Climate Public Private Partnership (CP3) Monitoring and Evaluation

Mid-term evaluation

October 2018

This report was prepared on behalf of DFID and BEIS by Climate Policy Initiative (CPI) and LTS International (LTSI). All errors and omissions are the sole responsibility of the authors.

EXECUTIVE SUMMARY

1.1 Intervention logic

The Climate Public Private Partnership (CP3) is a £130m joint initiative from the Department for International Development (DfID) and the Department for Business, Energy and Industry Strategy (BEIS), funded through the UK's International Climate Finance (ICF).

The objective of CP3 is to increase low-carbon climate resilient (LCCR) investment in developing countries. CP3 utilises an innovative model to deliver UK Official Development Aid (ODA). CP3 is participating as an equity investor in two private equity (PE) funds. It invested £50m as an early-stage investor in the International Finance Corporation Catalyst Fund (CF) managed by IFC Asset Management Company and £60m in Asia Climate Partners (ACP), managed by Robeco, Orix and the Asian Development Bank (ADB). These investments are expected to provide commercial returns to the UK Government, alongside development and environmental benefits. By demonstrating that these investments are not only ethical, but commercially viable, the initiative aims to catalyse new sources of finance, such as institutional investors (e.g. pension, sovereign wealth funds).

In addition, CP3 has made up to £19m available through a partially revolving technical assistance (TA) facility to support the market for low carbon climate resilient (LCCR) investments and undertake enabling activities for private equity, policy and regulatory initiatives and support schemes for first-time fund managers in LCCR sectors. As of now £10.23m has been paid out to three projects: a £9m investment in the Seed Capital Assistance Facility (SCAF) operated by United Nations Environment Programme (UNEP) in collaboration with Frankfurt School, a £750k advisory services project run by IFC (grant funds) and £48k for the Climate Change and Strategic Asset Allocation Project run by the investment consulting firm, Mercer LLP. The only ongoing project within the TA Facility is SCAF. The other two were short-term initiatives that have already been completed.

1.2 Objectives of this evaluation

The objectives of the assignment as defined in the Terms of Reference are:

1. **Assess the success of the CP3 programme** in driving low-carbon, climate resilient growth in developing countries.
2. **Test whether CP3 delivers transformational effects**. Transformational effects take place when CP3 activities demonstrate to the private sector that climate investment is commercially attractive and when CP3 activities build mechanisms and enabling frameworks that help sustain a transformation over the long term.
3. **Test the theory of change model** and its underlying assumptions. Due to the innovative nature of CP3, the monitoring and evaluation agents will pay particular attention to learning about the effectiveness of utilizing PE to catalyse private investment and through it, deliver development and environmental benefits.
4. **Capture the results of the programme** through on-going monitoring as set out in the logframe and, if required, make changes to the logframe to ensure that performance and results of the programme are captured and recorded appropriately.

This mid-term evaluation (MTE) seeks to generate evidence to answer the evaluation questions and synthesize lessons learned for DFID and BEIS. The theory-based evaluation relied on a mixed-methods approach and a range of synthesis methods (including both descriptive and explanatory) to generate findings. Mixed methods evaluation design is appropriate for an evaluation such as CP3 as it integrates two or more evaluation methods. This is beneficial because of the complementary nature of the data and result in greater validity of inferences and more-comprehensive findings. The evaluation questions and framework are focussed on collecting evidence to test the plausibility of the programme

Theory of Change (available in Annex 1 - Theory of Change) and its assumptions. A full methodology is presented in Annex 10.

1.3 Key findings

1. **Overall, CP3 investments have generated the outputs, outcomes and impacts expected in the CP3 Theory of Change (ToC)**. ACP and CF portfolio funds have made 77 investments in companies and projects to date. The portfolio is much more skewed towards mitigation than originally anticipated, with adaptation making up only 2% of the portfolio, significantly less than the 15-30% expected. CP3 investments have produced development impacts that exceeded expectations, deploying a total of 3,989 MW of RE capacity, creating 8,758 jobs, and avoiding 4.5m tons of CO_2 emissions. Further, CP3 helped leverage US$9,164m of public and private investment, with 73% coming from the private sector. Overall, the CP3 investment portfolio shows a definitive shift from business-as-usual (BAU) investment trends with a much stronger focus on lower-income countries compared to global averages, demonstrating additionality. Nonetheless, there is still a large portion of investments occurring in countries already receiving significant amounts of private investment.

2. **CP3 is likely to contribute to solving key investment barriers in least developed countries and lower middle-income countries in which it invested**. At inception, the CP3 programme and its theory of change sought to address key barriers to low carbon development that had been identified at that time. Since the program started, some markets have rapidly advanced – particularly renewable energy in China and India, which means CP3 is providing less value there. CP3 adds more value to investments in least developed and lower middle-income countries in which it often provides majority shares of the equity capital. To remain relevant and additional, the fund managers should continue expanding to regions where there is less private sector interest.

3. **Investments have mostly occurred within the sectors outlined in the investment mandate of the business case and have applied the level of control envisioned.** The majority are in the sectors and countries outlined in the business case, albeit with some receiving a lesser share than expected. The need to demonstrate success has influenced the overall risk profile of the portfolio and has generated a balanced portfolio. The level of control applied has been aligned with business case expectations, for example investments have been fully compliant with ESG standards. There is limited evidence that HMG encouraged further development of ESG safeguards because the main funds – CF and ACP - were subject to the strict standards from IFC and ADB. However, the funds themselves have contributed significantly to the dissemination of ESG standards, and the creation of new policies and capacities to support their implementation.

4. **CP3 played a cornerstone role in the establishment of ACP and CF, generating structures that brought together an "ecosystem" of institutions supporting LCCR investments in emerging markets.** HMG was a critical player and first mover in the establishment of the two main funds and provided the impetus to experiment with a new way of delivering ODA together with the private sector to support LCCR development in emerging countries. The evaluation found that the ecosystem had participation from more than 90 public investors, 12 PE funds, more than 140 private investors and 77 different companies and projects which collectively generated more than US$9bn in investment to-date.

5. **CP3 delivered Value for Money for HMG.** Inputs such as the management fees and administration costs are in line with other programmes and represented value in terms of the outputs achieved for the KPIs. CP3 has relied on the implementation of effective and robust governance and management systems to generate results as anticipated. While these have been important, implementation of appropriate systems may have contributed to delays in deployment of capital. Monitoring and management systems have been effective in capturing a comprehensive view of the portfolio results, which is challenging given the diverse nature of the

investments and the experience and incentives of CP3 stakeholders to generate reporting. However, there remain challenges around the quality and availability of data.

6. **Evidence of CP3's contribution to improving fund managers' capacity to undertake LCCR investments is very limited.** Through SCAF, CP3 has supported development companies focused on LCCR in emerging markets which provides pipeline to support further climate investment. However, the impact of SCAF is limited by its size. At this stage, no fund managers supported by the CF are fundraising for direct follow-on funds, which would be a clear indicator of success. The IFC is looking to raise capital for a follow-on fund, albeit with a broader mandate than climate change. We also heard from two funds that they are seeking to move away from the LCCR investment space. Because most of the funds are still in their investment period and not yet in a position to carry out new fundraising, it is still too early to make a conclusive assessment.

1.4 Conclusions

CP3 has demonstrated that private equity can be an effective vehicle for delivering climate finance. The learnings from CP3 have been significant and can help organizations design more effective programmes and provide new types of instruments to mobilise LCCR investment.

The evaluation showed there is a clear need for early-stage PE for climate projects around the world as well as demonstrated potential for it to mobilize additional private and public investment. However, there is a tradeoff between the ability to leverage finance and additionality. High additionality environments bear more risk, require proportionally larger levels of investment and are less able to attract private investors. For a commercially-focused programme such as CP3, it is unrealistic to expect 100% additionality and commercial returns because if commercial returns were widely available, private investors would already be investing and the program would not be additional. While additionality and leverage are partially competing objectives, CP3's diversified portfolio has helped achieve both outcomes. It had a greater skew towards lower-income countries in its investment portfolio compared to business-as-usual trends, showing additionality and also supported the mobilization of new finance from public and private actors.

CP3's portfolio encompasses a very wide range of climate-relevant sectors and investment strategies and outcomes, which highlights the value of private equity mechanisms with broad mandates, however the evaluation also highlighted the weakness of broad mandates in increasing investment in specific, and oftentimes more challenging sectors. CP3's broad mandate allows for innovation and for the identification of commercial opportunities in a given financial, regional and sectoral context. However, a broad mandate can also be a detriment when more specific objectives are desired. This was most evident in the lack of adaptation investments in the portfolio. Adaptation, is highly context specific and requires specialist knowledge of climate risks and how these risks can be addressed or mitigated. This knowledge was not available in generalist climate funds.

There is a need for complementary investment vehicles where CP3 shows gaps. The CP3 programme was not meant to, and cannot, address all investment gaps in the market. CP3, for example, lacks the appropriate structure to support first-time fund managers and seed or development stage projects which are essential to drive transformational change. Very early stage finance remains a major gap in the market, slowing growth and limiting the investment opportunities of the CP3 funds themselves who often cite a lack of "pipeline" as a barrier. While SCAF serves as a complementary initiative to the CF and ACP, playing an important role in scaling up a pipeline of projects and companies, it size limits its impact in the market and based on conversations with fund managers and our work with initiatives like the Global Innovation Lab for Climate Finance, we continue to see a greater need for seed finance and particularly seed finance available to new entrants. To drive greater investment in difficult markets (both in terms of countries and sectors) there is a need to design specialist programs and utilize a wider range of instruments to target financial and non-financial needs. Private equity fund managers need to invest

and realize returns within a very limited period, limiting their ability to be first movers and this should also be considered in programme objectives and design.

There is transformational change occurring in the markets in which CP3 operates. However, it is still early in the implementation period of the programme, and there is less evidence of long-term outcomes as envisioned by the theory of change. CP3 has contributed to address a finance gap in the market but it is still too early to determine whether it has influenced the behaviour of private investors through demonstration effects. The market for LCCR investment in developing countries has changed rapidly since the inception of the programme but understanding CP3's contribution to this change is challenging. This is partly due to the maturity of the programme. Most of the investments in the portfolio are less than three years old and have yet to demonstrate a track record or generate demonstration effect that may influence investor behaviour and market developments, as envisioned in the business case. There is evidence emerging that the experience of engaging with CP3 investee funds has generated useful learning and increased the confidence of institutions involved which may influence future investment and project development activities in these markets.

The experience with CP3 has already generated useful lessons for those involved and the technical expertise that HMG gathered by supporting the establishment of CF and ACP put HMG in a unique position. At the time of the programme's inception and even today, CP3 is seen as a very innovative programme. HMG's lead was critical to the establishment of the funds, helping shape the strategies and decisions of IFC and ADB and of the public investors in the funds. This was widely recognized by stakeholders. As a trusted investor with a good reputation and significant technical experience from CP3, HMG is in the unique position to leverage this to support the scale up of other public-private climate initiatives.

1.5 Key recommendations for HMG

How HMG could leverage the learnings from CP3 to produce wider impacts in the market and support transformational change

1. **Communicate and share the lessons of CP3 widely to increase demonstration effects and impacts.** A key barrier identified in the CP3 business case is the lack of information on clean investment in CP3 target markets. There is a wealth of information emerging from the CP3 evaluation which could address this barrier.
2. **Continue to monitor and evaluate CP3 to support lesson learning.** CP3 M&E has created valuable insights into the impacts and effectiveness of private equity programmes. Continue carrying out monitoring and evaluation and work towards understanding longer-term, transformational changes in the next phase of the evaluation.
3. **Consider opportunities to replicate or scale SCAF.** SCAF's focus on early stage financing and technical assistance addresses an important gap that private equity funds are not able to fulfil. HMG could support the establishment of SCAF Phase III, further supporting SCAF partners which is a vital part of building pipeline for private investors. There continues to be a significant lack of "investment ready" projects in the market.
4. **Support high quality reporting on climate finance and climate and development outcomes.** The UK, as a major climate finance provider with a strong reputation for monitoring and reporting has the opportunity to help improve global standards. There are also opportunities to support knowledge and understanding of contributions to sustainable development goals and climate mitigation scenarios.

How HMG could work to increase the ambition of green investment communities and programmes:

5. **HMG can leverage its leadership role by bringing together CP3 stakeholders to share lessons, discover opportunities and create a green investment community**. HMG is a trusted intermediary linking a wide range of institutions that shape a major part of the global clean energy and climate economy. Creating a forum that can help connect some of these

stakeholders could help catalyse new initiatives, and investments and support lesson learning from CP3.

6. **Show leadership and vision for how climate investments could develop in the future in a way that increases ambition.** Leadership and detailed guidance on the types of investments HMG is seeking and the impacts it hopes to achieve within the larger ICF portfolio of programmes can help guide the market. Clear investment criteria and transparent investment processes are essential.

How HMG could improve the design and governance of future programmes:

7. **Timelines, Milestones, and Objectives for a market-based mechanism should consider the complexity and long-term nature of market development.** Sufficient buffers in timelines and milestones should be incorporated with new programmes. There should also be flexibility in the design to allow for adjustments if market conditions change. Finally, it should be recognized that technical assistance and private equity funds operate on different timescales. Private equity fund managers need to invest and realize returns within a very limited period. Thus, there is little time for private equity to provide TA if returns are long-term and uncertain. This is where different types of programmes may be more appropriate.
8. **A future programme should target adaptation investments more purposefully.** Future programmes could define climate vulnerabilities that they want to address and invest in funds that target these vulnerabilities. Another opportunity is to provide seed-financing to first time adaptation fund managers, or to support mainstreaming of adaptation by requiring adaptation assessments supported by technical assistance.
9. **Management and governance of future programmes could be streamlined by:**
    a) **Standardizing impact reporting**. While funds comply with ICF reporting, the development and environment KPI results reported by CF and ACP are not comparable due to differences in reporting methodologies used. A solution to this could be a standardized questionnaire or a methodology that HMG requires the funds to follow.
    b) **Consistent centralised reporting.** There are inconsistencies in the current reporting system within CP3 which are further compounded by the lack of centralisation, which makes assurance of reporting challenging. Having a consistent reporting format with a centralised depository could minimise this challenge.
10. **With ESG reaching mainstream status, HMG should seek opportunities to drive climate investment standards further.** With the European Commission's Action Plan on pushing forward sustainable investment released earlier this year and the increasingly widespread acceptance of ESG as an investment standard, the foundation has been well laid for the next stage of sustainable climate investment standards to be developed. HMG could play a leading role in this development, pushing the companies and fund managers within the CP3 ecosystem to adopt higher standards than just ESG.
11. **There is a need for more technical assistance to build climate expertise.** To target climate mitigation and adaptation investments, more climate and technology expertise must be built in funds and other investment institutions such as banks. In a programme such as CP3, this could happen via technical assistance to enable building climate mitigation and adaptation assessment expertise in fund managers.
12. **HMG should consider options to scale up SCAF for Phase III or implement alternative TA facilities.** With SCAF Phase III likely on the horizon, HMG could take the opportunity to commit a greater investment of funds to SCAF to allow them to take on more implementing partners, perhaps widening their criteria and focusing further on DevCos rather than fund managers. A SCAF alternative TA facility, focused specifically on providing the type of targeted capacity building support needed for these investments, could be established under CP3 with a mandate not to invest in its own projects or partners but to support the investments of the existing CP3

funds. Such a TA facility could help local banks work with and understand project financing, support the brokering of additional investments, collaborate with governments on improving market processes, or provide direct capacity building support to project developers – all tasks which CP3 fund managers have been required to do.

