Annex 9

Synthesis Strategy

Prosperity Fund Evaluation and Learning

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HM Government

Prosperity Fund

Evaluation & Learning services delivered by:

wyg

LTS INTERNATIONAL

INTEGRITY

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Table of Acronyms

Abbreviation	Description
BC	Business Case
CA	Contribution Analysis
E&L	Evaluation and Learning
EQ	Evaluation Question
G&I	Gender and Inclusion
IO	Intermediate Outcome
KII	Key Informant Interviews
MR	Monitoring and Reporting
MREL	Monitoring, Reporting Evaluation and Learning Unit within PFMO
PF	Prosperity Fund
PFMO	Prosperity Fund Management Office
PM	Programme Manager [of a PF Programme]
TAG	Technical Advisory Group
ToC	Theory of Change
VfM	Value for Money

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This report has been prepared during the inception phase of the Prosperity Fund Evaluation and Learning contract. It forms an annex to the main Inception Report.

It was produced and approved by the Prosperity Fund Management Office before the main Inception Report and Workplan were finalised and agreed.

If there is any inconsistency between this annex and the main Inception Report and Workplan, the main Inception Report and Workplan provides the agreed position.

Executive Summary

The PF is funding a large, complex and diverse portfolio of programmes. Given the breadth of the Fund and the fact that implementation and results generation will largely happen through projects funded by the programmes, a systematic process for structuring, drawing together, analysing and presenting the evaluation findings against the over-arching framework is necessary.

The synthesis strategy sets out three levels at which the synthesis of evaluation evidence will support evaluation of the Prosperity Fund, namely:

1. Family level synthesis of project and programme evaluations grouped under Fund level intermediate outcome pathways.
2. Cross cutting thematic analysis that will contribute to thematic evaluations.
3. Fund level analysis that will support annual Fund evaluation.

To undertake a synthesis at the Family and Fund level, a contribution analysis methodology is proposed as evidence can be drawn from both the data and results generated by a programme or set of programmes, and from external research or literature available to provide wider contextual evidence. This evidence is synthesised and mapped onto the theory of change. We propose this mapping include an analysis of the mechanisms by which the change occurs and the influence of context. This will allow the evaluations to better identify the conditions under which different outcomes are observed. A contribution analysis framework and strength of evidence protocol is presented.

Synthesis of evidence for cross-cutting analysis may use other methodologies relevant to the specific themes under investigation (such as value for money analysis for the VfM thematic evaluation).

To better describe the causal pathways from activities through to the PF's intermediate outcomes, the family level evaluations will synthesise evidence from clusters of projects and programmes that contribute to identified intermediate outcomes. Initial desk based analysis of the Fund's programme portfolio has identified families of projects and programmes grouped according to five intermediate outcomes: Human Capital, Innovation and Technology; Trade; Financial and Economic Reform; Ease of Doing Business; and Investment in Infrastructure. We propose splitting the Investment in Infrastructure intermediate outcome into 3 sub-families given its scale (it represents by far the highest proportion of PF funding).

The strategy identifies responsibility within the E&L Service for the synthesis at the three levels above:

1. The leads for each family of projects or programmes will lead the family synthesis in close collaboration with each Programme Evaluation Lead.
2. Thematic Leads will be nominated for each thematic evaluation and be responsible for organising and managing the synthesis within thematic and cross cutting analysis.
3. The Principal Fund Evaluator will be responsible for the synthesis within Fund level analysis.

In line with the user and learning focus of the E&L Service, the synthesis will take place in annual evaluation cycles, and provide the opportunity for interaction with evaluation users through the evaluation cycle (prioritisation, design, data collection, analysis and review). The

organisation of information from projects and programmes for synthesis also provides opportunities for structuring learning and knowledge sharing activities along similar lines.

Monitoring data will also be used in the synthesis. Engagement with the MR Provider will include working out how data can be organised and processed to support the synthesis work.

The PF Is a large Fund supporting a diverse range of interventions across several continents. The strategy sets out measures to mitigate the challenges presented by the complexity of the Fund.

1. Introduction

1.1 The Evaluation and Learning (E&L) Service

The Evaluation and Learning (E&L) service to the Prosperity Fund (PF) is provided by three firms, led by WYG, together with Integrity and LTS. We work alongside the Monitoring and Reporting (MR) service provider, PA Consulting, and their partner, The Economist Intelligence Unit.

The E&L approach places the usefulness of the evaluation to stakeholders at the centre of evaluation design and implementation. For this reason, over our seven-month inception period, we have engaged with PF stakeholders to enable us to design our E&L approach and methodology, as well as establish relationships that will support implementation.

The purpose of the E&L Function is to generates lessons that can be used to enhance the effectiveness of the PF at project, programme, programme 'families' and Fund levels. Evaluations will respond to Programme Teams' learning and information needs: providing evaluation evidence they need to do their job better. We will also be evaluating what has been achieved, how and why.

E&L works closely alongside MR. While the focus of the Fund's MR systems is on accountability (i.e. identifying and explaining PF spending and results achievement); E&L processes focus principally on learning and performance. The roles are nevertheless related, with data and findings from MR expected to feed into programme and fund level evaluations. For this reason, the E&L and MR service providers have and will continue to closely coordinate our delivery and service designs.

1.2 Process to Develop this Document

This document has been developed based on design work undertaken by the E&L team since September 2017. This included a joint assessment of the Fund Theory of Change (ToC) with the PFMO and Technical Advisory Group (TAG) in October 2017, followed by an initial review of the PF documents. This included a review and mapping of Business Cases (BCs) (which is presented in full a separate paper). There has been close interaction within the E&L Team to understand how the synthesis work will support the programme and Fund level evaluations.

Given the user focus of the evaluation, discussions have been held with the MREL team in PFMO about how synthesis may be managed. This Paper has drawn on the consultations held with Programmes that were managed by the E&L's engagement team. Discussion with the MR contractor on how data for programmes and projects may be organised and aggregated was also held, to inform the synthesis approach.

