icipe
473	Appendix 5 – Rules of Procedure of the Governing Council	icipe
474	Appendix 6 – Policy on Employee Whistle Blowing	icipe
475	Appendix 7 – IT Usage Policy	icipe
476	Letter to Dr Philip Chiverton SIDA – 19 Dec 2014	icipe
477	Update of <i>icipe</i> action plan – Sida initiated EY Review	icipe
478	<i>icipe</i> Deliverables and Milestones APR 2011 – MAR 2015 -Nov23 FINAL 2012	icipe
479	International Ag Centres Logframe template	icipe