Table of Contents

LIST OF ACRONYMS

ACP	**Asia Climate Partners**
ADB	**Asian Development Bank**
AEP II	**Asia Environmental Partners II**
AFP	**All funds in the portfolio**
BEIS	**Department for Business, Energy and Industrial Strategy**
CP3	**Climate Public Private Partnership**
CF	**Catalyst Fund**
DECC	**Department of Energy and Climate Change**
DevCos	**Development Companies**
DFID	**Department for International Development**
ESG	**Environmental, Social and Governance**
FoF	**Fund-of-funds**
GEEREF	**Global Energy Efficiency and Renewable Energy Fund**
GEF	**Global Environment Facility**
ICF	**International Climate Finance**
IDB	**Inter-American Development Bank**
IESE	**Institute of Higher Business Studies at the University of Navarra**
IFC	**International Finance Corporation**
IPO	**Initial Public Offering**
IRR	**Internal Rate of Return**
JICA	**Japan International Cooperation Agency**
KPI	**Key Performance Indicator**
LCCR	**Low Carbon Climate Resilient**
LRIF	**Latin Renewables Infrastructure Fund**
ODA	**Official Development Assistance**
OPIC	**Overseas Private Investment Corporation**
PE	**Private Equity**
RE	**Renewable Energy**
REAF II	**Renewable Energy Asia Fund II**
SCAF	**Seed Capital Assistance Facility**
TA	**Technical Assistance**
ToC	**Theory of Change**
TPG	**Texas Pacific Group**
VCPE	**Venture Capital & Private Equity Investment Index**
VfM	**Value for Money**

LIST OF KEY CONCEPTS

Equity financing	The process of raising capital through the issuance of shares in an enterprise.
Private Equity	Shares in the ownership of a company that are not traded on a public stock exchange but rather by the owners or funds.
Growth Equity Investment	Type of private equity investment in relatively mature companies that are looking for capital to expand operations, enter new markets or finance an acquisition.
Infrastructure Investment	Type of private equity investment in an infrastructure project that needs risk capital to finance development and leverage debt for construction.
Early Stage Equity	Private equity investment in a very early stage company or in a project during its development stage (pre-construction).
First time fund manager	Fund manager that has not raised a fund in a certain sector or region.
Additionality	Additionality refers to the property of being additional. For the purposes of this report, these are investments that show a deviation from the business as usual or global trend when the investment took place.
Case Study	Five case studies were conducted throughout the monitoring and evaluation period – three that explored individual investments and two thematic. The investment level studies looked at: Symbior, a solar plant in Thailand; Anuvia, an innovative waste treatment facility in the USA; and ColdEX, a cold chain logistics company in India. The thematic studies considered key concepts that were common across the portfolio: additionality and financial leverage, which was undertaken as part of the MTE.
Contribution Analysis	Contribution analysis (CA) to understand the contribution of CP3 to any changes observed was conducted at two levels: the main fund level (CF and ACP); and the investment level. At the main fund level, CA was used to assess CP3's contribution to the establishment of the main funds. At the investment level, CA was used to assess contribution to capacity development, looking at Armstrong and The Blue Circle, and market transformation within the context of El Salvador. El Salvador was selected purposively, based on an analysis of the market prior to the MTE.

1 INTRODUCTION AND CONTEXT

1.1 Intervention Logic

Developing countries face the dual challenge of mitigating and adapting to climate change and achieving economic growth to increase standards of living and decrease poverty. The International Finance Corporation (IFC) estimates that emerging markets will need at least US$23 trillion in investment between 2016 – 2030 in order to meet climate pledges (IFC, 2016).

As part of United Nations Framework Convention on Climate Change (UNFCCC) agreements, the UK along with other developed economies agreed in 2010 to help mobilize US$100 billion per annum by 2020 to pay for climate change mitigation and adaptation in developing countries. The scale of investment needed dwarfs the amount of public resources available. Therefore, utilizing public finance to attract or "leverage" additional private finance for climate change became a central strategy of donor governments and development finance institutions.

Her Majesty's Government (HMG) provided £3.87 billion of Official Development Assistance (ODA) over the period 2011-2016 to help developing countries achieve Low Carbon Climate Resilient (LCCR) development. This money is channelled through UK International Climate Finance (ICF). One of the programmes being funded through the ICF is the Climate Public Private Partnership (CP3), a joint DFID and BEIS (formerly DECC) initiative. CP3 is a £130m programme that utilises an unusual model to deliver UK ODA:

> *"The CP3 programme is built on the assumption that private finance is essential to delivering substantial developmental and climate benefits, including stronger and more responsive financial markets which are the backbone of productive and low-carbon economic systems where people can take the lead to escape poverty and improve their lives."*

As part of the design of CP3, DFID held meetings with pension funds and development finance institutions with the objective of identifying opportunities where UK public finance could have a catalytic effect and leverage additional private investment for climate change in developing countries. Discussions focused on the need for more early-stage equity investment to support new projects and companies. Early stage equity provides capital for new companies and projects to form and grow, laying a foundation for further investment. With equity, companies can start their operations, pilot projects, invest in growing businesses, and undertake other activities crucial to accessing other forms of capital. This could lead to more innovation, creation of new business models, and capacities, leading to long-term transformational change (DECC, 2013).

1.2 Programme objectives and design

HMG worked with the International Finance Corporation (IFC), the Asian Development Bank (ADB) and other partners to design CP3 with the objective of investing early stage equity in new companies and projects in LCCR sectors. This includes clean energy, low carbon transport, resource efficiency, sustainable agriculture and environmental remediation. Individual PE investments in this space can include venture capital and growth capital (upstream) and infrastructure (downstream). As part of investment agreements with the funds, the UK Government defined allowed investment activities, requirements and exclusions (for an example of this see Annex 5 - ACP Investment Criteria).

CP3 invested in two new funds created for this purpose. The UK invested £50m (US$80m at the time) as an anchor investor[1] in the IFC Catalyst Fund (CF) - a "fund-of-funds" (FoF) with a focus on investing in other cleantech PE funds globally and managed by IFC Asset Management Company (IFC). CF raised capital from eight other investors, including IFC, two private pension funds from

[1] An anchor investor is a large, and well-regarded investor that provides an investment early in the fundraising period and can help provide confidence to other investors in the fund or transaction in question.

Australia and Germany, the sovereign wealth fund of Azerbaijan, the governments of Canada and Norway and the Japan Bank for International Cooperation for a total fund size of US$418m.

The UK also invested £60m (US$ 100m) in Asia Climate Partners (ACP), a fund managed through a partnership between ADB, Orix and Robeco – private fund managers. ACP carries out direct investments in cleantech companies and projects in Asia. In addition, ACP raised capital from ADB, ORIX (a private asset manager), Bank of Tokyo Mitsubishi, Sompo Japan, Pacific Consultants Group and the Japan International Cooperation Agency (JICA) for a total size of US$447m.

The two PE funds have different investment strategies. CF is a FoF that invests in other PE funds managed by third party fund managers. In contrast, ACP invests directly into companies and projects which gives it more direct control over the actual investments made but a smaller pool of co-investment capital.

The two PE funds make investments at commercial terms, which is central to the CP3 theory of change (ToC)[2] to demonstrate to the market that climate investments are not only feasible, but profitable. As investors see proof of commercial viability, they become more likely to invest in this space. This way CP3 helps catalyse the sector and lead to transformational change.

In addition to the investments in the PE funds, the UK Government also made available £19m to a technical assistance (TA) facility to support the market and undertake enabling activities for PE, policy and regulatory initiatives and support schemes for first-time fund managers. Most of this support (£9m) was provided to the Seed Capital Assistance Facility Phase II (SCAF)[3]. SCAF's objective is to increase the availability of investment for early-stage development of low-carbon projects in developing countries by providing financial support on a cost-sharing and co-financing basis to low-carbon projects via PE funds, venture capital (VC) funds and project development companies (DevCos). This helps seed the market and increases the availability of low-carbon investments in developing countries. Some of the initiatives incubated by SCAF have gone on to raise capital from the CF and other investors and are now actively undertaking investments as fund managers. SCAF II also receives funding from BMUB (the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety). It is delivered through the United Nations Environment Programme (UN Environment) supported by the United Nations Office for Operations (UNOPS) and two entities of the Frankfurt School group , the Frankfurt School of Finance and Management gGmbH (FS)-UN Environment Collaborating Centre for Climate and Sustainable Energy Finance and the Frankfurt School Financial Services.

Finally, the two other TA programmes (IFC TA and Mercer Strategic Allocation) focused on improving the environment for climate friendly investing. Mercer received a £48,000 grant to support publishing the Investing in a Time of Climate Change study in June 2015 which applied climate change scenarios (2°/3°/4°C) and risk factors to asset allocation, and provided investors with a methodology to plan for climate change impacts on long-term portfolios. CP3 also granted £750,000 to an IFC Advisory Services (AS) initiative which sought to work with governments, principally in Central and West Africa, to support improvements to the investment climate for clean energy investment by the private sector.

[2] More information on the CP3 ToC is available in Annex

[3] SCAF I began in 2009 and ran for five years, supporting eight partners with financing from UN Environment and ADB, among others. Under CP3, DFID invested in SCAF Phase II which is set to run for eight years, starting in 2014. Phase II operates in a similar manner to Phase I with two significant differences: Phase II has expanded their prospective partner base to include DevCos in order to more effectively support pipeline development; and now offer a repayable loan under their second support line with shared development risks, rather than a straight grant.

2 PURPOSE, SCOPE AND OBJECTIVES OF THE EVALUATION

2.1 Evaluation Objectives

Climate Policy Initiative (CPI) and LTS International (LTSI) have been contracted as Monitoring and Evaluation (M&E) agents to CP3 over a four-year period between October 2014 and December 2018. The objectives of the assignment as defined in the Terms of Reference are:

1. **Assess the success of the CP3 programme** in driving low-carbon, climate resilient growth in developing countries.
2. **Test whether CP3 delivers transformational effects**. Transformational effects take place when CP3 activities demonstrate to the private sector that climate investment is commercially attractive and when CP3 activities build mechanisms and enabling frameworks that help sustain a transformation over the long term.
3. **Test the theory of change model** and its underlying assumptions. Due to the innovative nature of CP3, the M&E agents will pay particular attention to learning about the effectiveness of utilizing PE to catalyse private investment and through it, deliver development and environmental benefits.
4. **Capture the results of the programme** through on-going monitoring as set out in the logframe and, if required, make changes to the logframe to ensure that performance and results of the programme are captured and recorded appropriately.

The Mid-Term Evaluation (MTE) undertaken in 2018 was originally planned to be undertaken in 2017, however, it was decided by programme managers to postpone it by one year due to delays in fundraising and investments. This allowed more time for impacts and evidence to become available and increased the value of the MTE. As agreed, the MTE focused on the two PE funds, with a smaller focus on the ongoing TA Facility project (SCAF).

This formative MTE seeks to generate evidence to answer the evaluation questions and synthesize lessons learned for DFID and BEIS.

2.2 Evaluation Scope and Purpose

The MTE covers the investments and technical assistance activities that were funded through CP3 since its inception in 2012 to the present. This includes the CF and its investee funds, ACP and its investee companies and SCAF II (SCAF)[4]. The MTE does not focus on the two TA activities that have already been completed (Mercer and IFC Advisory Services) which form a very small part of the overall portfolio and were already evaluated with an end of term note. Cut-off dates for the consideration of development results were 2017, which is the latest reporting available. Financial results are current as of the first quarter (March) 2018.

The scope of activities does not represent any changes to those included in the terms of reference (ToR) or the CP3 Inception report, with the exception to the timeframe for the MTE and the structure to the Evaluation Questions which have been refined.

The target audiences for the evaluation are primarily DFID/BEIS programme managers with a secondary focus on the stakeholders from the programmes funded by CP3. The evaluation had a purpose of generating learning, particularly around the CP3 approach to catalysing private sector investment to deliver development and environmental benefits and the implications of the findings for the wider UK International Climate Finance portfolio.

[4] For SCAF, the evaluation will largely draw on the findings of an ongoing UN Environment funded evaluation of the SCAF facility, with some limited data collection to answer the evaluation questions unique to the CP3 evaluation.

The MTE has generated learning on the design, management and governance of CP3 to support the design and consideration of other similar climate programmes. The MTE seeks to provide the UK Government and other stakeholders with a clear picture of how the CP3 programme is functioning compared to the expectations of the business case and whether it is delivering on its intended impacts. Learnings from this evaluation will be useful not only to feed into the management of the programme but also to disseminate knowledge that can help other public funders catalyse climate finance that contributes to low-carbon climate-resilient (LCCR) development.

2.3 MTE evaluation team

The MTE was conducted by a small core team comprised of a mix of evaluation and climate finance experts and supported by a strategic advisory pool and resource pool who conducted specific evaluation activities to support the MTE evaluation findings. The team has also been supported over the course of the assignment by a range of experts who have conducted discrete evaluation activities such as case studies. Table 1 provides an overview of the MTE project team and resource pool.

Table 1: M&E team members who contributed to the MTE activities

Core Team	Strategic Advisory and Quality Assurance Panel	Resource Pool
• **Donovan Escalante** (CPI) – Project Manager/ Climate Finance Lead • **Karoline Hallmeyer** (CPI) – Analyst Climate Finance • **Rebecca Adler** (LTS) – M&E Lead • **Callum Murdoch** (LTS) – M&E consultant	• **Barbara Buchner** (CPI) – Executive Director CPI • **Kirsty Wilson** (LTS) – Climate Change Consultant	• **Matthew Savage** (LTS) – Climate Finance Specialist- Contribution Analysis lead • **Jennifer Butz (LTS)-** El Salvador Market Lead who supported the contribution analysis

Most data collection and analysis was conducted by the core team members, with two members focused on portfolio analysis, financial leverage, additionality and VfM with the other two focusing on design and governance issues, contribution and transformational change. They were supported by two experts in the resource pool who led the contribution analysis for the MTE. The team met regularly to exchange iterative findings and each team member has made an important contribution to this report.

3 EVALUATION METHODOLOGY AND DESIGN

3.1 Evaluation Approach

The theory-based evaluation relied on a mixed-methods[5] approach and a range of synthesis methods (including both descriptive and explanatory) to generate findings. The evaluation questions and framework are focussed on collecting evidence to test the plausibility of the programme ToC (available in Annex 0 Annex 1 - Theory of Change) and its assumptions.

Evaluation Questions

[5] Mixed methods evaluation design is appropriate for an evaluation such as CP3 as it integrates two or more evaluation methods. These approaches are often beneficial because of the complementary nature of the data and result in greater validity of inferences and more-comprehensive findings.

Evaluation questions (EQs) were defined to deliver the objectives of the MTE as set out in the ToR of this assignment. The primary goal is to assess the success of the programme in delivering its objective of driving low-carbon and climate resilient growth in developing countries. This objective should have been delivered in a cost-effective manner according to Value for Money mandates and be sustainable over the long-run, in accordance to OECD DAC criteria. Table 2 shows how the evaluation questions answer core objectives and relate to the OECD DAC criteria.