2. Purpose and Role of E&L Synthesis

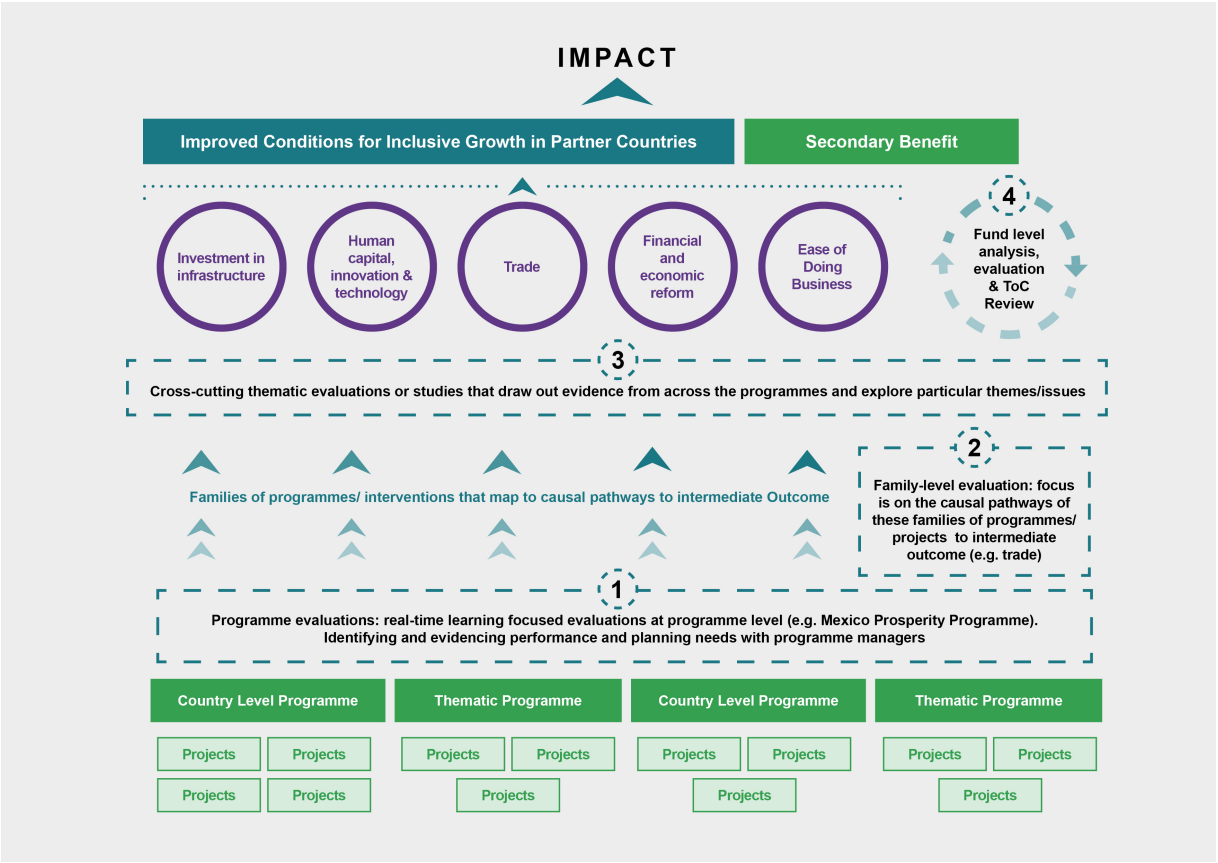

Figure 1: The E&L evaluation architecture

2.1 The Theory Based Evaluation

The Prosperity Fund is a large, complex and diverse portfolio of programmes. The E&L Service will use a theory based evaluation approach with the Fund-level Theory of Change (ToC) as the over-arching framework.

A set of core evaluation questions (EQs) will guide the evaluation. These can be found in the E&L Evaluation Framework and in Table 1. They explore aspects of causality, assumptions about the PF's contribution to results including outcomes, and the factors that influence the achievement of results.

Given the breadth of the programme and the fact that implementation and results generation will largely happen through projects funded by the programmes, a systematic process for structuring, drawing together, analysing and presenting the evaluation findings against the over-arching framework is necessary.

The synthesis strategy sets out the plan for doing this. Figure 1 presents the evaluation architecture for the E&L Service to answer EQs at four different levels in the Fund. Within this architecture, it is expected that synthesis approaches will support evaluation at three of the four levels of the evaluation:

- Family-level synthesis evaluations that explore contribution to primary purpose and secondary benefit at intermediate outcome level. We have started this work through an initial mapping of projects or programmes that share similar outcomes and can be grouped per [Fund level] intermediate outcome. These groupings that align to an intermediate

outcome we have termed 'families' and the synthesis of programme evaluation evidence by a 'family synthesis'. These will synthesise evidence from the programme evaluations and other available sources (e.g. learning from evaluations of similar programmes) and case studies that evaluate specific aspects of the family's contribution to each intermediate outcome.

- Cross-cutting thematic evaluations that will assess important factors that affect the achievement of results, but which cut across the causal pathways of the Fund ToC. These will use synthesis from existing programme and family-level evaluation together with specific case studies to gather additional information and learning. Whilst there may be opportunities to plan some data collection as part of the programme evaluations to reduce the evaluation burden on Programme Managers (PM) and their teams, additional consultation may be necessary.
- The Fund evaluation will draw together information from programme, family, thematic, MR and from external research or literature data to make assessments of overall performance and contribution to the Fund ToC.

2.2 The User & Learning Focus

The user and learning focus adopted by the E&L Service involves close engagement with the evaluation users to identify and prioritise learning and evidence needs, and to facilitate learning from the evaluation findings. An annual evaluation cycle is proposed (Section 9 below) that embeds touchpoints for learning as part of the evaluation process.

- Family syntheses will support peer-to-peer learning across projects and programmes working towards similar outcomes. There will be engagement with programme and project strand leads about the nature and focus of family syntheses, the identification of case studies with strong learning potential to support the contribution analysis.
- Thematic analysis will support cross-fund learning with respect to results and issues that cut-across programmes. They should be useful to both programmes and wider strategic considerations at Fund level (for example how VfM is being managed by programmes across the Fund, or how training is being designed and used to support output delivery). Topics for thematic evaluation would be identified and prioritised with inputs from both Programmes and PFMO in the prioritisation stages of each annual evaluation cycle.
- The Fund level analysis will provide the source for an evidence-based review of the Fund Theory of Change that will be done during the review stage of each annual cycle. This process will be strongly participatory and help identify evidence and fund-level learning needs for wider dissemination as well as evidence and learning needs for subsequent evaluation cycles.

3. Synthesis and the Core Fund EQs

3.1 Role of Synthesis in Answering the Core Fund EQs

The synthesis approach will assist in the answering of the core EQs (Table 1).

Table 1: Evaluation Questions and Synthesis

Evaluation Question	Role of Synthesis
EQ1: What evidence is there that the Prosperity Fund is likely to contribute to the intended outputs and intermediate outcomes in the ToC, as well as any unintended or unexpected effects?	The Fund evaluation will draw on the family-level syntheses and case studies.
EQ2: Which types of interventions, sectors and country settings have been more and less successful in contributing to the achievement of primary benefits?	Family-level synthesis will allow assessment of the EQ by IO. Cross-cutting thematic evaluations will evaluate cross cutting factors (such as type of intervention and country context).
EQ3: Which types of interventions, sectors and country settings have been more and less successful in contributing to the achievement of *secondary benefits*?	Family-level synthesis will allow assessment by IO. Cross cutting thematic evaluations will evaluate cross cutting factors (such as type of intervention and country context).
EQ4: What evidence is there that the changes supported by the Prosperity Fund interventions will be sustainable and ensure environmental sustainability, will be self-financing and lead to inclusive growth that reduces inequality?	Programme level sustainability assessments will be aggregated by family through the synthesis, and common patterns of factors for sustainability will be identified. These are brought together at the Fund level evaluation.
EQ5: What factors have contributed to the achievement of primary and secondary benefits?	Each family level synthesis will involve a contribution analysis, analysing the factors leading to the outcomes achieved, drawing on Programme Evaluations and case studies.
EQ6: How has the balance and relationship between primary and secondary outcomes across the portfolio influenced the achievement of results?	The family level synthesis will assess how this primary-secondary balance has affected results. This is likely to inform a thematic evaluation on this EQ.
EQ7: Which assumptions and causal pathways outlined in the ToC remain valid, which have been adapted and what refinements need to be made?	The family synthesis will assess causal contributions of different interventions to primary and secondary outcomes. This will also contribute to the Fund Evaluation to test the assumptions of the ToC.
EQ8: To what extent is the institutional governance set-up of the Prosperity Fund more or less effective in achieving i) primary benefits; ii) secondary benefits; iii) other results?	A cross-cutting thematic evaluation would synthesise findings from the programme evaluations and case studies allowing consideration of governance factors such as country context and intervention design.
EQ9: What types of programmes, approaches and governance and management arrangements have been more and less effective for achieving results and demonstrate good approaches to supporting inclusive growth and VfM?	This would be explored at Fund level, drawing on a cross-cutting thematic evaluation.
EQ10: To what extent have the Prosperity Fund interventions contributed to results that support gender equality, women's economic empowerment and social inclusion in line with the UK's Gender Equality Act and the Prosperity Fund Policy and Guidance and the Prosperity Fund Gender and Inclusion Framework?	This would be explored at Fund level, drawing on a cross-cutting thematic evaluation.
EQ11: How is the Prosperity Fund learning and why is action on this learning happening more and less successfully?	This would be explored at Fund level, drawing on a cross-cutting thematic evaluation.
EQ12: Which Prosperity Fund lessons in translating outputs into intermediate outcomes are sufficiently robust for wider learning?	Extracted from all evaluations.

4. Synthesis Methodology

4.1 Overview of Synthesis Method

The E&L team acknowledge the challenges of testing attribution in the PF: attribution analysis tends to focus on direct, verifiable causality which is not aligned to policy and process changes involving complex interconnections among activities and observed outcomes[1] such as those associated with the PF. Contribution Analysis (CA), in contrast, can credibly assess cause and effect relationships in circumstances when impacts result from a complex interplay of actions by multiple players, and a variety of contextual factors.[2] CA refers to a theory-based approach that aims to confirm that an intervention is a contributory cause to a given outcome. A contribution claim must be based on a theory of change verified through evidence which can also account for the role of other relevant causal factors.[3] Evidence can, therefore, be drawn from both the data and results generated by a programme or set of programmes, and from external research or academic literature available to provide wider contextual evidence. Once the contribution claim has been tested against available evidence, further evidence can be sought and the claim can be revised and strengthened. While there are a variety of tools that can be used, at the core, contribution analysis relies on six key steps (Table 2).

Table 2: Contribution analysis

Step	Application to PF
1: Set out the attribution problem to be addressed	What is or is likely to be the contribution of the PF programmes to the achievement of primary and secondary benefits?
2: Develop a theory of change and identify risks to it	Identification of key contexts where the PF is likely to have; and necessary conditions for; contribution to changes. Develop a Theory of Change for the Fund/programmes' contribution to these changes in a form that is evaluable.
3: Gather the existing evidence on the theory of change	Review existing data related to these contexts from existing case studies, portfolio analysis, and secondary data. Identify contribution from PF and assess the role of other contributing factors.
4: Assemble and assess the contribution story, or performance story, and challenges to it	The different sources of data will be assembled at each step of the causal pathway in the Fund theory of change. Where a change story is strong, the team will engage stakeholders to provide feedback on the contribution evidence.
5: Seek out additional evidence	Additional evidence will be collected where there are gaps in the evidence or where stakeholders express considerable uncertainty over the contribution story.
6: Revise and, where the additional evidence permits, strengthen the contribution story	The evaluations will generate lessons and insights to support Fund adaptation and enhance impact.
From: Mayne, J. (2012). Contribution analysis: Coming of age? *Evaluation*, 18(3), 270-280.	

[1] Patton M. Q. (2012) 'A Utilization-Focused Approach to Contribution Analysis', *Evaluation*, 18/3: 364 –77.

[2] Mayne J. (2008) 'Contribution Analysis: An Approach to Exploring Cause and Effect', The Institutional Learning and Change (ILAC) Initiative. ILAC Brief 16.

[3] Mayne, J. (2012). Contribution analysis: Coming of age? *Evaluation*, *18*(3), 270-280.

4.1.1 Nested Change Pathways

In a Fund as diverse as the PF, there is a need for multiple underlying change pathways, to describe the causal pathways showing the linkages between the activities through to the PF's intermediate outcomes and outcomes. This makes the assessment of contribution more plausible, and reduces external validity limitations (discussed further in 4.1.3 and 5.2 below). From our initial analysis of Programme Business Cases, we have proposed the nesting of programme and project theories of change in 'families' under causal change pathways towards Fund intermediate outcomes (IOs). This provides a structure for clustering and assessing contribution claims to ensure CA is more practical to implement.[4]

The use of nested causal pathways in these families allows us to break down the anticipated and observed changes within the ToC; bringing them 'closer' to the programme-level users. It should inform the development of more evaluable ToCs at programme level and family level that integrate testable assumptions which consider context and political economy factors. It also means the E&L can:

- Use approaches to data collection, analysis and synthesis to help assess relevance and performance issues;
- Create opportunities – in line with the E&L's user and learning focus – to engage multiple perspectives and create equal space for [particularly primary] stakeholders to participate meaningfully in the evaluation.

4.1.2 Adopting a Realist Lens

Much of the PF's interventions seek to influence policy and regulatory change, or to positively affect trade and partnerships, all of which are sensitive to context. Our synthesis approach therefore needs to recognise that the ToCs developed at project and programme level need to consider that context may affect whether the mechanisms for change work as intended. When synthesising findings from programmes to the family level, those assumptions of change shown to work in one situation may not act in the same way in a new context.[5]

Realist evaluation offers a way of framing findings about '*how and why* change happens', not merely looking at 'if change happened' and the difference an intervention has made to this. It asserts that an intervention triggers different change *mechanisms* in different *contexts* with different participants. Contexts include features such as social, economic and political structures, organizational contexts, and the geographical settings. Contextual factors may enable (or prevent) particular mechanisms from 'triggering'. Because the interventions work differently in different contexts, they cannot simply be expected to be replicated from one context to another and automatically generate the same impacts. As such, realist evaluation is useful in terms of understanding why an intervention produces dissimilar outcomes when implemented in different settings. It also helps us deal with the challenges of external validity by using case studies to better identify the conditions under which diverse outcomes are

[4] In researching methods that were relevant to CA objectives, sufficiently rigorous for making credible claims, and feasible, Riley *et al* (2018) ended up with a careful selection of nested theories of change; the strategic use of social science theories, as well as quantitative and qualitative data from diverse sources; and complementary methods to assemble and analyse evidence for testing the nested theories of change. Riley, B. et al (2018) Using contribution analysis to evaluate the impacts of research on policy: Getting to 'good enough'. *Research Evaluation*, Vol27:1 pp 16–27.

[5] Williams, M. (2017) External validity and policy adaptation: From impact evaluation to policy design. BSG-WP-2017/019 *BSG Working Paper Series*, University of Oxford

observed, and focusing on aspects like implementation capabilities and trajectories of change.[6] By mapping the observed contextual influences onto the causal change mechanisms the CA can include an assessment of contextual factors along and across the pathways.[7]

It supports our user and learning focus, by providing an evidential basis for engagement and discussion with PF managers (whether at Fund or Programme levels) on whether the lessons learnt could be applied elsewhere.

4.1.3 Using CA in a Participatory Way

In line with this approach to our contribution analysis based synthesis, the E&L team will:

- Work closely with respective programme teams to test the evaluability of project and programme ToCs.
- Cluster projects and programmes that contribute towards similar intermediate outcomes in families. This has already been begun through the desk-based review of business cases that is included as Annex 10 to the Inception Report.
- Establish one or more causal pathways that map the programmes/projects to the intermediate outcomes to understand the underlying theory or theories contributing to Fund outcomes. Identify the influencing factors for each step in the causal pathway – assumptions, mechanisms, causal relationships – that contribute to the change envisioned by the programmes, and test with the respective Programme teams. This will use the evidence from the year 1 programme baselines and ToC reviews.
- Agree in advance with stakeholders a data strength protocol (Appendix 1).[8] The E&L team gather the existing evidence from the programme evaluations and from other 'meta-data' (e.g. evidence from other evaluations of similar programmes). This will be used to build the evidential basis for the Family-level pathways.
- Set out a plausible contribution claim for the family pathway.
- Test the contribution claim as new evidence is collated through programme evaluations and research:[9]
    - Does the evidence on changes and assumptions uphold the ToC?
    - If not, what are the plausible 'rival explanations' and pathways, based on the observed or emerging outcomes?
    - What anticipated or other supporting factors occurred along the observed pathways of change that explain, plausibly, the changes?
    - What mechanisms (or ways/rules/combinations of interacting and behaving) were/are essential to enabling the observed pathways?

[6] Woolcock, M. (2013) Using case studies to explore the external validity of 'complex' development interventions. Harvard Kennedy School Faculty Research Working Paper Series RWP13-048.

[7] Using a structure such as Pawson's four categories of contextual factors: Pawson, R. (2013) The Science of Evaluation: A Realist Manifesto. Thousand Oaks, CA: Sage.

[8] This approach has been used previously by the consortium and is already approved by EQUALS.