Core Question	Evaluation Question	OECD DAC
Is CP3 achieving its investment objectives as set out in the business case?	EQ1: Are CP3 investment funds investing according to the business case mandate?	Relevance, Effectiveness
	EQ2: Are investments resulting in the outputs, outcomes, and impacts expected in the CP3 Theory of Change?	Impact, Effectiveness
	EQ3: To what extent is CP3 leveraging additional private and public finance for low carbon climate resilient technologies in developing countries?	Impact
	EQ4: Did CP3 contribute to solving key barriers in the markets in question (e.g. information asymmetries, agency problems, etc.)	Impact
Have these objectives been achieved in a cost-effective manner?	EQ5: Did CP3 represent Value for Money for HMG?	Effectiveness, Efficiency
Are its outcomes and impacts likely to be maintained after the programme ends?	EQ6: Did CP3 contribute to transformational change in the countries and markets targeted?	Impact, Sustainability
	EQ7: Has CP3 contributed to fund managers' capacity to undertake low carbon climate resilient investments?	Sustainability

Table 2 Relationship between evaluation questions and objectives

Methodology

The methodology for the MTE was developed in consultation with experts from DFID and BEIS starting with a workshop in September 2017 to collectively refine evaluation question and methods. These were then further refined based on stakeholder feedback and were finalized in March 2018. The M&E agents, along with BEIS counterparts, developed the analysis framework (discussed in more detail below) that guided the realist synthesis inspired approach. The full methodology paper is available in the Annex.

This synthesis report brings together findings from all evaluation activities carried out over the four-year period of this evaluation as well as analysis specific to the MTE. This includes ongoing logframe data collection, five case studies - including three on individual investments and two thematic case studies, one on additionality and one on financial leverage. A contribution analysis, value for money analysis, statistical assessments of the investment portfolio, assessments of past and current market contexts, assessment of transformational change, and thematic analysis of programme documentation and of interview responses were also conducted during the MTE and fed into evaluation findings.

The MTE drew on evidence that included financial and non-financial results reporting, interviews, private equity and cleantech market literature and data, and consultations with representatives from a range of stakeholder groups, including component leads, sub-fund managers and staff, co-investors and other market actors. Data collection instruments were developed by team members leading each part of the evaluation and then tested and reviewed by the quality assurance team prior to data collection.

Synthesis of evidence was necessary for all aspects of the evaluation and relied on both "descriptive" synthesis and "explanatory" synthesis. Descriptive synthesis was used to aggregate quantitative data or simple analysis of factually verifiable data. A range of explanatory synthesis approaches was applied, including thematic and a critical realist synthesis inspired approach to understand if the programme theory remained true. To support this, the M&E agents together with key stakeholders developed a framework for analysis and assessing the relative importance of different interpretations. This framework used an analysis of intervention, context, mechanism, outcome (ICMO) configurations to draw conclusions about the relative importance of different factors in producing observed results and in what context mechanisms are leading to programme outcomes. More description of how realist synthesis principles were applied in this evaluation is described in the box below and in Annex 4 - Methodology.

Box 1. How realist synthesis principles were used in this evaluation

To support the synthesis of gathered data, the M&E agents employed a realist approach that used an analysis of intervention, context, mechanism and outcome (ICMO) statements. The statements were used to draw conclusions about the importance of different factors in producing the observed results. These statements separate out those factors which are inherent to or directly under the control of the programme as interventions (I), from other contextual factors (C) and mechanisms (M) that are not, to give the formulation I+C+M=O (ICMOs). Clear articulation of what we mean by mechanisms is particularly important. Our framework defines them as the causal forces, powers or processes that generate a change within an intervention – including the forces that influences decisions people make a result of the programme intervention.

Identifying ICMOs at the right point in the theory of change and at the right level of detail to help with future decision-making is key. The evaluation aimed to identify a subset of the most important mechanisms for the purposes of the selected evaluation questions in conjunction with programme stakeholders. The ICMO configurations selected were mapped to the programme theory to allow for an interrogation of the ToC. The M&E agents identified a mixture of meta or programme level ICMO configurations and some "middle and lower theory" ICMOs (where the M&E agents anticipated evidence would be available) to understand how and why short-term outcomes had happened. As the programme is still in the early stages (with at least two more substantive evaluations planned) the aim of the iterative realist synthesis framework was for it to be useful for future evaluations.

The M&E agents developed the initial ICMO statements, using an internal brainstorming session to generate and then analyse key hypotheses. The ICMO statements were then tested with and further refined based on feedback from DfID and BEIS. The learning from this evaluation will be used to revise the hypotheses and ICMOs further, and future evaluative activities will provide ongoing feedback for the ICMOs as more evidence is gathered.

The full ICMO statements are available in Table 14 in the methodology annex but an abridged version, focusing on the mechanism and outcomes, is given below:

- **Demonstration Effect –** CP3 funds/investments achieve commercial returns (M) leading new investors to perceive risk and returns in this sector differently and increased investment in LCCR outside the CP3 investments (O).
- **Anchor Effect –** Public and private investors see HMG as a trusted investor in CF and ACP and reassess risk and reward (M) prompting their investment in these funds and allowing the funds to reach financial close (O).
- **Strategic Support –** Fund managers actively help companies achieve their business plan (M) resulting in commercial success and increased return for investors (O).
- **Investment Mandate –** Fund managers select and maintain investments that are compliant with HMG mandates/requirements (M) resulting in investments that generate environment and development impacts (O).
- **Capacity Building (SCAF) –** SCAF-supported companies are able to develop in a commercially sustainable manner (M) resulting in access to conventional finance to reach financial close and flowback the SCAF financial support (O).
- **Track Record –** Fund managers can develop their capacity to research and invest in LCCR opportunities in a financially secure and supportive environment (M) allowing them to demonstrate their track record and raise additional private financing (O).
- **ESG** - CP3 incentivised the development of systems to apply ESG safeguards across the funds' investments (M) making them more attractive to outside investors (O).
- **Programme Results** – Projects are implemented according to agreed timeframes and to appropriate technical standards (M) generating the envisaged results, including finance leveraged and development and environmental benefits (O).

Once data was collected, it was coded and organised in relation to the various evaluation questions and ICMOs. More information on the outcome of this coding is described in the methodology annex.

Several findings were generated based on analysis of evidence by ICMO configurations, such as those around HMG acting as an anchor investor (Finding 5) or the role of the investment mandate (Finding 19). More importantly, however, the ICMOs structured and guided data gathering and analysis throughout the MTE, influencing many of the findings presented. The ICMOs provide a framework against which data was collected, coded and then analysed, leading to the generation of findings related to the component parts of the ICMOs themselves, for example in Finding 9.

The M&E agents identified a series of limitations to the evaluation, such as data availability, stakeholder bias and maturity of the programme (see Annex 0 Limitations to the overall assessment). These were mitigated by the robust approach to evidence generation and analysis taken by the M&E agents, the iterative process applied to develop findings and use of multiple methods to triangulate.

4 FINDINGS

The sections below present detailed findings for each of the evaluation questions. We directly answer each, presenting evidence used to make a conclusion and provide analysis on how and why results were as observed. The evaluation questions are answered in order with the exception of evaluation question 1, which is answered last as this enabled better flow of analysis. We also provide alternative theories as CP3 is a complex, long-term program with a multitude of external factors that influenced results.

4.1 Are investments resulting in the outputs, outcomes and impacts expected in the CP3 Theory of Change?

To date, CP3 has met the objectives of the business case and delivered outputs, outcomes and impacts in-line with its Theory of Change. Significant finance has flowed from CP3 funds, acting to seed and grow companies and projects, delivering development and environmental benefits in-line with expectations and help mobilize almost US$10bn in co-investment[6]. Investments in the portfolio went to companies and projects that are supporting low-carbon climate resilient technologies, although mitigation investments achieved a much greater share than expected and climate-resilient or adaptation investments much less. In terms of regional breakdown, there was a clear skew towards investments in lower-income countries which are considered more "additional", compared to global trends. Some investment did happen in regions and sectors where there was already significant private sector activity, but this fell within the expectations of the business case.

Finding 1: ACP and CF portfolio funds have made 77 investments in companies and projects to-date encompassing ten different LCCR sectors. The portfolio is much more skewed towards mitigation than originally anticipated while adaptation investments have been much lower than expected.

Since 2014, ACP and the CF investee funds have invested in 77 individual investments in ten sectors. Renewable energy (RE) makes up 76% of the total investment by value. The remainder is made up of small shares from other sectors – including 6% in waste management, 5% agriculture and forestry, 4% resource efficiency, 3% in energy storage and grid services, 2% water, 2% clean transport and the remainder in energy efficiency and green buildings. These sectoral trends are roughly in line with overall market trends. The Global Landscape of Climate Finance showed that in 2017, 78% of climate finance went to investments in RE (CPI, 2017).

In terms of climate impact, 65% of investments could be classified as low-carbon, having a *direct* mitigation impact. These are investments that reduce and report GHG emissions. Twenty three percent of investments have potential *indirect* mitigation impacts. Examples include software platforms to manage RE projects or batteries used in electric vehicles. Six percent have other environmental impacts such as clean water and 2% have potential indirect adaptation impacts. These are investments with indirect adaptation relevance; where a certain technology or service could contribute to adaptation, but this is not an explicit part of the business model. The three companies with indirect adaptation impacts are companies with links to agriculture: one aims to improve plant genomics, the other focuses on reducing needs for chemical fertilizers and the last provides climate sensing technologies for the agriculture sector. While these technologies will likely allow better management of climate impact, without a specific context for their application, we cannot make an assessment on their contribution to adaptation. There were no investments with

[6] We make the conscious choice of using the term "co-investment" as opposed to "leverage". Leverage would indicate a direct cause-and-effect relationship between an investment and subsequent mobilization. Given the complexity of the program which involves more than 190 individual actors and dozens of investments at different timescales, such a direct attribution is impossible to establish. Instead, we rely on complementary contribution analysis and additionality analysis to shed light on the role that CP3 played in this mobilization of finance.

direct impacts on adaptation. Adaptation is highly context-specific. The type of climate vulnerability targeted, and subsequent response should be well defined and reported to consider a given activity to have direct adaptation impacts.

Finding 2: CP3 investments have produced development and environmental impacts that exceeded expectations; deploying a large amount of RE capacity, creating jobs, and avoiding CO_2 emissions.

The CP3 ToC has six outcomes: four related to environmental or development outcomes; one about market development; and one about investment profitability. Regarding the RE and climate outcomes, evidence gathered for the Results ICMO hypothesis indicates CP3 investments are contributing to increased RE capacity and GHG emissions reductions. As of 2017, CP3 investments have contributed to the creation of 8,758 jobs[7], helped avoid 4.6 million metric tons of CO_2 emissions and led to the installation of 3,989 MW of RE capacity (Figure 1)[8]. These figures are not adjusted for attribution or additionality (the corresponding adjusted results are found in the Annual Review 2018).

CP3 is significantly outperforming (+277%) the expected milestone for installed capacity of RE. This is due to (1) larger share of RE investments than expected (~65% vs 45% expected) (2) much lower costs of RE than forecasts and (3) highly leveraged financial structures used by investee RE companies and projects. Two investee companies – Panda Green Energy Group Limited (China) and Skeiron Renewables (India) are outliers that contributed more than half of results.

While the performance to date has been strong, CP3 is still relatively early in its investment period. It will be important to continue monitoring the pace of investment activity as there is a lag between investment and achievement of results. In the last twelve months, ACP's investment activity slowed down which may impact the future achievement of KPI results although it has recently picked up again with two new investments pending Investment Committee approval.

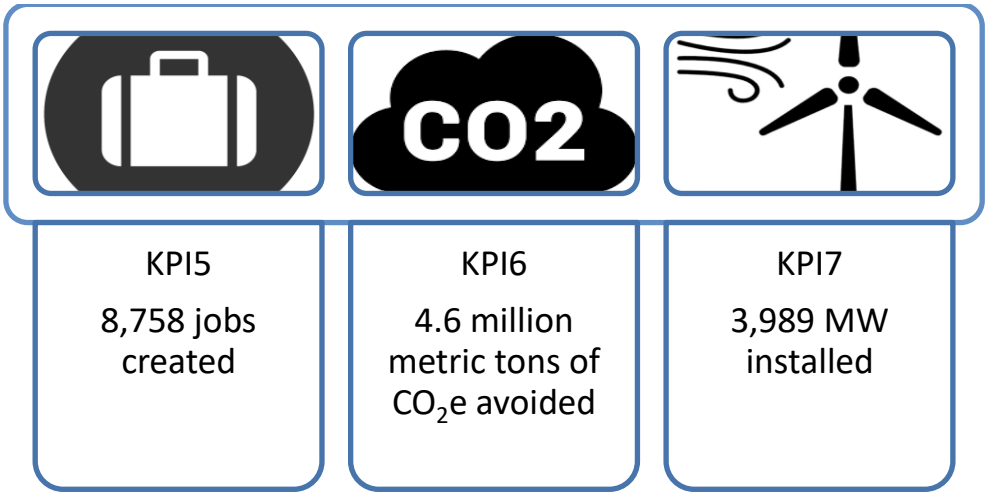


Figure 1 Environmental and Development KPIs of CP3 cumulative 2012-2017

In addition to the assessment of KPIs to understand environmental and development impact, during the course of the M&E assignment, we have also undertaken three investment-level case studies to gain better insights on qualitative aspects of the investments. There are important environmental and development impacts not currently tracked by KPIs, for example, the management of waste and more efficient use of resources which have indirect mitigation impacts. One case study focused on

[7] Current reporting from CF sub-funds does not provide gender disaggregation of jobs.

[8] These totals are not adjusted for additionality and attribution which is considered when reporting to the ICF.

Anuvia - a company that developed a patented process to produce high-grade chemical fertilizer from low-grade organic waste. The technology can enable resource efficiency and improved waste management in developed and developing countries and can also reduce pollution from nitrogen runoff on agricultural land. Because these impacts are indirect, and no methodology exists to estimate CO_2 emissions reductions, impacts from Anuvia are not incorporated in the GHG results of CP3 (for details see Anuvia Case Study).

Another example is ColdEX, a refrigerated transport company in India which is expanding the availability of refrigerated transport and cold storage for food. Increasing the amount of refrigerated transport and storage in places that previously lacked access to it can help reduce food spoilage, wasted resources - including energy, land and water for its production and their associated GHG emissions and contribute to food safety (for details see ColdEX Case Study).

Some companies are also giving back to their communities. For example, Symbior Solar in Thailand provides 1% of its electricity production to local public buildings such as schools and hospitals free of charge (For details see Symbior Case Study). As to be expected given the maturity of the investments, none of the case studies collected evidence on the potential contribution of CP3 investments to gender or social benefits, but there could be opportunities to collect this impact as part of future case studies. These case studies highlight the wide range of environmental and development impacts produced by CP3 investments and also the need to carry out qualitative assessments of development impact results in addition to logframe data collection.

Box 2 – Tracking the performance of the ICF

The ICF tracks the performance of its programmes using 16 KPIs but all are not applicable to every programme and vary depending on objectives. CP3 uses 6 KPIs to track and report performance to the ICF. These are:

- KPI 5 – Number of direct jobs created as a result of ICF support
- KPI 6 – Change in Greenhouse Gas (GHG) emissions as a result of ICF support
- KPI 7 – Level of installed capacity of clean energy as a result of ICF support
- KPI 11 – Volume of public finance mobilised for climate change purposes as a result of ICF funding
- KPI 12 – Volume of private finance mobilised for climate change purposes as a result of ICF funding.
- KPI 15 – Extent to which ICF intervention is likely to have a transformational impact

4.2 To what extent is private equity provided by CP3 leveraging additional private and public finance for low-carbon climate resilient technologies in developing countries?

Finding 3: HMG's investments in CP3 have received significant amounts of public and private co-investment - in line with expectations in the business case. The total contributed by other investors in CP3 investee funds, projects and companies was US$9,164m[9] with 71% coming from the private sector.