[9] Van Hemelrijck, A., Guijt, I., Holland, J., & Proctor, A. (2013). PIALA Research Strategy. Improved Learning Initiative (Internal Document). IFAD

- Use case studies sampled from each family of projects or programmes clustered under 1 intermediate outcome pathway to gather detailed information for testing the ToC assumptions, mechanisms, role of context and the strength of the relationship between contribution and observed outcome.
- Conduct joint review of findings with the primary stakeholders to assess the plausibility of the various assumptions and clausal claims, the role of context and other factors in affecting the contributions claimed, to identify weaknesses in the evidence base for follow-up.

4.2 Contribution Analysis at Fund Level

At the Fund level, the CA will be used to answer evaluation questions exploring the contribution / likely contribution of the Fund overall to its stated primary purpose and secondary benefits and the factors that have contributed to or hindered these achievements. The analysis will draw on evidence collected from the programme evaluations, the family-level evaluations and selected Thematic evaluations supported by secondary data from relevant document and literature reviews.

At the Fund-level, contribution analysis will be used to generate findings of a strategic nature that may inform active management of the Fund's portfolio: the identification of factors inhibiting or supporting performance and the role of context in enabling contribution will be relevant for the users. The analysis will generate a series of contribution stories for any observed outcomes, including alternative causal pathways that contributed to these outcomes. In evaluating these contribution stories, available evidence will be mapped against these theories, evidence weaknesses and gaps identified.

The evaluation does not plan on taking case study samples at this level, but is likely to triangulate findings through interviews with selected key informants, and will; together with primary users in the PFMO; develop the recommendations emerging from the findings. The contribution stories will be directly linked to evidence synthesised from the different sources.

4.3 Contribution Analysis at Family-level

At the family level the synthesis will use contribution analysis to assess the PF's contribution to the respective intermediate outcome causal pathway; considering the role of context and whether market, policy or other barriers been resolved, in whole or in part, by the contributions of PF interventions and whether these investments have contributed to changing attitudes, approaches or policies in target audiences. Evidence for evaluating the contribution claims will be drawn from the synthesis of evidence from the programme evaluations, and synthesis of case studies designed to provide more detailed evidence and learning on specific aspects of the causal pathway. We will aim to purposively select four to six cases to explore further. This sample will not necessarily result in generalizable claims, but rather an understanding of PF contribution to the changes observed in specific contexts (discussed in 5.2 below).

Additional stakeholder interviews will also be used to collect more qualitative information on project or programme contribution within a family and identify potential alternative theories that could have contributed to these changes. Sampling of interviewees in this analysis will be purposive based on availability, willingness to contribute and the ability to contribute plausible evidence.

4.4 Contribution Analysis Framework

For synthesis at Family level, in order to assess contribution with respect to the theory of change and selected evaluation questions, a framework will be developed indicating contribution stories, data sources, and strength of evidence. Below (Table 3) is an example framework indicative of hypotheses, data sources and plausibility that will be employed by the E&L team when undertaking CA.[10] We will draw on realist evaluation by exploring questions on 'how' and 'why' the PF works and contributes to observed changes at a family level exploring the role of different contextual factors.

Table 3: Draft Contribution Analysis Framework with hypothetical example for illustrative purposes

Context	Hypothesis (from ToC)	Evidence Sources	Plausibility	Outcome
Energy and Low Carbon Family (Hypothetical example)				
Did the programmes in the Low Carbon Development Family create an environment suitable for improved investment in low carbon energy technologies?	PF investments increase LCE technology deployment and innovation, leading to lower costs and increased financial viability of LCE investments	Stakeholder key informant interviews from investment fund staff, banks and investing institutions, technology developers or exporters landscape and context analysis, programme documentation, stakeholder / network analysis	Medium to High: Evidence will be dependent on the willingness of key informants to engage with evaluation. Documentation and landscape analysis will be useful to determine timing, business cases and potential motivation of investor commitments.	Increased investment in low carbon energy development in target countries
	Shifting social and political changes/reforms have provided alternative incentives for low carbon energy investments			
	Market trends for investment in UK green energy technology were increasing prior to PF investments			
Has the PF contributed to investments managers' capacity to understand green finance and how to use it?	PF interventions to improve policy and regulatory frameworks have improved the investment environment that incentivises investment in green infrastructure and encourages international trade	Stakeholder interviews, landscape and context analysis, programme documentation regarding investment managers	Medium: It may be too early to confirm market uptake of new green financial mechanisms. Interviews with finance stakeholders should provide insight into issues of risk perception, agency, accessibility, etc.	Improved environment for green investment
	Early financing from PF in key Funds has reduced risks in the market providing a more attractive investment environment to private sector and fund managers			

4.5 Triangulation and Evidence Assessment

The synthesis approach we propose requires us to verify and cross-check data sources and rigorously triangulate evidence strands. For example, each contribution claim requires the triangulation of evidence to determine the degree of influence. These claims are developed

[10] Developed based on guidance provided by John Mayne, with reference to Mayne, J. (2012). Contribution analysis: Coming of age?. *Evaluation*, *18*(3), 270-280

on the back of 'causal claims' which also require rigorous testing of evidence to determine strength.

Our proposed approach to data quality and triangulation is outlined in Appendix 1 and Appendix 2 at the end of this document.

4.6 Challenges Around Synthesis

The PF is a global Fund, working across a wide range of sectors and applying a wide range of intervention designs to achieve its intended outcomes. This generates several challenges that our proposed synthesis strategy must manage:

- Comparable data sets: the programmes and projects of the PF are not starting simultaneously; so they will have staggered life cycles. It is unlikely that similar data sets will be available for all projects even within a family and some data sets may not be suitable for aggregation. These challenges will be mitigated by using a core set of evaluation questions across programmes, similar data collection methods amenable to synthesis, evaluation teams that work on evaluations within a given family. During the annual evaluation design phase the comparability of programmes will be assessed, so that the project-cycle stage is taken into consideration for sampling and processing data for the respective synthesis.
- Data availability: In emerging markets without robust financial or monitoring systems, data availability may be limited by lack of historic or accurate data. The use of market experts where available could improve the quality and availability of this data. Support from the programme teams in country may help by providing access to other relevant country stakeholders for interview or research.
- Data availability: Much of the data which could be used to effectively assess or evaluate the various programme outcomes will still be emerging come the end of the E&L evaluation period. The implication is that there may be insufficient data to draw conclusions from: the evaluations will need to be forward looking, predictive, assessing likelihood of future change and impact rather than confirmed. The assessment of certain outcomes, such as those that prescribe financial factors as key indicators of success, may be limited.
- Sufficiently similar theories of change within Families: the initial desk-based assessment is currently being confirmed with Programme leads. However, whilst it may be possible to identify common intermediate outcomes (IOs) to group programmes, the project or programme intervention designs and the mechanisms by which they contribute to intended outcomes are quite variable. The evaluative analysis will explore different contextual factors and mechanisms that influence results as part of the contribution analysis. It is likely that there are projects within programmes that don't 'fit' into the family structure we are proposing for the analysis of the Fund ToC. These may be captured in a thematic evaluation or through specific case studies as part of programme evaluations.
- Resource limitations: There may be limited scope to carry out the iterative process of testing and re-testing the ToC which Mayne (2012) suggests, given our need for user-oriented findings that can support management design-making at different levels within the Fund. By building in the participation of primary stakeholders into the evaluation cycle, by capturing multiple perspectives in the design and review of the ToC and by being open about alternative ToCs (including unexpected outcomes and impacts) the evaluation process will be reflective and iterative so as to be appropriately critical.

- Case study limitations: The PF has a large and diverse portfolio, spanning dozens of countries and sectors. As such, not every project or project strand will be involved in a case study and may not be explored in sufficient depth to provide evidence for the evaluation. Case study research is also vulnerable to criticism regarding its limited generalisability, given the small samples size that is its key characteristic[11]. Our approach to using case studies at the Family and cross-cutting thematic levels is described below. The sampling will be purposive (that is, focused on ensuring specific characteristics under investigation are represented within the sample) but systematic in terms of selection, and thoroughly documented to mitigate risks of sampling bias.
- Adaptive programming means projects may evolve over their lifetime: as will contribution evidence and learning values. Therefore, the sample of projects selected as case-studies at the baseline stage will be revisited annually as will the family grouping.

5. Family Synthesis

5.1 Proposed Grouping of Projects and Programmes

From the desk based analysis of programme business cases (see separate E&L Initial Portfolio Analysis and Mapping Paper) five 'families' of programmes cases have been identified aligned to intermediate outcomes (as shown in Table 4). At this point, it is proposed that Infrastructure is organised by three sub-families ('Infrastructure', 'Energy & low carbon' and 'Technology/digital access/ Future cities'), due to its overall scale of investment by the PF. These groups or 'families' of projects and programmes are a starting point for weaving together related findings from the various evaluation activities against common pathways to change and a basis for assessing the strength of the Fund ToC. The organisation of projects under these families still requires more analysis which will be undertaken early in the year 1 implementation phase.

Table 4: Summary of Families

Intermediate Outcome	Budgeted Spend	Percentage of Total Budgeted Spend[12]
1. Investment in Infrastructure[13]	£489.4m	58%
Infrastructure	£241.4m	29%
Future Cities	£32.8m[14]	4%
Energy & Low Carbon	£127.5m	15%
Technology / Digital Access	£82.5m	10%

[11] Mookherji & LaFond (2013) Strategies to maximize generalization from multiple case studies: Lessons from the Africa Routine Immunization System Essentials (ARISE) project. *Evaluation* 19:3, 284-303.

[12] Note that the percentages add up to more than 100% given that some projects feature in two families and are therefore counted twice. The percentages are calculated by dividing the budgeted spend against the total spend of the mapped programmes (£842m).

[13] Note that the figures for the sectors within IO1 do not add up to exactly £489.4m due to overlaps and discrepancies in the draft business cases.

[14] Note that this figure does not include the budget of the Future Cities programme, whose Business Case was not part of the initial mapping.

Intermediate Outcome	Budgeted Spend	Percentage of Total Budgeted Spend[12]
2. Human Capital, Innovation and Technology **overlaps especially with IOs 1 & 4*	£119.8m[15]	14%
Health and Education	£6.9m[16]	0.8%
Overlaps with other sectors that involve piloting / demonstrating innovative products	£112.9m	13%
3. Trade	£166m	20%
4. Financial and Economic Reform	£97.8m	12%
Financial Services	£97.8m	12%
5. Ease of Doing Business	£ 116.4m	14%
Business Environment	£101.8m	12%
Transparency & Anti-Corruption	£14.6m	2%

5.2 How Family Synthesis will be Undertaken

5.2.1 The Use of Case Studies

Case studies will be used in the family-level synthesis evaluations to complement the assessment of evidence generated through the programme evaluations, secondary data and research and the MR data sets. The mapping of evidence from the Programme evaluations onto the family causal pathways (a portfolio mapping exercise using the contribution framework in Table 3 above), will effectively determine the 'average effect' of family interventions on the change pathway from across different contexts and implementations. However as noted in 4.1 above, there is unlikely to be any 'average effect' across all dimensions. As such the portfolio mapping exercise will usefully summarize and synthesize existing evidence and provide a basis for selection of case studies for more detailed real-world, context-mechanism assessment to validate steps of the theory of change or underlying contextual assumptions.

As noted in the challenges section, case studies can be vulnerable to criticism as to their generalizability and what they are expected to be representative of. However, in the case of our synthesis approach that incorporates realist principles, we may select case studies that analyse how PF interventions work within each family and in which conditions. Previous experience shows that analysing the links between intervention, mechanism and outcome increases the explaining power, while identification of essential context elements improves the usefulness of the findings for decision-makers in other settings.

5.2.2 Case Study Sampling

The sampling of projects for case studies under the family-level evaluation will be purposive. The criteria used to select samples is likely to vary between families, depending on the key design attributes and contextual factors of the programmes and projects in that family. The

[15] This figure is an estimation as there is no budget for the Connectivity project at the time of the mapping.

[16] This figure is based on the skills and entrepreneurship project within the India programme. It will significantly increase once the Global Education and Better Health Business Cases are added to the mapping.

criteria will be agreed with the PFMO and respective Programme Managers prior to the selection of the cases as part of the initial prioritisation and selection stage of the evaluation. The types of criteria likely to be considered are:

- Learning Potential: in line with our learning focus, the selected cases should have potential for providing useful learning to the programme teams participating in the family. Those that have a strong demonstration effect (such as early start or particularly successful projects) can provide useful lessons for other projects in the family.
- Policy Environment: PF may operate in countries with either strong or weak regulatory and policy environments supporting the target sector. Private investment will be more challenging in countries with weak or limited policies and regulatory contexts. Cases that reflect different policy context settings will allow a broader assessment of the contextual factors affecting the causal pathway.
- Coverage: Full representativeness is not expected, the case studies should capture the range of different contexts and mechanisms observed within the causal pathway for that family.
- Quality of evidence: an obvious criterion: those projects that will not be able to provide data that are plausible and verifiable will be less useful to the contribution analysis and less likely to be selected as case studies.

Based on the resources available to the E&L Service, it is expected that 4 to 6 project case studies will be purposively selected per family grouping. The selection of case studies and the detailed data collection and case study synthesis methodology will be prepared in the approach paper for each family-level evaluation. Table 5 and Table 6 below indicate which projects and programmes fit within each family based on the initial desk based assessment to be confirmed through the baseline assessments.

Table 5: Infrastructure family broken up into nested families

Infrastructure nested families			
Infrastructure	Future Cities	Energy and low carbon	Technology
Colombia (Rail and Infrastructure)	India (Urban and smart cities)	India (Energy and low carbon)	Digital Access
AIIB Special Fund	Mexico (Future cities)	China (Energy and low carbon)	
India (Financial Services for infrastructure)	Brazil (Future cities)	Mexico (Energy)	
China (Infrastructure)	China (Future cities)	Brazil (Energy and low carbon transition)	
NIIF	Global Future Cities Programme	Indonesia (Renewable Energy TA and capital)	
Global Infrastructure		SE Asia Clean Energy Programme	

Note the projects allocated to the family are shown in brackets. Projects and programmes may occur under more than one family, where that project/programme is expected to contribute to more than one intermediate outcome.

Table 6: projects allocated to other Families.

Other proposed family allocations			
Human Capital, Innovation & Technology	Trade	Financial and economic reform	Ease of doing business
Colombia (Agriculture)	Brazil (trade)	Colombia (Agriculture)	Colombia (Capacity Building)
Global Insurance and Risk Facility (analytics and innovation)	Global Trade Programme	Global Insurance and Risk Facility	India (Ease of doing business)
India (Skills & entrepreneurship)		India (Financial services)	China (Rule of law for business)
China (energy & low carbon)		China (Financial services)	Global Business Environment
Mexico (Financial services)		Mexico (Financial services)	Mexico (Business environment)
Digital Access (Connectivity)		Brazil (Green Finance)	Global Anti-Corruption
Brazil (Trade, future cities and energy)		SE Asia Clean Energy (Green Finance)	Indonesia (Regulatory Reform)
Indonesia (Renewable energy)		SE Asia Trade and Economic Reform (Broadening & deepening financial reform)	SE Asia Trade and Economic Reform
Global Infrastructure (case model and project initiation road map)			

5.2.3 Management of the Family Synthesis Process

Each programme evaluation will be led by a Programme Evaluation Lead. The family-level synthesis will be led by a Family Lead (one lead per family) who will ensure all programme evaluation teams are trained in the use of common evaluation methods and instruments for those EQs that will be synthesised under the family-level evaluation. The Family Lead will be responsible for designing the family synthesis evaluation that responds to the EQs, as articulated in the context of a family grouping.