Leverage within CP3 occurs at three levels:

[9] This total excludes the total amount of capital in the Catalyst Fund and ACP, giving a picture of downstream mobilization of finance

1. *Main fund level* - consisting of other limited partner co-investors within ACP and CF. These were mainly donor governments,
2. *Sub-fund level* - In the case of CF which invests in other PE funds, other limited partner co-investors in those funds
3. *Project level* - additional equity and debt invested at the level of individual companies and projects.

Leverage at all three levels is tracked and disaggregated by type of funding (equity or debt) and type of investor (public or private) and reported in KPIs 11 and 12. Figure 2 below shows the overall volumes of co-investment by public and private investors within CP3 investee funds and projects.

The ICF provided £130m to CP3, or roughly US US$200m at the time, with US$174m invested in the two PE funds and the remainder allocated to technical assistance.

At the main fund level, ACP and CF have attracted US$691m in co-investment from public and private investors. At the sub-fund level, CF has invested in ten funds with UK participation that have received co-investment of US$1,727m. At the project level, the ten CF portfolio funds, together with ACP, have invested in 77 projects which have in turn received US$6,746m co-investment.

The majority (71%) of co-investment has come from private sources, with an increasing share of private investors as investment flowed downstream, as expected in the business case.

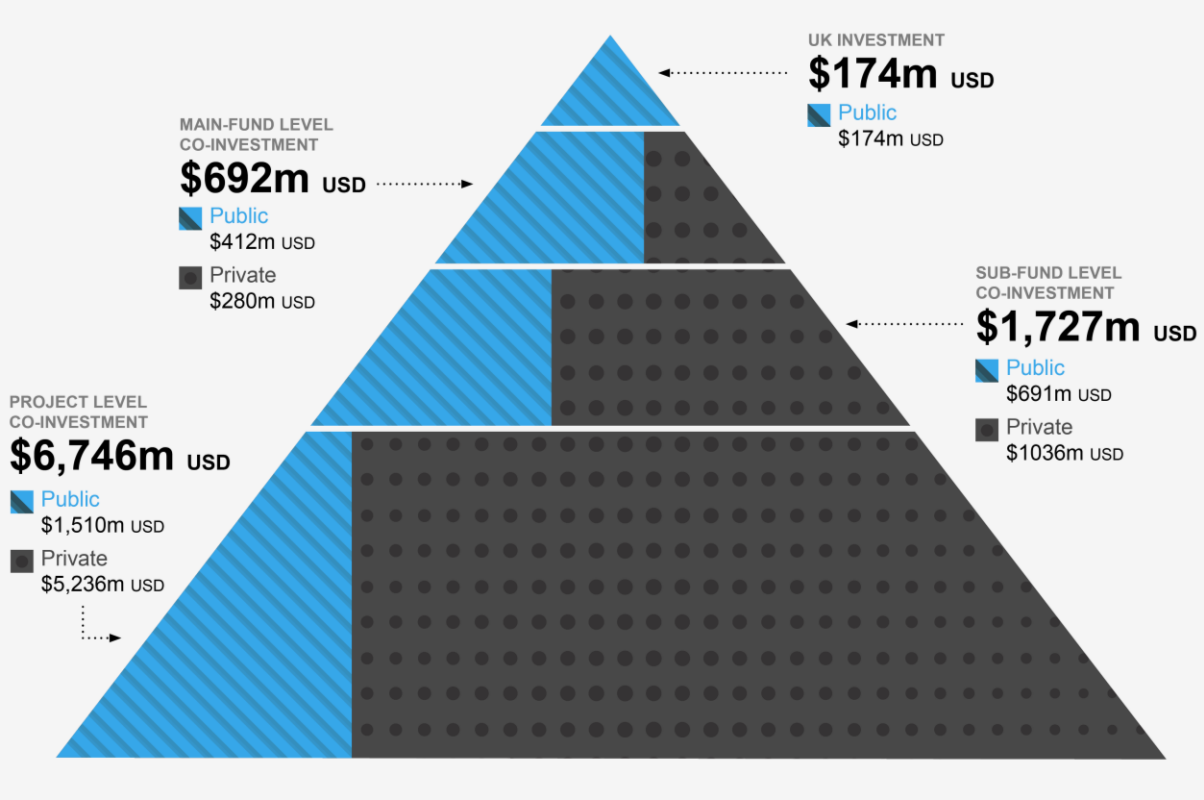


Figure 2 Overall co-investment by public and private investors within CP3 investee funds and projects

Figure 3 shows the overall landscape of CP3 climate finance and highlights the broad trends in terms of regions, sectors, and climate relevance. Investments are classified by region, the type of investment (growth equity or infrastructure), the sector, and the climate impact area. Growth equity is an investment in the "growth" stages of a company to allow it to grow and implement its business plan. Infrastructure investments differ in that they consist of equity shares for individual project finance transactions in RE, plants and facilities or other types of infrastructure. The nature of project finance means that significant amounts of debt are used and leveraged to finance projects. This is not the case for growth equity. Most of the leverage in the portfolio comes from infrastructure investments.

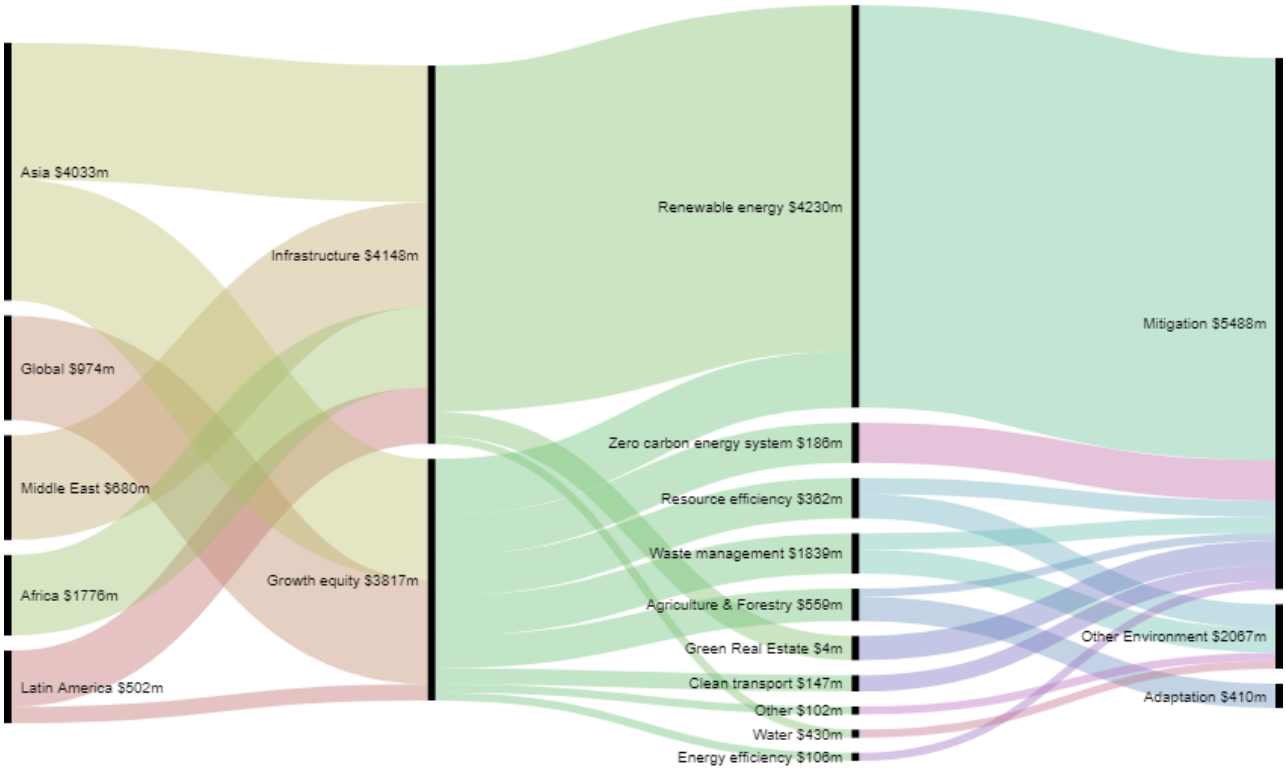


Figure 3 Landscape of CP3 Climate Finance

Finding 4: Overall, the CP3 investment portfolio shows a definitive shift from BAU investment trends with a much stronger focus towards lower-income countries compared to global averages, demonstrating additionality. However, there is still a large portion of investments occurring in countries already receiving significant amounts of private investment.

The CP3 fund portfolio is significantly skewed towards lower-middle income and low-income countries (combined total is 47%) compared to global trends (8%). Regionally, investments have strongly focused in Asia with 35% of the total capital invested, Africa had 26%, the Middle East 16%, Latin America 10% and the remainder – 12% in companies headquartered in developed markets with intent to expand to developing markets.

Error! Reference source not found. shows the distribution of global PE investment in climate relevant sectors in the year 2015 compared to the CP3 portfolio. The overall CP3 portfolio (blue line) skews towards higher additionality (lower income, poorer investment environment) countries compared to market trends (red line). Upper middle income (UMIC) and high-income countries (HIC) together received 92% of total climate investment in emerging markets globally in 2015. This shows CP3 definitively breaks from the BAU towards lower income, high additionality countries.

Given the objective of CP3 to leverage significant amounts of private finance, a portfolio that is fully allocated to lower-income countries is not possible. There is a significant trade-off between additionality and the ability to leverage private finance. Investments in high additionality countries are less able to attract private investment while low additionality countries already have robust private sectors and investments are more likely to attract co-investment.

Finding 5: CP3 played a cornerstone role in the creation of ACP and CF

There is strong evidence that HMG was catalytic in accelerating the engagement of IFC and ADB, based on evidence collected through our realist synthesis approach that supports the importance of the "anchor effect" mechanism in creation of these funds. HMG provided the impetus that led to the creation of the funds, approaching ADB and IFC as potential partners to place capital into the PE space as a solution to scale climate investment.

While neither institution had managed LCCR PE funds previously, they both were committed to scaling climate finance and had some relevant expertise. There were also limited alternative institutions with the capacity to manage the scale of funding envisioned.

Fund raising for both CF and ACP was challenging as the combination of climate and developing country focus presented greater risk for institutional investors not familiar with either. In addition, both CF and ACP were first-time funds (albeit with credible management and backing). For CF, the higher fee structure associated with a fund-of-fund (FoF) model prevented several institutional investors that had expense ratio caps from investing. Some investors (e.g. pension funds) were also constrained by their potential need for liquidity (with 10-year closed PE funds not well matched in terms of profile). Other investors had the scale and capacity to make direct investments in the sector without the need for a FoF approach.

Finding 6: HMG's role was important to the other investors in the fund, but some of these investors, particularly the public investors, would have likely invested in other climate initiatives through other vehicles if the CP3 funds had not been established.

While there is strong evidence of the role HMG played in the establishment of these two funds (as outlined in our ICMO hypothesis), it is likely that, had the funds not been established, many of the other LPs in the fund would have invested climate finance, just through different mechanisms. In testing the evidence collected against the hypothesis presented in the Anchor Effect ICMO, it was found that the public investors shared a strong commitment to climate change in policy priorities and fast start finance commitments made as part of global climate agreements. All public investors were also strongly committed to using public funds to help scale private finance to achieve development impact. These intents were in place before the establishment of CP3 and its funds, but using the ICMO analysis, there was strong evidence that HMG played a role in influencing investment decisions towards PE. Stakeholder interviews suggest that UK participation (in the design, capitalisation and governance) was seen as a positive. UK development agencies are held in high regard by other donors and created comfort for donors with less knowledge and resources to invest in the funds. It should be recognised that several public donors already had strong relationships with the IFIs (sitting on their boards and previous collaborations), so they may have invested without the UK involvement. This is something that we cannot determine.

While there were some private investors with a thematic or ethical interest, most of the private investors approached their investment through a commercial lens – with an emphasis on the potential risk and returns, the need for diversification, and exposure to new markets and asset classes. Based on evidence collected from private sector LPs, the commercial credibility of the fund manager was also important and both ACP and CF were managed by credible asset managers and backed by well-regarded General Partners with a track record in dealing with private sector interests. This was a primary driver for private LPs and one which HMG played a role in establishing through early negotiations and programme design. In addition, evidence suggests the leading role played by HMG in shaping the programme and fund structure, through the CP3 mandate and contractual arrangements, offered comfort to private investors by providing opportunities which were sufficiently familiar, minimised risk and offered potential for reasonable returns, particularly in the case of the CF FoF structure.

UK capital (alongside that of other donors) did play a key role in ensuring that the initial fund raising was suitably large to facilitate private sector participation. The scale of the investment ensured that fees for both CF and ACP would be acceptable relative to the size of the overall fund. Secondly, many private investors have minimum investment thresholds (e.g. US$20 million) and maximum

share of fund thresholds (e.g. 10%). The UK investment created sufficient scale for these criteria to be met. The size of early UK commitments also provided credibility with private investors and facilitated initial conversations around fundraising.

There were several different motivations influencing investors decisions related to engagement with the CP3 funds. Some of the different motivations of the LPs (both private and public) of the CF and ACP captured by the evaluation are summarised in Table 3 below. While this analysis is useful in determining the key motivations that facilitated the successful fundraising of the primary CP3 funds, as these are very different investors than project level investors, it offers a restricted insight into the motivations of the wider investor pool where there is higher diversity of investors and strategies. There is evidence that many of the investors were influenced in some part by all of the identified motivations, and so a high, medium and low ranking has been applied to indicate which were the most important factors influencing the investment decision to different Limited Partners. Further, in one instance a negative score has been applied where a reason positively influenced one group of investors, but where there was evidence where it was a deterrent for the other group of investors.

Table 3: Primary Investment Motivations of Limited Partners to the CF and ACP

Reason	Public Investors	Private Investors
The trusted reputation of HMG as a climate and development impact investor	High	Low
Due diligence conducted and shared by HMG	High	Medium
The mandate of the CF and ACP negotiated by HMG	High	Medium
The potential development and climate impacts to be achieved by the funds	High	Medium
The governance and support provided by HMG to CF and ACP	Medium	Negative
The structure of the CF and ACP co-designed by HMG	Medium	High
The potential for investment returns offered by the funds	Medium	High
The strategic diversification of investments offered by CF and ACP	Low	High
The anchor capital provided by HMG to allow CF and ACP to meet minimum investment thresholds	Low	Medium

4.3 Did CP3 contribute to solving key barriers in the markets in question (e.g. information asymmetries, agency problems)?

Finding 7: At the time of inception, the CP3 programme and its theory of change were relevant and appropriate to address key barriers, especially the availability of early-stage equity. However, since the program started, some markets have rapidly advanced – particularly renewable energy in Asia. To remain relevant and additional, the fund managers should continue expanding to areas with less private sector interest.

The business case identified key barriers to LCCR investment in emerging markets which CP3 aimed to address. The most significant barrier was the availability of early-stage equity. As the Business Case stated: *"Equity capital is the cornerstone form of capital for any private business. Without equity capital, other forms of capital (such as debt, asset finance, insurance, trade finance and guarantees) cannot be accessed."* To address this gap, CP3 focused on the provision of early stage PE. As the "*starting point in the financing chain*" which would enable project and companies to develop, grow and raise additional capital. The use of PE also had the dual purpose of bringing with it other forms of assistance *"PE/VC funds expend a lot of resources finding companies that are in need of their capital and assistance. Fund managers then work with promising companies to refine their strategies, business plans, and management teams to turn rough projects into viable ones."*

As expected in the business case, CP3 investments through CF and ACP contributed to bringing together an ecosystem of institutions that include over 90 public investors, 140 private investors and 12 PE funds to undertake 77 LCCR investments to-date. Early stage PE was indeed one of the "starting points in the financing chain", as evidenced by the US$3.23bn in equity and US$3.5bn in debt subsequently mobilized by CP3 fund investments.