As part of each annual evaluation cycle, the Family Lead will engage with all Programme Evaluation Leads relevant to that family and together they will identify the information requirements from programme evaluations for the family synthesis. The case study projects will be selected based on agreed criteria. The selection will have to be agreed with selected programme teams and the case study evaluations will be embedded into the programme evaluations.

The data from the programme evaluations will be assessed for relevance to the synthesis (through application of the data strength protocol, (Appendix 1) and where appropriate will be integrated into the synthesis work.

Case studies will be analysed by the programme teams, with guidance from the respective Family Leads. The case studies may be used in two ways:

- Within case analysis to understand in detail the nature of the interplay of context and mechanism in achievement of the contribution. The use of within-case analysis methods such as process tracing would be used.

- Cross-case analysis where case study evidence is compared to examine the factors that may explain similar outcomes or different outcomes.

During the data analysis and report writing stage, two levels of engagement will be necessary for the family-level synthesis:

1. Synthesis meetings between evaluation teams, where findings are compared and discussed, probably through a synthesis meeting facilitated by the Family Lead.
2. Family-level reference groups will be established. These reference groups will sense-check which projects belong to the family, be involved in the selection of which projects to sample, and discuss any proposed family Theory of Change. They will also be used to sense-check the synthesised findings to ensure they are representative and that relevant findings haven't been overlooked.[17] The family reference groups will also support learning and knowledge sharing through the family-level evaluations.

5.3 Year 1 Family Synthesis Activities

During year 1, baseline work from the programme evaluations will be used to build the causal pathways and context-mechanism assumptions of the proposed families.

During the early stage of year 1 of the E&L Service, the family groupings will be tested and reviewed with the programme teams. An assessment of the project designs within families will be made that can contribute *i*) an early family-level learning product and *ii*) to the baseline contribution context for each family.

The baseline evidence collection at programme level will be use to collate the existing evidence for contribution claims along the pathway to each intermediate outcome. The intention is to develop a robust causal pathway for the family, so that at the outset it seems reasonable that the interventions grouped will map to the expected results. In order to set this up for later contribution analysis, the following steps will be necessary:

- Set out the context for the contribution analysis at family level.
- Develop the expected family casual pathway and facilitate agreement on this with the family programmes.
- Agree the criteria for case study with relevant Programmes and PFMO and select the sample cases for deeper analysis.

6. Cross-cutting Thematic Analysis

Not all factors affecting the achievement of results in the Fund ToC are structured by intermediate outcome causal pathways – there are issues that cut across the ToC and the fund that will need to be evaluated in cross-cutting thematic evaluations. These may be large macro-evaluations or smaller focused studies and will synthesise evidence from questions asked at programme level (necessitating clear integration into programme evaluations). These include cross-cutting and underlying assumptions of the Fund and the pillars of sustainability

[17] Sense-making is an evaluation and social research structured process for helping users make sense of evidence and to make evaluative judgements of what the findings mean, for how they will use the evidence to inform decision-making. Patton M. Q. (2012) 'A Utilization-Focused Approach to Contribution Analysis', *Evaluation*, 18/3: 364 –77.

that run through programme design, including green financing, gender and social inclusion, VfM or adaptive learning across the fund.

6.1 How Cross-cutting Synthesis will be Undertaken

The cross-cutting thematic evaluations and studies will draw on findings from the programme evaluations. However, and depending on the focal area of the specific evaluation, a range of other information sources, including thematic case studies, research and learning from other comparable programmes or funds will be used. The thematic analyses may not use CA but will rather use the methods and techniques relevant to the questions being asked. In most cases score cards, rubrics, or other organising frameworks will be used to collate and synthesise evidence for generating findings. Scorecards are useful in this instance for synthesising and creating comparable results from different contexts and programmes. The same strength of evidence protocol (Appendix 1) shall be applied to these synthesis studies.

Each cross cutting thematic evaluation will be led by a Thematic Lead. The Thematic Lead will engage with all Programme Evaluation Leads to identify evidence needs for the thematic evaluation and whether additional assessment or analysis is required from the programme evaluations for the purposes of the thematic study. Training and guidance will be provided to the programme evaluation teams to ensure consistency in the data collection and analysis necessary for the thematic evaluation, including the preparation of data collection tools that aid the synthesis of evidence. There may be situations where specific evaluation field work, separate to that of the programme evaluation, is necessary for specific thematic studies commissioned by the PF.

As part of the E&L annual evaluation cycle, the priorities for thematic evaluation and synthesis requirements should be identified each year following the review of existing evidence and a reflection on the coming year's evidence and learning needs at Fund level.

The joint analysis process – in line with our user and learning focus – will be employed during the analytical process:

1. Synthesis meetings between evaluation teams, where findings are compared and discussed, facilitated by the Thematic Evaluation Lead.
2. The synthesised findings sense-checked with stakeholders (the PFMO and the sampled programme teams) to ensure they are sufficiently representative and that relevant evidence haven't been overlooked. This would be coordinated closely with the Learning and Knowledge Management Lead so that learning generated from the evaluation can be presented and disseminated across the find more broadly.

6.1.1 Use of Case Studies

Case studies will also be used by the cross-cutting evaluations where detailed evidence and in depth analysis is required. The sampling of projects for case studies under the cross-cutting evaluations will be purposive. As with family evaluations, selection criteria for the case studies will be developed during the initial stage of each evaluation and case study selection described in the respective approach paper: some may be desk based cases, whilst others may require interaction with project teams. The illustrative criteria described in 5.5 are also likely to be relevant here (Learning Potential; Coverage; Policy Environment; Quality of evidence).

Thematic case studies may be undertaken as part of Programme evaluations, in which case thematic experts will be embedded in those programme evaluations to support the data collection and analysis with guidance from the respective Thematic Lead. Where this is not

feasible or appropriate, a separate thematic evaluation field mission will be organised with the programme teams, through the respective Programme Evaluation Lead. In both cases these should be built into the annual programme evaluation approach paper, so that the expectations of the E&L team and the programme teams are clear and agreed by all parties in advance.

The case studies in cross cutting thematic evaluations may be synthesized to present findings across the Fund, or will be assessed and compared for patterns and factors that may explain the similar or different results measured.

6.2 Year 1 Cross-Cutting Thematic Synthesis Activities

During year 1 the cross-cutting thematic studies are expected to:

- Carry-out deeper portfolio-level research on PF programme design and business cases and on complementary programmes from which lessons and comparative analysis may be drawn. This will build on some of the analysis started during the inception work[18]. These will be coordinated by the Technical Lead (Fund and Thematic) and undertaken by evaluation researchers within the E&L core team cadre.
- Pilot test frameworks for synthesising evidence for gender and inclusion (G&I), value for money (VfM) and sustainability. The G&I and VfM piloting will be coordinated by the respective Thematic Lead. The Technical Lead (Fund and Thematic) will lead the development and piloting of a Sustainability Rubric that will be applied to PF.[19] These Rubrics will be developed based on reviews of literature to identify relevant criteria and measures that will help guide assessment of progress. For example, criteria for the Sustainability Rubric will likely include cover different dimensions of sustainability including human, social (organisations, institutions and networks), economic and natural (environmental) sustainability. All the pilots will be managed through the Programme Evaluation Leads for the selected early start programmes.
- Build on the baseline and early formative evaluation work in the Programmes to gather evidence on how programmes have incorporated key cross-cutting and accountability issues (gender and inclusion, value for money, sustainability, governance and secondary benefits) in to their design and management processes. The Fund Evaluation Lead will coordinate with the Programme Evaluation Leads to standardise how data is collected and to facilitate the synthesis of the findings with them.
- Support evidence development for strategic reporting such as to the forthcoming spending review. This will be led by the Technical Lead (Fund and Thematic) and involve synthesis of cross cutting evidence from across the Fund's portfolio; with areas of focus agreed in advance with PFMO.

7. Fund Evaluation

The fund level synthesis will be the primary instrument for drawing together and analysing data at the overarching Fund Level. Evidence gaps will be filled by assessing if key lines of

[18] These will be mainly desk based and smaller in scale.