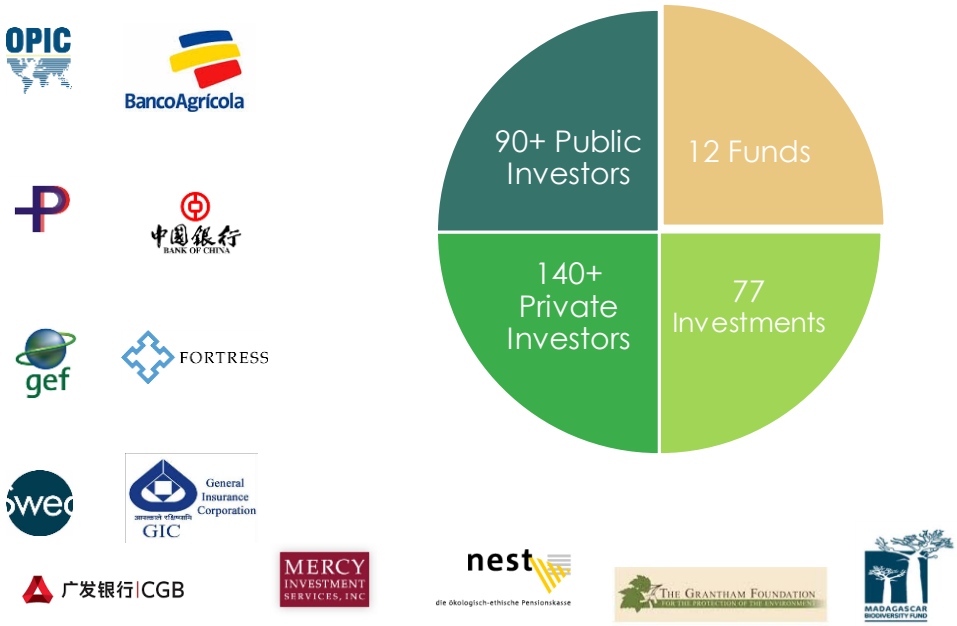


Figure 4 CP3 has helped bring together an "ecosystem" of institutions supporting LCCR investments in emerging markets. Some of these institutions are shown above

A wide range of public and private investors participated in the financing of CP3 projects (Figure 5). On the public side, financing activities were dominated by development finance institutions (DFIs) who provided 32% of the total, bilateral finance institutions provided 27%, climate funds 13%, governments and agencies 7%, national financial institutions 4%, and other public investors 17%. The private side was much more diverse with the majority provided by private equity and infrastructure funds 24%, institutional investors 20%, commercial financial institutions 16%, companies 10%, corporate actors 7%, project developers 6%, high net-worth individuals 4%, state-owned enterprises 1%, and other private institutions 12%. The overall breakdown was dominated by private sector investors who provided 71% of the totals while public investors provided 29%.

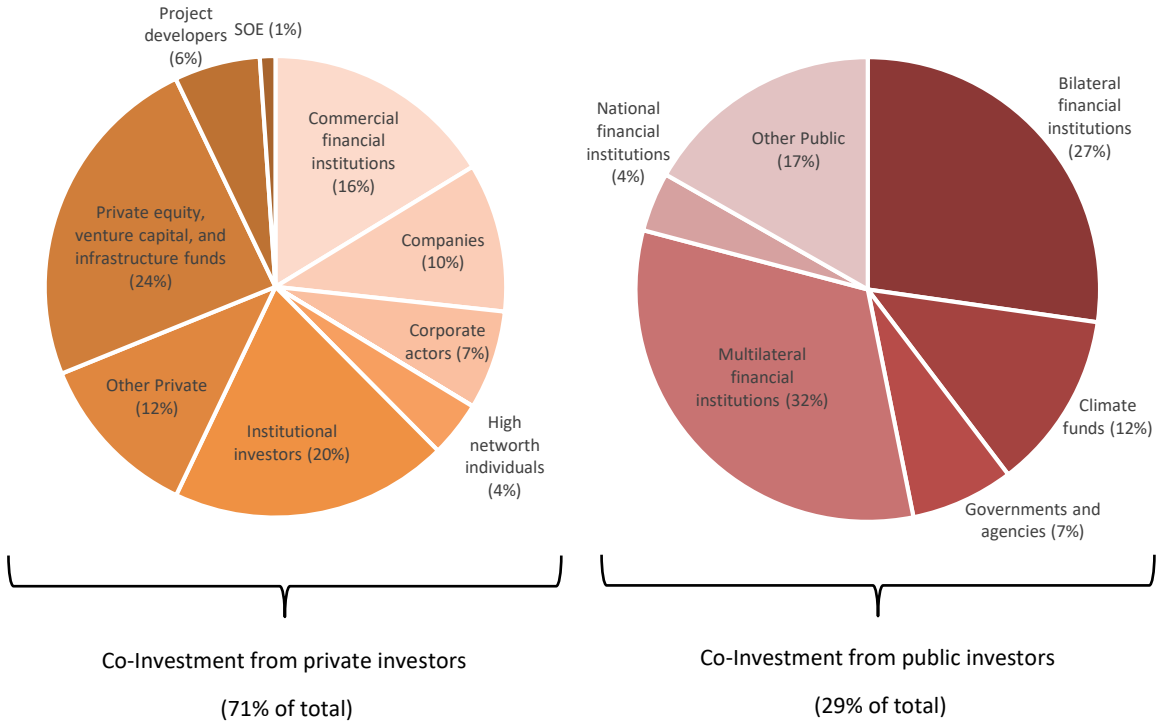


Figure 5 A wide variety of public and private investors co-invested with CP3

To further understand whether the investments by CP3 funds were catalytic and addressed a financing gap in the markets in question, we used co-investments levels as a proxy for the availability of early stage equity in these markets. We found that investments in high income countries and upper middle-income countries garnered significant equity co-investments from sources other than the CP3 funds while investments in lower middle-income countries and low-income countries did not (Figure 6). This is as expected and highlights the strong correlation between a country's economic development and its ability to attract investment. However, we also needed to understand if the CP3 investment was the driver for co-investment or simply a party to it. For the projects that had the highest co-investment amounts which included large RE projects in China and South Africa, we found that the CP3 investment was one of the many parties providing finance and not the first mover which drove subsequent co-investment. This was not the case with investments in lower-income countries, such as those made in El Salvador. This leads us to conclude that in higher income countries, CP3 played a small role addressing financing gap while in lower-income countries, the role was significant and as envisioned in the business case and theory of change. CP3 investments add most value when they provide equity where there is a scarcity of it.

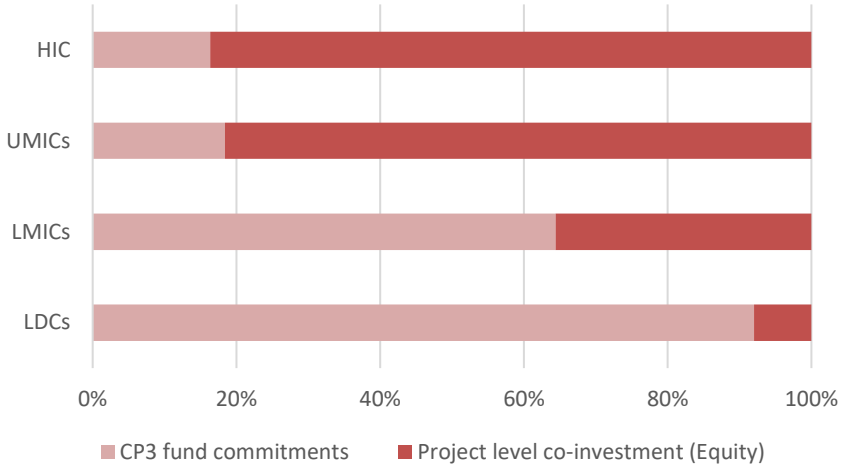


Figure 6 Investments in higher income countries are much more likely to attract co-investment

This finding does not negate the need for CP3, but rather highlights how programmes must be designed to be adaptive to market conditions. In 2010, when the CP3 business case was written, the global RE financing landscape and the market outlook for emerging markets looked very different from today. The world was still in the throes of the 2008 financial crisis and markets were still recovering from this shock. Global RE investment had dropped by 8% in 2009, and only China's investment in the sector increased that year (REN21, 2010). In 2009, emerging market PE fundraising dropped to US$32bn down from US$75bn in 2008 (Preqin, 2017). There was a lack of PE in the sector and a critical need to increase investment.

Since CP3 design in 2010, the context has changed rapidly in some markets and less so in others. Overall, PE fundraising has recovered throughout most emerging regions, averaging US$64bn annually from 2010 to 2016 (Preqin, 2017). The regional interest of PE investors changes annually. In 2010, the most attractive emerging markets for PE investors were China, Brazil, and India (EMPEA, 2010). Four years later, when the CF fund started investing in 2014, the most attractive regions were Latin America (excluding Brazil), Southeast Asia, and Sub-Saharan Africa (EMPEA, 2018). Since 2014, Southeast Asia has become the most attractive market for investors, and India and China have re-gained their spots among the top three most attractive markets (EMPEA, 2018). Further, across all these regions, investment in RE has increased dramatically. Developing and emerging countries invested US$36.5bn and China invested US$41.5bn in renewable power and fuels in 2010. By 2017, RE investment in China tripled to US$126.6bn and new investment in other emerging markets increased by 72% to US$50.4bn (REN21, 2018).

The changing landscape is further confirmed through evidence collected via interviews with fund managers who cite competition for deals from other investors as a major challenge. Competition from other investors who are able to provide better terms is a major signal that certain CP3 investments are competing in markets with adequate availability of capital. This challenge seems to be particularly acute in Southeast Asia with ACP, where evidence from ACP and other Asia investors indicates that it is increasingly difficult to secure opportunities in the rapidly growing and competitive Asian markets, particularly when operating according to relatively strict mandates. This is illustrated in more detail in the third case study conducted by the M&E agents assessing the Symbior investment and by the choice of one of the CF sub-funds focused on Southeast Asia not to raise a follow up fund. This is also one of the potential reasons for the slow progression of ACP's portfolio.

The CP3 programme by design is adaptive, and because investment mandates have been found to be relatively flexible, we have seen innovation in the types of projects being financed as well as the structures, in order to achieve adequate IRRs. The PE funds seek at least a 20% IRR and this is no

longer available in simple RE project finance projects. Fund managers are expanding to other sectors and also innovating around financing structures to achieve higher returns.

In summary, we see that CP3 can play an important role in addressing barriers and achieving the objectives in the business case in lower-middle income and least developed countries, but less so in other markets, particularly for RE projects in upper middle-income countries.

Finding 8: CP3 has helped identify limitations and challenges associated with the use of the PE model. PE could be regarded as a transition structure and the maturity of these markets as an indicator of success.

Besides the lack of PE in Africa, Latin America, and the Middle East, other limitations associated with the use of PE have been identified. These include, but are not limited to, the long timeframes of RE development and the regulatory challenges in some frontier markets. These make the 10-year fund less than ideal for more complex projects which often require longer-term and different funding structures. The typical LCCR fund model was particularly well suited to growth equity and smaller scale RE (e.g. solar) projects in less developed markets. Providing only equity was seen as sub-optimal where investees need much broader pool of blended capital (equity, debt, mezzanine finance) over longer time horizons. As a result, many of the stakeholders interviewed noted that fund managers were exploring setting up new capital structures, and evolving to become asset management and investment platforms, rather than pursuing PE fund opportunities alone**.**

Also, in larger, more developed markets, the role of project developer was increasingly being played by larger utilities and developers using balance sheet financing at much lower cost. It is increasingly difficult for PE funds to compete in these markets. This marks an evolution or transition of the market, moving from a need for pure capital to a focus on more advanced, stable and consistent forms of financing.

Finding 9: CP3 has sought to address hurdles facing LCCR investments in emerging markets through supporting mechanisms of change[10], such as the demonstration effect and development of fund manager track records to ultimately influence external actors' perceptions of risk and return in the market. The evaluation found supporting evidence for some of the mechanisms, but less for others. This is to be expected given most of the funds are still in the investment period and have not yet started exiting investments.

Outside the core barrier of availability of equity financing in target markets, other barriers identified in the business case still exist, and some of these have been less of a focus for CP3 over the first four years. These include the lack of track record of actors involved in LCCR development, significant costs and effort associated with project development, challenges facing the development of viable project pipelines, lack of stable governance and regulatory environments, difficulties capturing returns from pioneering work, benefits of carbon abatement not monetized, information asymmetry and agency problems, and lack of history of returns and perceptions of risk associated with investment in these markets.

The CP3 programme aimed to develop fund managers' track records[11] to increase their capability and make them more likely to raise future LCCR funds. However, only ACP and two first-time fund

[10] Many of these are the mechanisms captured through our realist synthesis framework. The two listed here are the ones identified as most relevant to changing perceptions of risk

[11] A mechanism that was explored as part of our realist synthesis framework, but where there was insufficient data available to understand if the mechanism was leading to the desired outcome. This is partly due to the maturity of the programme. More detail on how the evidence was coded against this statement is available in section 0

managers (LRIF and Armstrong) has been supported by CP3 so far, with others needing several years of promising investment track record before investment. For example, CF chose not to invest in Berkley Africa when first offered the opportunity, opting to wait three years to see how the fund developed. IFC and CF only engaged in the first close for three sub-funds and two renewable energy platforms[12], again allowing for track records to develop prior to their investment.

Improving investor perceptions continues to be hindered by market information asymmetry. Evidence thus far suggests CP3 has done little to mitigate wider market information asymmetries. For example, in the contribution analysis undertaken of the El Salvador renewable energy market, there was little name recognition for the sub-fund LRIF, and public information on their investments is highly restricted. This is in part due to the commercial sensitivity of the information required to impact investor decisions, and partly due to the early stage of the programme not yet having time to generate significant information. However, with an increasing number of investments being exited, increased engagement from investors with local banks and market players, and even the development of this report, it is anticipated that greater market information will be generated and disseminated in the future. In addition, in the investment in El Salvador, the sub-fund manager has been working with local institutions to support market growth and improve their understanding and knowledge. Likewise, Armstrong and The Blue Circle have had significant engagement with local Southeast Asian banks to improve their understanding of project finance and address the information barriers.

CP3 has not particularly focused on the development of a RE project pipeline; the major focus has been on the provision of finance, with an assumption that the market will respond to available finance through the creation of projects. However, there are still limitations to project development in more challenging environments. This is where other vehicles, such as SCAF, which provides both technical assistance and seed capital to project partners for project development, have played an important role supporting project development in challenging markets.

There is very limited evidence that CP3 investments are contributing to creating a more stable investment environment. While there has been some engagement with local banks or government agencies, CP3 lacks any direct policy intervention, relying on the anticipated indirect effects via increased financial flows.

Certain barriers to LCCR development that were outlined in the business case, such as limited capacity and track record, and addressing information asymmetry, have not been as large a focus and priority has been given to achievement of investment returns, implementing governance standards and Environmental, Social and Governance (ESG) safeguards, and actual project implementation.

The business case adequately captured the existing barriers to LCCR development although some barriers had greater importance than anticipated. The investment environment in a country is an example of one. Regulatory, policy and legal frameworks and the depth of capital were some of the most important indicators of the potential for LCCR investments to develop. The CP3 programme was not designed to address these factors specifically and some of the outcomes expected in the business case were adversely affected by these factors. To be able to reach countries with very poor investment environments, investment programmes like CP3 would benefit from complementary initiatives, such as technical assistance to address investment environments.

4.4 Did CP3 represent Value for Money for HMG?

Finding 10: CP3 delivered value for money to HMG. Inputs that include the management fees and administration costs were in line with other programmes and represented value in terms of the

[12] A platform is an open-ended investment vehicle that acts more like a developer. They can also manage private equity funds. In Alcazar, for example, CF invested in the managing company Gaia as well as in the fund Alcazar Energy.

outputs achieved for the KPIs. These outputs, in turn, are contributing to the achievement of the programme's theory of change as foreseen.

Our assessment used DFID's 4E approach, considering Economy, Efficiency, Effectiveness, and Equity. In terms of economy, we assessed the inputs and whether these represented the best value. CP3 is unlike most development assistance programmes in that it is expected to produce net gains from its investment activities. These costs are the following:

- *Management fees paid to CF and ACP.* These are composed of an annual fee paid for assets under management and a "carry fee" that is a percentage of profits and payable if the IRR of the fund reaches a certain threshold. Management fees were benchmarked by an external PE specialist engaged to advise DFID prior to the investments in the fund. The specialists determined fees were at or below market rates for similar funds according to the CP3 Business Case.
- *Administration costs for the programme* include operations management, consultancy fees and monitoring and evaluation. The program development cost totalled £485,000 according to the business case and monitoring and evaluation costs were £644,681 from 2014-2018 or £161,170 annually. As a share of the total size of the CP3 programme, annual evaluation costs were 0.12% which is low compared to benchmarking data. Benchmarking data is very limited. For philanthropic funders, a Hewlett foundation survey found that organizations spend 1.5%-7.5% on average. No reliable sources were found for benchmarking evaluation costs for ODA funders. DFID and BEIS could compare costs to other evaluation programmes within their portfolio.
- *Potential losses or gains from investments* in the PE funds. It is too early to determine the extent of gains or losses from the investments in CP3. Should investments result in losses, HMG would bear a cost. Given the early stage of the programme, we excluded potential losses and profits in assessing its economy and focused on the fees and administration costs of the programme.
- *Grant costs for the technical assistance programme*. This includes the grants paid to SCAF, Mercer and IFC TA.

Efficiency – Did CP3 maximize outputs in consideration of its inputs?

As discussed in Findings 1-3, CP3 delivered outputs in line with expectations in the business case and contributed to leveraging other actors to provide finance for investments that to-date have produced 8758 jobs, 4.6m tCO_2 avoided and 3989MW of renewable energy capacity installed. Once the total cost of the program is known and gains or losses realized, a full assessment could be undertaken to estimate the input costs in consideration of its outputs using metrics like £/tCO_2 avoided. At this stage of the programme, it would be too early and potentially misleading given potential gains or losses to assign a value to the outputs of the programme.

Effectiveness –Did CP3 achieve its objectives as set out in the business case? How did it compare to alternatives?

Considering the early stage of the programme, we believe the programme has achieved its objectives as set out in the business case as described in Findings 7-9. The evaluation team undertook an in-depth comparison between CP3 and GEEREF, which had the most similarities and operated roughly in the same time frame. This is discussed in finding 24 and it was found the design of CP3 was appropriate and effective considering the objectives it sought to achieve.

Equity - Did CP3 reach its intended beneficiaries in an equitable manner?

As shown in Findings 3 and 4, the portfolio of CP3 investments shows a clear skew towards lower-income countries compared to global investment trends. In 2015, 92% of global climate finance went to middle and high-income countries and 8% to low income countries. Within the CP3 portfolio, 47% of investments went to lower-middle income and least-developed countries. This is a very significant break from global investment trends, clearly showing a more equitable split of investments within

the portfolio. Given that a primary objective of CP3 is to achieve commercial viability and commercial opportunities are significantly more limited in lower-income countries, we think that this breakdown is appropriate.

Finding 11: CP3 has relied on the implementation of effective and robust governance and management systems to generate results as anticipated. While these have been important, implementation of appropriate systems may have contributed to delays in deployment of capital.

CP3 has required that CF, ACP and SCAF rely on clear, transparent and robust governance and management systems. The requirements for each are outlined clearly in a range of documents including limited partner agreements (LPAs), project documentation, operational guidelines and environmental and social management systems (ESMS). These governance and management systems have given confidence to HMG and other partners that funds will be used effectively and to support investments that don't generate negative social and environmental impacts.

These systems have also required high standards of reporting on investments, which evidence suggests is being met. LPs to the main funds were largely satisfied by the level of detail and quality of communication shared. Investment projects have generally been implemented to high technical standards, including implementation of robust corporate-social responsibility systems, for example employment of dedicated ESMS personnel, development of dedicated training programmes particularly in terms of health and safety, and completion of numerous utility scale RE installations. Where significant ESG events have been reported, the CP3 governance system has ensured thorough investigation and engagement with relevant stakeholders. Many of the events have resulted in the strengthening of the governance processes at both the investor and investment level. Furthermore, systems have ensured a cascade of the CP3 mandate throughout the system with sub-funds and investees able to comfortably discuss the mandate when asked – a clear indicator of robust and effective communication systems.

However, the development and implementation of robust systems have also contributed to delays, which have impacted the speed in which CP3 capital is and was deployed. Establishment of the necessary governance mechanisms have added burden at the fund and investment level, with the development of in-depth ESMS manuals or introduction of new reporting requirements. As a result, some investments into sub-funds have been delayed while sub-funds establish systems that comply with CF requirements and equally there have been delays to project level investments while companies establish project level processes. Similarly, SCAF experienced a slow start as internal UN Environment rules required the public procurement of the Trustee services, with the procurement process implemented and fully complete 32 months after project start. While the SCAF agent was able to negotiate and sign agreements, disbursements were put on hold. All these delays have impacted the speed of deployment of capital.

It has also been noted that some investees consider the reporting requirements overly onerous which can cause delays in project and overall portfolio reporting, as will be discussed further below. It is also important to note that while the standards ensure effective implementation, they can pose a potential barrier to entry. LCCR fund managers without the capacity or resources to meet CP3's standards of governance and reporting may not be invested in, even when they align well with the CP3 objectives.

Finding 12: Monitoring and management systems have been effective in capturing a comprehensive view of the portfolio results, which is challenging given the diverse nature of the investments and the experience and incentives of CP3 stakeholders to generate reporting. However, there remain challenges around the quality and availability of data.

The monitoring and reporting systems of ACP, CF and SCAF have been effective in capturing and communicating the broad results of funds. However, the investees of CP3 report numerous and varied sources of data, which has implications on the quality and consistency of the data provided. Also, not all stakeholders have the same level of capacity for results reporting. There is also no

process within the funds to independently verify the environmental and development results that have been reported.

Another challenge is that the results for CF and ACP are not fully comparable. While both funds follow ICF impact reporting guidelines, they use slightly different methodologies and assumptions to calculate achieved environmental and development impacts and supply different levels of detail which makes meaningful aggregation of results challenging. For example, both use different emissions factors to calculate avoided emissions. Additionally, ACP provides significantly greater disaggregation of jobs and RE installed. Thus, both funds meet the KPI requirements, but one provides more detailed reporting.

In terms of data availability, the evaluation encountered several key challenges. The first is the commercially-sensitive nature of much of the information which limits the data available to the M&E agents. Even during confidential interviews, many CP3 stakeholders were only prepared to disclose limited information. Second, reporting mainly provides aggregate results, lacking sufficient detail to cross check and validate. Higher standards and more detailed reporting requires significant resources which can be challenging for investment projects and fund managers. Evidence from SCAF suggests that projects and even fund managers struggle to communicate results and are less familiar with non-financial reporting requirements. Reporting is generally focused on GHG emission impacts and job creation results, and little to no incentive is provided to encourage reporting on wider social and environmental impacts despite the clear potential for some investments to demonstrate impacts in these areas. There are also challenges in estimating emission reductions for investments other than RE projects where there are globally accepted methods for GHG accounting. When reporting impacts, resource efficiency or more innovative projects face a lack of clear methods to support reporting.

The third challenge is related to the relative maturity of the programme. Only thirty-two percent of RE projects in the pipeline have been fully operationalized and have begun providing data for CP3's environmental and development results but many more are still in development and are not yet able to contribute to results. Finally, for many of CP3's long-term and wider impacts, it is too early to assess long-term results.

4.5 Did CP3 contribute to transformational change in the countries and markets targeted?

Finding 13: There are early indications that CP3 supports transformational change. However, it is still early in the implementation period of the programme, and the market for LCCR investment is changing rapidly.

Transformational change is defined as a change which catalyses further change, enabling either a shift from one state to another (e.g. from conventional to lower carbon investment patterns) or faster change (e.g. accelerating the shift towards low carbon economies by accelerating the deployment of LCCR capital). The factors behind these changes can be described as drivers, mechanisms and enablers, as illustrated in Figure 7 below. The connection between CP3 equity investments, demonstration effects and long-term changes in attitudes and investment patterns is at the core of the transformational potential of CP3. In addition, the long-term creation of institutional knowledge and capacity that enables greater investment is also considered transformative.

We assessed CP3's potential for transformational change across six criteria (demonstration effect, capacity and capability building, leverage, first mover, and innovation and technology transfer) that were defined in the inception report. Based on these criteria and the programme specific scoring

rubric that was developed[13], there is tentative evidence of change, and transformation is assessed as likely.

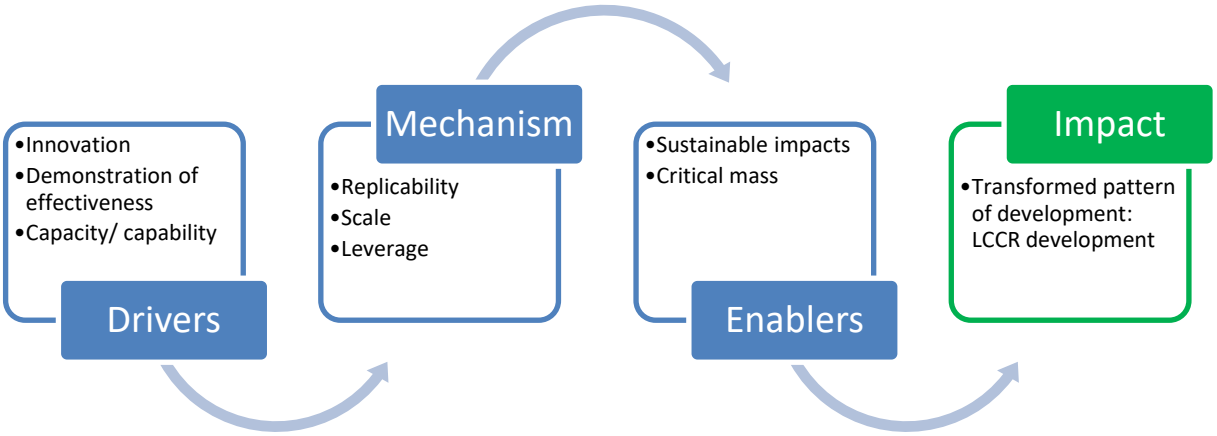


Figure 7 How CP3 can create transformational change

Demonstration effect: We do not have enough evidence at this point to determine whether the portfolio holdings will deliver IRRs in line with expectations and produce a demonstration effect. To meet the CP3 objective of demonstrating LCCR investments to the market and crowding-in private investors, CP3 investments need to perform in line with, or above, expectations of commercial investors. In 2016, average IRRs for renewable energy infrastructure in Africa, Latin America, and Asia are 10.3%, 9.3%, and 8.4% respectively (GMT, 2016). While this is about twice the rate in Europe or the US, private equity investors in emerging markets seek a risk premium on their returns and would expect returns of ~20%. CF funds Armstrong and LRIF have started to exit their investments, and the success of these exits varies, thus is it too early to make judgements on this criterion. Armstrong's first exit performs in line with objectives. Symbior, a solar project in Thailand, was exited with a multiple of 2.6x, corresponding to ~21% IRR over five years. However, the fund is also in the process of exiting a portfolio of three renewable energy holdings in the Philippines where the returns are much lower. LRIF has exited a portfolio of wind assets with a multiple of 1.3x on the investment cost. It was a significant exit for the fund as the investment made up roughly 40% of the portfolio size. The 1.3x corresponds to ~9% IRR over a holding period of 3 years. This is in line with average market returns of the sector in Latin America.

Capacity and capability building: There is some evidence that CP3, primarily through SCAF, has strengthened fund manager and LCCR developer capacity, but only to a limited extent. SCAF support has been very useful in helping cooperating partners accelerate early stage project development, both in terms of reducing the risk of entering new markets (e.g. through studies and resource mapping) and providing bridging finance for accelerated project development across a broader portfolio. However, there was only a limited impact of SCAF funds on increasing the capacity of the partners. When asked, partners acknowledged that SCAF had contributed to the acceleration of project development activities, but that they would have likely reached the same critical mass over slightly longer timescales without SCAF. That said, evidence suggested engagement with SCAF provided a level of credibility that was useful in relation to further fundraising and project development efforts. The most notable benefits identified were around improved capacity for ESG through SCAF staffing support.

Only one new fund manager has been supported by SCAF to reach financial close and no SCAF supported projects have reached financial close. CF has supported some investee funds reach

[13] This rubric is provided in Annex 10 below.

financial close, but usually through a follow-up or secondary fundraising round, rather than the initial fundraising.

Leverage: CP3 has shown extraordinary ability to attract co-investment on all levels and leveraged significant co-finance as shown in Finding 3. However, some of the largest projects that attracted co-financing would likely have happened without CP3 funding due to CP3's small stake in these investments. Further, many of the public and private investors on the main fund and fund level have investment mandates that motivated them to invest in LCCR investment.

First mover: CP3 supports a few investments that can be labelled as first mover but evidence on them and their impacts is extremely limited. Under SCAF, The Blue Circle (a SCAF implementing partner) has successfully seeded and secured financing for the first utility scale wind farm in Vietnam, including significant project financing from local financial institutions, a good example of a first mover investment although still very much in the development stage. Under Catalyst Fund, LRIF, for example, has built one of the first utility scale solar projects in El Salvador. There is significant evidence of market transformation in El Salvador where the RE sector has rapidly developed over the past decade, in part due to PE investments into the RE space. However, there is only limited evidence that CP3 investments contributed to this transformation. Although the CP3 projects were among the first solar investments in El Salvador, they made up only 10% of the solar auction awarded. In addition, a market analysis of the El Salvadorian market found that regulatory and policy developments had a far more significant impact on the market than increased availability of PE, with even the CP3 investments delaying commitments until the regulatory environment had stabilized.

Innovation and technology transfer: There are several examples of innovation and technology transfer in the portfolio. CP3 has invested in new technologies such as battery storage, organic fertilizer, and genetics technologies and investments have supported several patents. Other investments, could lead to technology transfer from developed to developing countries. There are also some investments in least developed countries, such as a renewable energy project in Senegal. Innovation comes mainly from the growth equity companies that are developing new technologies that could improve resource efficiency and adaptation. We have not explored the types of technologies in the portfolio in-depth and their potential impacts, this could be pursued in the next MTE.