[19] It is intended that the use of scorecards will help answer EQs at fund level related to primary purpose, sustainability, VfM secondary benefit, gender and possibly contribution to learning.

enquiry are included in specific programme evaluations and if this is not the case, the Fund will commission thematic evaluations to focus on the relevant areas and use secondary data.

Within the E&L Service, the Fund evaluation will be led by the Fund Evaluation Lead. The Fund synthesis will occur in the third quarter of each evaluation cycle, sequenced to be able to make use of the findings from the other evaluations undertaken in that year. The Fund-level findings will be presented and reviewed as part of the 'review' stage of the evaluation and inform the annual ToC review and the Fund level annual review process. Beyond the CA based synthesis methodology outlined in Section 4 above, the E&L Fund-level Methodology Paper outlines the approach and methods anticipated for the fund evaluations.

8. Synthesis and the Monitoring and Reporting Systems

8.1 What Does our Synthesis Strategy Mean for MR Data Needs?

The results and secondary data inputted into the MR Prospero platform will form part of the data used for synthesis in family, cross-cutting thematic, and fund evaluations.

The E&L Team have interacted with the MR provider during the inception phase to identify ways in which programmes will be 'tagged' to allow future aggregation or disaggregation of data. There will be close cooperation in the first year of the implementation during the baseline work as the project level indicators are set up in the Prospero system. Together with the MR provider we will need to assess the comparability of indicators and data sets between projects and the suitability or appropriateness for aggregation, suitability of outcomes for measurement and contribution claims.

Each year as part of the review process, the suitability of data for synthesis and relevance to the evaluation will be fed back to the MR provider. This will include where we have identified potential indicators or measures that provide a better resolution or more accurate read-out of the observed changes and contribution of the Fund in that change.

9. Operationalising the Synthesis Strategy

9.1 How Synthesis is Managed

The E&L Service is designed to be as simple as possible and minimise transaction costs on the Prosperity Fund implementers and managers. Figure 2 shows that a series of learning points have been identified where interaction is necessary.

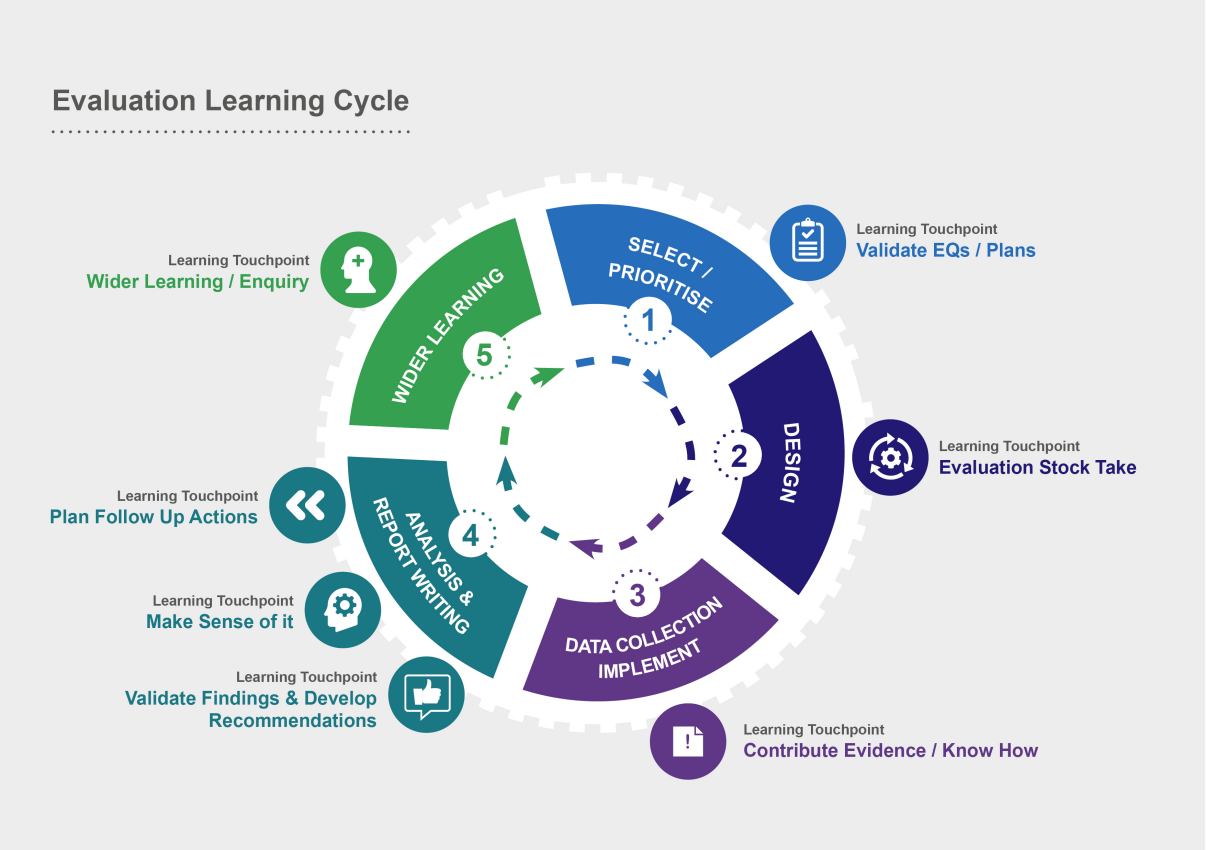

Figure 2: Evaluation and learning cycle

These learning points will provide the opportunity for PF stakeholders to participate in the annual prioritisation of the evaluation, analysis of findings and development of recommendations. At the level of interaction with programmes, the E&L service will work through their programme evaluation teams guided by the respective synthesis leads (Family Lead for family-level synthesis; Thematic Lead for thematic synthesis and the Fund Lead).

The respective leads will be responsible for the preparation of the synthesis instruments, of briefing the evaluation teams, oversight of the data collection and facilitation of the analysis.

9.2 Presenting Synthesised Evidence

If the evidence and data is aggregated to too high a level, it will lose meaning and value. However, where there is scope for representing findings using simple infographics; which support the detailed findings and can be directly linked to evaluation evidence; this form of presentation will be used. The synthesis approach of using frameworks and assessing the strength of evidence for the elements of the ToC tested does allow for infographic representation, supported by a systematic organisation and analysis of the evidence base.

Appendices

Appendix 1: Data Strength Protocol

Evidence Saturation and Strength of Evidence

Quality and saturation of evidence to support findings is particularly important in the type of synthesis approach we propose. Each synthesis evaluation will need to conduct an evidence saturation and strength of evidence assessment for each finding included. This will enable the evaluation team to demonstrate clearly how findings were generated, the level of convergent and divergent views for each finding and the strength of evidence that supports each finding. How we will consider strength of evidence and evidence saturation in our synthesis approach is first described and then how we will apply these concepts into our proposed contribution framework is described below.

Strength of Evidence

All pieces of evidence that are collected including secondary data and from stakeholder interviews will be assessed for the "strength of evidence" following the categories listed in the rubric below. This will generate a score for each piece of evidence. This will enable an assessment of the strength of evidence of each finding to be clearly presented based on the aggregated results of the strength of evidence supporting that finding. Each evaluation will identify plausible evidence sources which will mean the syntheses rely on triangulation across multiple plausible evidence sources to have greater confidence in the synthesised findings. In cases where some evidence is less robust than others, we will provide greater weight to more verifiable sources and flag the potential limitations in our analysis.