Finding 14: It is too early to determine whether climate investments are both feasible and profitable. A limited number of investments in the CP3 portfolio have achieved an exit and some have yielded positive returns, mainly those focused on renewable energy.

The majority of investments in the CP3 portfolio are less than three years old and many of these are still in development or undergoing construction. This means that they have not yet had the opportunity to demonstrate profitability. However, a few investments, in particular RE infrastructure projects, have started generating revenue and returns for the fund managers.

Of the investments which have been realized, most have made a profit (some marginal but others fairly substantial). A few investments have not made profits or are unlikely to do so. A key challenge to the profitability of investments is the evolving RE market. Recent global fluctuations in pricing and commoditization of energy supplies like solar power have led to declining prices and investments made in 2014 would no longer be competitive if made in today's marketplace on the same terms. All investors into ACP and CF reported that early returns had been slightly below what had been originally envisaged, but that it was perhaps too early to judge the overall returns. Actual returns should be much clearer by the time of the next MTE.

Finding 15: There is not yet strong evidence that participation in CP3 has influenced behaviours of investors[14] or attracted new actors to the market[15]. Although some CP3 investors have indicated an interest in follow-on funds in similar sectors, and CP3 has incentivized or supported some new actors in this sector, it is too early to assess whether investor behaviour has changed. However, there is some indication that experience from CP3 will influence the design and management of future climate funds.

It was expected that investors participating in CP3 funds would learn from the experience and become more comfortable investing in LCCR investments in developing countries. As a result, they would go on to scale their participation in the market. Due to the ongoing challenges of information asymmetry discussed above (Finding 9), and the limited evidence that CP3 has supported capacity and knowledge development (as noted below in Finding 16) there is insufficient evidence to support this theory.

The amount of LCCR investment is increasing and investors continue to plan to invest in clean tech in emerging markets (EMPEA 2018, PREQIN 2017). Clean energy investment alone more than doubled from 2010 to 2015 (BNEF, 2017b).

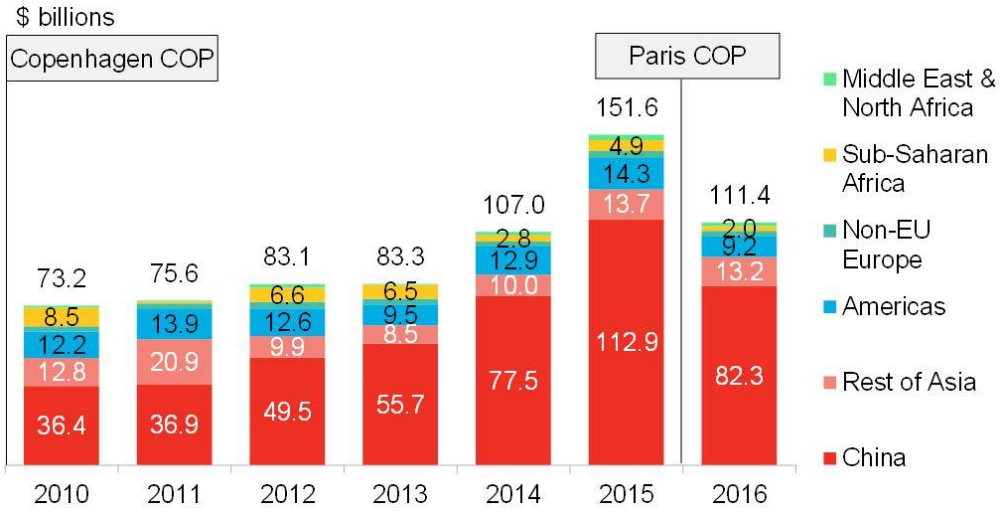


Figure 8 Clean energy asset finance in emerging markets, 2010 - 2016 (Source: BNEF, 2017b)

While most of the public donors continue to engage with the IFIs on the use of concessional funds in blended finance structures, few of these actors have gone on to make further investments in LCCR in the PE space. This decision perhaps reflects mostly the limited opportunities available at the right risk and return profile for these investors. One donor had made a parallel investment in the MGM Sustainable Energy Fund L.P. (a RE and energy efficiency focused PE fund) at around the same time as their investment into ACP. A sovereign wealth fund had gone on to invest in other FoFs both through IFC and elsewhere and other private investors in CP3 hold similar exposure through other climate funds. However, there are signs that engagement in CP3 has been useful. For example, several of the public LPs are collaborating with IFC-AMC on discussions about a follow-on to the CF which would focus on a broader set of sustainable development goals in frontier markets and would offer institutional and private investors the opportunity to gain diversified exposure to these markets.

CP3 has also influenced the way in which ADB and IFC-AMC do business. For example, CP3's investment in the CF has provided important lessons on the viability of the FoF and has informed

[14] A long-term project outcome as described in the programme ToC
[15] An expected project impact as described in the programme ToC which contributes to the overall project impact of developing countries pursuing a LCCR development pathway.

future product design. Since CF, IFC- AMC has raised another FoF – the Global Emerging Markets Fund of Funds (GEM). Additionally, depending on the success of ACP I, the fund managers are looking at the potential for further scale up in the PE space. The CP3 programme has effectively trialled an approach to high capital climate funds and FoFs. This experience could contribute to an increased number of climate focused investment vehicles (when successful track record is demonstrated), but at this stage it is too early to tell as the follow-on funds discussed will likely have a broader environmental mandate.

4.6 Has CP3 contributed to fund managers' capacity to undertake LCCR investments?

Finding 16: There is limited evidence that CP3 has contributed to fund managers' capacity to undertake LCCR investment.

CP3 was designed to build institutional capacity for LCCR development by increasing the amount of finance available in the market, but also by directly supporting less experienced fund managers through both SCAF and CF. SCAF has a dedicated support line that targets first time fund managers and shares external costs (project evaluation, travel and legal set up) on a 50/50 basis to raise funds that reach financial close. There is only limited evidence that SCAF has built capacity of first-time fund managers. Due to the delays in establishing SCAF, the facility has only supported one first time fund to reach financial close. It is interesting to note that while this fund's investment strategy indicated that 25% of the fund should be allocated to energy projects, due to insufficient investment opportunities, the current pipeline includes just one opportunity (comprising 10% of the fund to a minority stake in growth capital to a battery company). There is more evidence that SCAF has contributed positively to fund managers' capacity through a capacity building support line, but this is discussed in more detail below.

In terms of supporting first time funds, the only CF sub-funds that could be said to be "first time" are LRIF and Armstrong, or arguably TPG who were moving into the LCCR sector for the first time. In fact, evidence collected suggests CF were less willing to invest in newer funds without established systems (for example, Berkley Africa discussed in Finding 9). Evidence collected indicated that CF was part of secondary closes for many of the sub-fund investments, including those which were first time managers, so engaged after other investors supported the funds. As highlighted above, the robust governance and management processes required by the IFIs and CP3 financing pose a barrier for lower capacity and newer partners, meaning most CF funds entered the programme with sufficient capacity to meet CP3's requirements.

Finding 17: Through SCAF CP3 has supported development companies focused on LCCR in emerging markets which provides pipeline to support further climate investment. However, the impact of SCAF is limited by its size.

SCAF is a relatively unique facility in the market, with its focus on pipeline development and seed financing for PE funds and DevCos. Other mechanisms exist that provide similar support, some focus on pipeline building for parent organisations[16] or in-kind services[17]. There are only a few that provide significant overlaps, for example REPP and EEP Africa which provide project development grants and loans for projects in Africa.

SCAF capacity building focuses on general capacity building and pipeline building activities which is available for both fund managers and to Project Development Companies (DevCos). Both types of investors are using this support for core activities – for DevCos this may include wind resource assessments and staff training, for PE funds this may include pipeline building and travel. It is

[16] Including sustainable energy fund for Africa, Climate Investor One, DEG Feasibility study financing.
[17] For example, the RECP Finance Catalyst

interesting to note that over time some of the existing partners have been transitioning into more hybrid structures between fund and DevCo, making a clear separation not possible. For example, SCAF supports two DevCos, both of which are in Asia, Sindicatum and TBC. SCAF has enabled these partners to engage directly in the market, where previously they would have been supported by a PE fund. As SCAF supports DevCos directly to increase capacity in structuring and finances, this knowledge is likely to be maintained and potentially spread to other areas of their business[18].

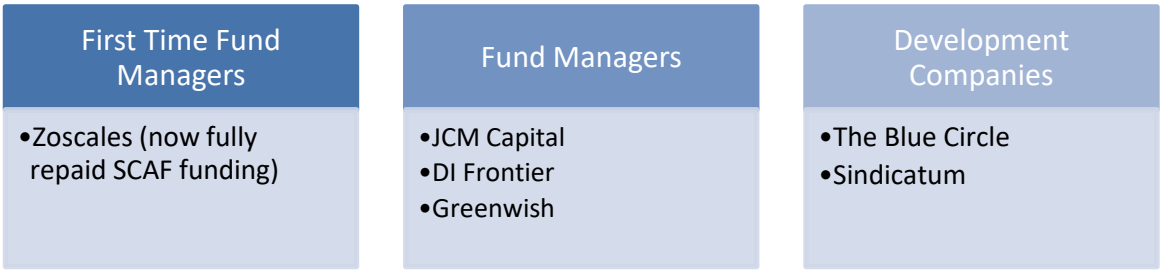


Figure 9 SCAF II Cooperating Partners

However, it is important to note that five of six of the partners of SCAF had pre-existing operations. For example, evidence collected and coded against the SCAF ICMO hypothesis indicates that TBC (a SCAF partner) was a recognised market player with well-established policies prior to SCAF investment (interestingly TBC was indirectly supported by SCAF I via Armstrong, a CF sub-fund). That being said, SCAF funds were used by TBC to accelerate project development and to expand into new markets and technologies more quickly.

The size of SCAF limits its overall influence on the market. SCAF is very small - in terms of money and number of participants - compared to the markets in Asia and Africa (where all partners are located). There is also evidence that capacity in Africa for project development is underdeveloped and SCAF support alone is not sufficient to address this barrier. SCAF has helped partners build more stable pipelines, allowing partners to look at projects that would have otherwise been disregarded or postponed as they required more financial resources at the outset. While it is too early to find evidence that SCAF has successfully influenced markets, it has diversified its partners portfolios into new countries and technologies. Despite the emergence of other mechanisms that provide similar assistance, there remains a high demand for RE and resource efficiency projects. The pool of promising candidates is large and SCAF continues to field high levels of interest from potential candidates. Evidence gathered when exploring other ICMOs has indicated that PE has certain limitations and that it cannot be used to plug all gaps in the markets. At the seed capital stage, PE investments are especially challenging and the larger CP3 funds have had limited involvement with these early stage investments. SCAF, however, is able to access these projects and develop them to the stage where they are viable for PE investment, and scaling SCAF up could potentially enable it to become a pipeline generator for future CP3 investments.

Finding 18: At this stage, with exception of the Catalyst fund, no other fund managers within CP3 are fundraising for direct follow-on funds. Some are considering fundraising climate funds with broader investment mandates, while others are moving away from PE in the LCCR investment space, but only a few have ended their investment period at this stage.

There is no evidence yet available that fund managers within CP3 are seeking to raise funds for direct follow-on LCCR investment funds. In the case of at least one fund, this is due to a belief that PE is no longer the appropriate vehicle for these markets, particularly when subject to a strict mandate. For the other funds, it remains unclear whether additional fundraising will take place or

[18] Information on SCAF performance largely comes from the separate Mid-Term Evaluation UN Environment Seed Capital Assistance Facility, Phase II. This document was being finalised during the CP3 evaluation process and the evaluators had access to a draft document and were given permission to include information from it in the evaluation report.

not but, given the relative maturity of the funds, it may be too early for the fund managers to have made a decision on this yet, with only three of the sub-funds having concluded their investment period. Interestingly, AMC are planning additional fundraising but for a more generalist FoF vehicle which will maintain an environmental focus but with a broader mandate and fewer restrictions than imposed on CF.

4.7 Are CP3 investment funds investing according to the business case mandate?

Finding 19 : CP3 investments have taken place in the countries and sectors included in the investment mandates of the business case.

HMG negotiation and engagement with CP3 components (ACP, CF and SCAF) resulted in the establishment of clear investment mandates and investment policies, appropriate governance structures and management controls that met HMG requirements and cascaded requirements to sub-funds, partners and investments within the overall CP3 programme. As discussed in Finding 1 above, this has resulted in a portfolio of investments that comply to the objectives of the CP3 business case**.** Evidence collected against the Investment Mandate ICMO found that the mandate was clearly communicated through contractual arrangements with CF and ACP and that, for the most part, the funds were able to maintain compliant portfolios. The governance systems employed by the funds were appropriate and effective in cascading the investment mandate and CP3 business case objectives to sub-funds and investments, as sub-fund managers and investees interviewed were able to comfortably discuss the mandate.

Finding 20: There is evidence of effective controls in place to guide investment decision-making. For example, investments have been fully compliant with ESG standards but there is limited evidence that HMG incentivized or encouraged further development of ESG safeguards because the main funds – CF and ACP were already subject to the strict standards from IFC and ADB. However, the funds themselves have contributed to the dissemination of ESG standards and the creation of new policies and capacities to support their implementation.

There is evidence that ESG systems are in place that meet standards required by IFC and ADB throughout the investment portfolio, including consideration of appropriate social safeguards[19]. For example, there is evidence of controls and investigations in place to respond to significant ESG events. Evidence collected suggested that application of robust governance controls is important for projects to raise additional finance. In some cases, funding from CP3 actors created the impetus to develop, staff and implement ESG and monitoring and reporting systems.

Evidence collected for the ESG ICMO suggests that many investees already had compliant or near-compliant systems in place when CP3 invested. This is particularly true at the sub-fund level, where sub-funds may have needed to take measures to strengthen their systems slightly, but none had to completely develop or redesign their ESG safeguards. For those projects which did develop ESG safeguards following CP3 investment, there is evidence to suggest that this was a deciding factor in the investee choosing the CP3-fund. For example, ColdEX selected ACP in order to access the existing systems and support within ACP and ADB to develop their ESMS and ESG systems. Evidence collected against the ESG ICMO was unable to confirm whether the adoption of ESG standards truly made it easier for projects to find private investment or leverage additional financing, though the evidence trended slightly towards supporting this hypothesis.

[19] This includes a review of systems to ensure they comply with ADB and IFC standards. While an analysis of gender benefits was included in the ToR for the overall assignment, it was agreed during MTE design and outlined in the MTE approach paper not to include a detailed analysis of gender benefits. . If this is of interest, this could be explored in a future case study focusing specifically on gender benefits.

Finding 21: The need to demonstrate success has influenced the overall risk profile of the portfolio and has generated an overall balanced portfolio, which means that some investments do not clearly contribute to the CP3 sector or country target markets.

As first-time funds developed to test how private and public actors can invest together and how public funds can catalyse private investment, ACP and CF are under pressure to demonstrate that these types of funds can successfully generate commercial returns from LCCR investments. CP3 funds were marketed largely for their commercial proposition rather than an ethical or development impact instrument. While both funds had a sustainability profile, ACP and CF also had to balance the needs and objectives of the other public and private LPs, many of which had their own climate or ethical objectives, which influenced decisions around risk and portfolio composition. This has resulted in balanced portfolios in terms of sectors, markets, investment risk and anticipated returns.

The investment strategy that guides ACP and CF's investment decisions does not provide direction about which objective should be prioritized, in terms of technology or development impact or even guiding decision-making between returns and wider climate and environmental impacts. This likely contributed to the composition of the portfolio as a range of investments could comply, but there are not necessarily incentives to select investments that are operating in more challenging environments or testing new technologies.