"Strength of Evidence" Assessment		
2	Verifiable evidence	Refers to data that are both plausible and possible to verify. Such evidence generally describes quantifiable measures that can be physically counted. For example, the MW rating of installed energy capacity or the number of jobs in a company at a given time.
1	Plausible evidence	This includes evidence which may make a plausible claim but may draw heavily on assumptions from secondary literature, for example those used to calculate greenhouse gas emissions avoided. Alternatively, it may refer to evidence which is the plausible conclusion drawn by an expert stakeholder or observer. There may be evidence presented to justify this view but no methodology against which the validity of the conclusion can be verified.
0	Minimal evidence	Some documents may simply claim an outcome but there may be no information about the data or methodology used to evidence this claim.

Evidence Saturation

Saturation is the point in data collection when no new or relevant information emerges with respect to the newly constructed theory/hypothesis/assumption. When the theory appears to be robust, with no gaps or unexplained phenomena, saturation has been achieved and the resulting theory is more easily constructed. Saturation is often considered a matter of degree and its relevance has been contested because, if one searches long enough, there will always be the potential for alternate evidence to emerge. We choose a definition of saturation as reaching the point where sampling more data will not lead to more substantive information related to the evaluation question and does not necessarily add anything to the overall story, model, theory or framework.

However, in practice collecting sufficient data for saturation is difficult, particularly when considering trade-offs of budget, timings and access to stakeholders and small sample sizes. Given the consideration of these constraints to the synthesis strategy, we have developed clear saturation criteria that that will be applied in a data collection tool to ensure transparency in the saturation level of each finding.

Evidence saturation level*	Rating
>75% convergence of relevant evidence supporting finding	Green saturation level – will be included
75-60% convergence of evidence supporting finding	Amber saturation level – will be included, but will note the level of saturation and divergent views
<60% convergence of evidence supporting finding	Red saturation level – will not be included in the synthesis
* Evidence is included when only it is relevant for an individual finding, otherwise it is not included in the saturation assessment for each finding.	

These evidence strength and saturation assessments will be collected in a data collection tool that will enable the evaluators to clearly present both the quality of evidence supporting each finding, but also the level of convergence and divergent pieces of evidence that were considered to reach each finding. Screen shots of this tool are presented below. These will be internal working tools to support the evaluation synthesis teams in conducting their analysis and will provide the basis for populating the Contribution Framework set out in Table 3 of the main document. The first is a figure of our evidence coding sheet which will consolidate information on all evidence sources.

		Hypothesis 1		Hypothesis 2		Hypothesis 3
	Quality of Evidence (Verifiable (2)/Plausible (1)/Minimal (0))	**Reduced appetite for renewables because of oil prices**	**Narrative description**	**Project reduced risks because it provided early finance**	**Narrative description**	**Invested in renewables because of emerging market trends and reduce perceptions of risk**
		Agree? (1) Disagree (0) Not relevant (leave blank)		Agree?		Agree?
Evidence Source 1		0	i.e. Oil prices didn't impact our decisions			
Evidence Source 2		1	Oil prices went up x% so we did y			
Evidence Source 3						
Evidence Source 4						

Information on the saturation and quality of evidence supporting each finding is then captured in the aggregate sheet. This will allow the evaluation to generate findings in a transparent way and allows information on divergent and convergent views emerging from the data collection to be presented and not lost in the synthesis.

Hypothesis/finding	**Number of respondents**	**Number of documents**	**Number agreeing with finding**	**Number with divergent views**	**Saturation RAG rating (>75% convergence = Green; 75-60% = Amber; <60% Red)**	**Aggregate Strength of Evidence for finding**	**Comments on divergent views and strength of evidence**
1							
2							
3							

Our approach described above supports triangulation of multiple sources of data to validate a finding or theory/hypothesis developed in relation to an evaluation question, to generate findings and minimise potential methodological bias.

Appendix 2: Approach to Triangulation

This appendix sets out the practical activities we will put in place to triangulate data sources to support our evidence strength protocol. This articulates a clear process for interaction at set points between the different evaluation activities and E&L team members, as well as with PF programme managers. The purpose of this is to ensure that the data sources are adequately triangulated and that findings are validated with programme teams.

We envisage four levels of triangulation:

1. Triangulation of various secondary and primary data sources in the production of thematic and programme evaluation reports and Fund-level analysis;
2. Triangulation of findings within families by the evaluation teams;
3. Validation of family-level findings with programme teams, incorporating their inputs;
4. Meta-analysis of evaluation products at the Fund-level.

Level 1 – Triangulation of Various Secondary and Primary Data Sources

The data sources for the evaluation products are multiple, as outlined in Table 1 below.

Table 1: Summary of Secondary and Primary Data Sources

Type of Data	Data Source	Summary Description
Secondary – Fund Level	MR Fund-level Contextual Indicators	Structured at the Impact, Outcome and Intermediate Outcome levels of the Fund Theory of Change
	MR Portfolio Management Indicators	Will support portfolio management and the narrative the Fund wants to communicate externally
	MR Fund Performance Indicators	Will support contractual, commercial, risk, issue and operational management of the Prosperity Fund
Secondary – Family Level	MR Output Indicators	Will capture common results delivered in terms of outputs across the Fund, thereby bringing together programme and project teams that are undertaking similar kinds of activities
Secondary – Programme Level	MR Programme Level Indicators	Identified and selected by programme and project teams to monitor and report on" based on their respective logframes
	Programme Full Business Cases	Sets out the rationale for delivering an intervention in an area and outlines the programme purpose and components to obtain funding approval
	Programme Reporting	Provides information on the workstreams and projects within the programme, showing progress of delivery
	Financial Reporting	Provides financial forecasts that link to the programme workplan
Secondary – Project Level	Project Statements of Requirements	Provides clarity on the project activities and scope of work
	Project Reporting	Details how the programme is performing against the agreed work plan, and key indicators, outputs and outcomes in the logframe
Primary	Key Informant Interviews	

To facilitate the triangulation of primary and secondary data, we will ensure coordination in the design of family, programme and thematic evaluations by generating and agreeing those aspects which will feature across all evaluations, in particular:

- Standardised topics / questions for Key Informant Interviews (KIIs);
- Common guidance for document review;

- Established terminology (aligned with the MR-EL glossary) for key concepts and terms;
- Templates for recording primary data collected and reporting.

The Technical Lead (Programme and Portfolio) and Technical Lead (Fund and Thematic) will provide guidance on aspects which will feature in the toolkits to allow for meta-analysis at Fund level. This will draw on inputs from the Secondary Benefits, VfM and Gender Experts, given the cross-cutting nature of those fields.

Level 2 – Triangulation of Findings within Families by the Evaluation Teams

We will triangulate findings emerging from the programme and family evaluations through putting in place the following steps:

- Regular update calls between the Family Lead and respective Programme Evaluation Leads during evaluation delivery;
- Bringing together each Programme Evaluation Lead with the Family Lead for a 1 or 2 day analysis and triangulation workshop for each family;
- The Family Lead reviews / comments on each draft programme evaluation report within their family.

Level 3 - Validation of Family-Level Findings with Programme Teams

Once evidence from the various evaluation activities has been triangulated at the family level, we will sense-check with primary users to ensure it is context relevant and that findings have not been overlooked. There will be two layers of validation with stakeholders, aligned with the Learning Strategy:

1. Synthesised findings per family will be validated in the respective family 'Learning Groups' of programme managers, convened by the Learning and Knowledge Management Lead.
2. Synthesised findings at the Fund level will be validated in annual workshops with the PFMO prior to the submission of the annual reports. This will include a discussion of findings mapped against the Fund Theory of Change and any revisions proposed.

Level 4 - Meta-analysis of Evaluation Findings at Fund Level

We will draw on the family, thematic and programme evaluation and VfM assessment reports with a view to:

- Looking for meaningful patterns in the way that primary and secondary benefits, inclusive growth and sustainability, are distributed across the families, sectors, countries and activities;
- Assessing the implications of findings for the Theory of Change.

We will be transparent about the strength of evidence (as per the protocol set out in Appendix 1); based on the number of projects that fit and do not fit into the patterns identified and that validate or do not validate the Theory of Change.

Report on Secondary Data Quality and Availability

See Annex 7 of the main Inception Report.