The factors described above may have resulted in investments that appear to be somewhat outside the scope of the CP3 objectives, such as the technology focused companies under TPG ART or Sinogreen. Environmental and development results from such investments are accrued over longer time frames and have not yet reached the required maturity to generate such results. This includes "technology transfer" projects that trial new technology in developed countries but have plans to move operations to emerging markets once the technology is proven (projects such as improved battery storage or fertiliser production from waste products). Results reporting does not also facilitate articulation of how these investments contribute to CP3 objectives. However, it is likely that these investments will contribute to CP3's objective of generating commercial returns.

Finding 22: It was important for the CP3 thesis to demonstrate that HMG and other donors could be supportive partners within the CP3 target market environments. However, there are inherent trade-offs in investing as a limited partner in a private equity fund which limits the control over investment decisions and HMG had to balance retaining sufficient control of the portfolio direction with promoting a collaborative environment for the other LPs.

As CP3 funds were marketed primarily as a commercial proposition, there was also a need for CP3 to positively demonstrate that private and public finance can sit alongside each other within the same instrument or investment vehicle. Some of the private sector investors had concerns about the presence of public investors negatively impacting commercial operations by imposing onerous mandates or restrictions. However, once HMG negotiated the initial contents of the investment policy, the level of engagement in individual decisions was the same as the other LPs within the fund. This meant that HMG had to prioritize where to exercise their influence and "choose their battles". For example, investments that were significantly outside the scope of the CP3 mandate or which conflicted with HMG priorities such as those related to natural gas investment were excluded from UK funds, but other investments which stretched the mandate requirement without breaking them were accepted. For example, under the "technology transfer" projects, investments have been made in developed markets or in companies with a less obvious links to climate impacts, such as a number of the technology innovation companies in the SinoGreen portfolio. This highlights the challenge faced by HMG: a heavily prescriptive mandate would ensure investments only in opportunities leading to HMG environmental and development impacts, but would likely turn off other investors, and potentially even the General Partners; however, allowing a more flexible mandate with a view to "picking battles" has led to a broader portfolio investments with several holdings on the fringes of the mandate.

The level of control that a LP has over individual decisions within a fund is limited. Through strong negotiation at the conception of the funds, HMG has slightly more influence than other LPs, although evidence suggests that HMG was cautious of imposing too many restraints or conditions on the funds to avoid restricting their autonomy and deterring private investors from future opportunities with public actors. HMG carefully negotiated a list of prohibited investments and sectors with IFC and ACP (The list of prohibited investments negotiated for ACP can be found in Annex 11).

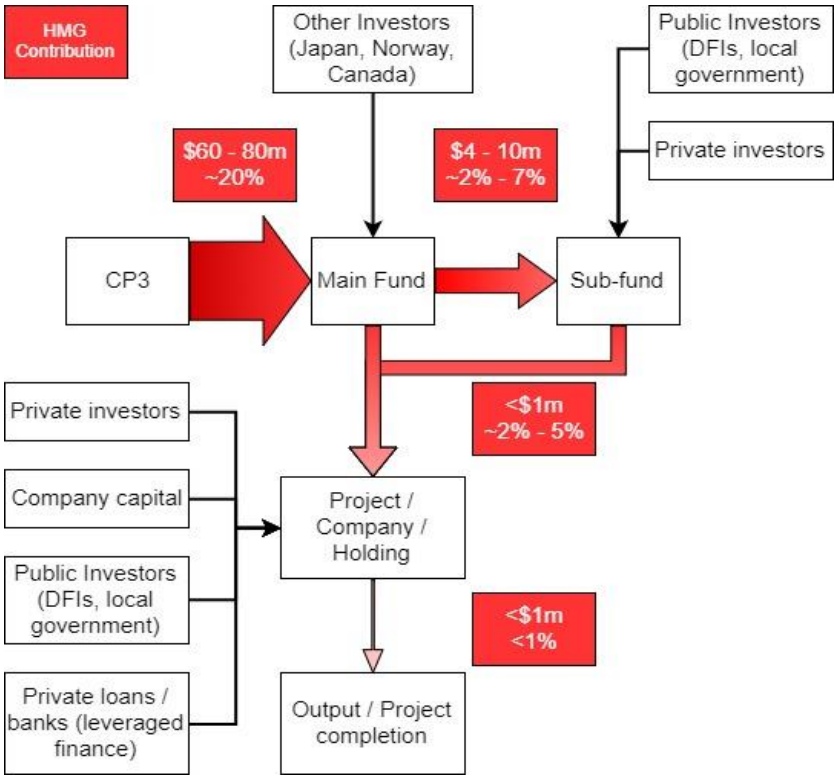


Figure 10 Potential Dilution of HMG Control

HMG does have a few unique points of control, particularly in CF where HMG funds can be independently committed, and HMG has an annual option to "turn on the tap" for investments in otherwise restricted geographies (China, for example), but ultimately has only limited control over the fund investments. The sub-funds and ACP face the same challenges once they invest equity within a company as a minority share. For example, following ACP investment in ColdEX, changes were made to the overall business strategy and the potential impact on emissions reduction had to be recalculated. Whilst there were negative impacts on the emissions reduction potential of the investment in certain areas (i.e. due to the potential impact on food waste avoided), there was an overall increase in the emissions potential of the investment; however, emissions savings were not a primary consideration in the revised business strategy.

Finding 23: A fixed mandate may not be appropriate to address the challenges facing LCCR in emerging markets due to the rapid pace of market development.

Evidence indicates that a fixed investment mandate in rapidly evolving target markets is not appropriate, as it risks quickly becoming outdated and can hinder operations of the investment vehicle. Both CF and ACP agreed that the markets had developed and that both funds were missing many opportunities outside of their narrow climate focus, but within a broader sustainability mandate. This also means the funds suffer in terms of market competitiveness. The mandate requirements of the funds limit the pool of investment opportunities, with the deployment of funds also influenced by the significant due diligence and governance requirements. Evidence from the CF investee funds suggests they are encountering similar difficulties, with at least one fund choosing not

to fundraise a follow up fund in these markets with such a mandate. It is also worth noting that AMC is looking to establish a more generalist FoF in the near future with a broader mandate than that set by CF, an indication that a strict mandate poses significant challenges.

Broad mandates should not be confused with loose standards. It is important to maintain high standards in the portfolio and hold investees accountable for climate and development impact performance.

Finding 24: A review of the alternative investment vehicles to CP3 found that CP3 was the right investment modality compared to other existing programmes.

CP3 was focused on providing private equity rather than other types of financial instruments because without equity capital, other forms of capital (such as debt, asset finance, insurance, trade finance and guarantees) cannot be accessed. PE plays an even more critical role in high risk geographies and sectors because debt financiers are much more cautious and there was a critical gap of equity funding in the market when the business case was developed in 2010.

HMG aimed to reduce information asymmetries regarding LCCR investment in developing countries, to improve investor's perception of the risks and returns, and to crowd-in private finance into the sector. The main alternative to CP3 in the private equity space at the time of inception was the EU's Global Energy Efficiency and Renewable Energy Fund (GEEREF). Both programmes have achieved significant results but there are differences in their design, specifically regarding sectoral focus, geographic focus, returns waterfall, size of the programme that impact whether they can achieve the objectives that were set out in the CP3 business case.

First, it was important for HMG to bring private investors to the table. While GEEREF crowded-in a larger percentage of private finance on the fund level, ACP and CF managed to attract larger investment overall. GEEREF closed at EUR 222m, with EUR 112m coming from the public sector and EUR 110m from the private sector (GEEREF, 2016).[20] This means that 50% of funding on the top level of GEEREF came from private investors. In comparison, CF and ACP only achieved 29% and 36% private sector funding respectively. However, CF and ACP together have a size of US$ 865m and mobilized more finance overall. One should also consider that GEEREF's design includes a funding subordinated structure to make investment for private investors more attractive. Within CP3 private and public investors are invested on the same terms and the funds were still able to attract considerable sums of private and public capital.

Second, CP3 aimed to demonstrate LCCR investment. While ACP and CF have been stronger in attracting capital than GEEREF and follow a more commercial strategy, GEEREF has been proven to be less risk averse than the CF. GEEREF has invested in more first-time fund managers than CF and has acted as an anchor investor by joining funds before first close. Some of these funds – namely, Armstrong, REAF II, and AREF - have later received investments from CF. This means that GEEREF investments in these funds and fund managers are likely more additional to the market and also more impactful for fund managers than CP3 as GEEREF came in at an earlier stage. Further, currently GEEREF is fundraising for a bigger US$750m follow on fund. However, GEEREF was more limited in its sectoral and geographical scope than CP3 as the fund was only allowed to invest in renewable energy infrastructure and energy efficiency projects in countries that are eligible for Official Development finance.[21] CP3, on the other hand, invests in a broader portfolio of LCCR infrastructure and technology.

Concluding, while GEEREF has made highly additional investments in renewable energy infrastructure funds and is raising a follow-on fund, CP3 has been targeting a broader scope of climate investments and has provided a significant learning opportunity to test a true market mechanism that is not subsidized by concessional finance.

---

[20] http://geeref.com/assets/documents/2016%20GEEREF%20Impact%20Report_public_final_.pdf
[21] http://geeref.com/about/investment-strategy.html

Box 3. The extent to which the intervention has been managed and delivered against the Paris Declaration principles[22] ?

Analysis of CP3's alignment with the Paris Declaration principles was originally included in the terms of reference for the assignment, but was not included in the agreed upon questions included in the approach paper. Thus, such evidence was not sought out and the M&E agents did not come across evidence that CP3 was following these principles explicitly. However, given the market driven nature of the CP3 programme, there is evidence that CP3 delivers in line with the Declaration's five principles in the following ways:

Ownership: The CP3 programme and activities works within the policy frameworks of developing countries and seeks to enhance these by catalysing the markets in countries and supporting local institutions within these countries. CP3 works predominantly through private sector actors in developing countries to drive low carbon growth and development.

Alignment: As above, CP3 investments are made within and to local systems and institutions supporting low carbon development objectives within these countries.

Harmonisation: Through working with IFC, ADB and SCAF, CP3 works with a range of donors and institutions who are active in this space. This contributes to ensuring that CP3 activities are not duplicative of ongoing efforts. The comparative analysis identified that while there are other institutions offering some similar services, very few mechanisms provide private equity alongside private sector to support low carbon development and encourage private sector entry in this market.

Results and mutual accountability: The CP3 project has been specifically designed to achieve development and climate, and environmental results and to reach the ultimate goal of transformative market change. The programme has been supported by a dedicated M&E Agent to support accountability and results reporting.

[22] This analysis was added to bring the report into full alignment with the original objectives in the ToR and with the requirements of the DFID Evaluation Quality Assurance and Learning Services (EQuALS) Quality Assurance Evaluation Report template, which is often used by DFID and other UK Government departments spending Overseas Development Assistance to assess the quality of evaluations. This analysis was included in the ToR, but was not specifically including within an evaluation question. For more information on the Paris Declaration and its principles, see: the OECD website: http://www.oecd.org/dac/effectiveness/parisdeclarationandaccraagendaforaction.htm [Accessed 26 October 2018]

5 RECOMMENDATIONS, CONCLUSIONS AND LESSONS LEARNED

5.1 Conclusions

Private equity was shown to be an effective vehicle for delivering public climate finance and leveraging additional private finance, but its effectiveness is not equal in all country contexts and there is a tradeoff between the ability to leverage finance and additionality. The evaluation showed there is a clear need for early-stage PE for climate projects as well as demonstrated potential for it to mobilize additional private and public investment. CP3 delivered on its expectations for financial leverage, with total co-investment in the portfolio reaching US$9,164m. The program and HMG were clearly impactful driving a change in mindset towards PE as a tool for climate and development impact investing, particularly within IFC and ADB and for the other donors that participated in these funds.

CP3 investments were more effective catalysing investment in middle income countries where additional capital often followed, particularly for investments in renewable energy. In the case of lower-income countries, we saw little investment, if any, following the CP3 investments. This was particularly the case for riskier types of finance – like early stage equity. This showed that the level of economic development in a country and its investment environment are the primary factors that enabled private investment. Without a certain level of development in areas that include policy, legal and regulatory frameworks, investor protections, corporate governance, and capital markets, there is little chance of mobilizing private finance or achieving transformational change. Activities, such as technical assistance, that work to improve these factors are needed to attract private investors to lower income countries.

There is also a tradeoff between additionality and the ability to leverage finance. Based on evidence from five case studies and statistical analysis from the portfolio, we observe that achieving both high additionality and high financial leverage is often mutually exclusive. High additionality environments bear more risk, require proportionally larger levels of investment and are less able to attract private investors. In lower middle-income countries, this was only US$1.88. Given the objective of CP3 is to leverage significant amounts of private finance, a portfolio that is fully allocated to lower-income countries is not possible. Investments with the highest amount of co-investment were those in highly developed market environments and in sectors already receiving a significant amount of private investment. In these cases, public investment competes with private investment, which is not only an inefficient use of public resources but could also distort the market in a counterproductive manner.

To achieve optimal outputs, it should be recognized that financial leverage and additionality can be in conflict and design programmes tailored to the specific objectives. Market and industry data should be used to inform programme design, helping refine investment aims depending on the trends observed and the barriers present. For example, a programme that seeks to drive investment in rural electrification may recognize that commercial viability is limited due to the high costs of providing services to remote locations. In such a case, achieving high financial leverage from private investors may not be an appropriate objective.

Overall CP3 achieved both additionality (in the deviation from BAU trends in its investment portfolio) and leverage in a manner that corresponds to the aims of the business case.

Climate-relevant investments within CP3 encompass a very wide range of sectors and investment strategies. The outcomes that have been achieved highlight the value of broad mandates to allow for innovation and for the identification of optimal mitigation and adaptation strategies in a given financial, regional and sectoral context. However, a broad mandate can also be a detriment when more specific objectives are desired. This was most evident in the lack of adaptation investments in the portfolio.

The CP3 portfolio has 77 individual investments in companies whose sectors range from software to chemicals to infrastructure. The makeup of the portfolio shows how the fund managers interpreted

the investment mandate, and where they saw opportunities to achieve both climate impacts and commercial returns.

The mandate left significant room for interpreting what is a climate investment by the fund managers. In a limited number of cases, the mandate was interpreted too broadly and there are investments in the portfolio where the climate change link is tenuous. This was an issue with five out of 77 investments in the portfolio and limited to FoF investee funds where there was less direct control over investments. In the vast majority of cases, the investments were as expected albeit with higher concentrations in certain sectors than originally anticipated. This is most apparent in the larger-than-expected share of renewable energy investments in the portfolio. At the same time, there were lower-than-expected shares of investments in adaptation and energy efficiency. Comparing the breakdown of investments at the sectoral level showed CP3 fund managers invested in-line with global climate investment trends which can be explained by the commercial nature of the program and the broad investment mandate.

To drive greater shares of investment in smaller sectors with fewer commercial opportunities, there is a need for specialist programs that can support the greater costs and risks involved in identifying investment opportunities. Adaptation investments are a prime example. The Business Case envisaged 15-30% adaptation and forestry investments in the portfolio. This was far from the actual performance of the programme which has around 2% adaptation-relevant investments. Adaptation is highly context specific and requires specialist knowledge of climate risks and how these risks can be addressed or mitigated. This knowledge is likely not available in a generalist climate fund.

There is a need for complementary investment vehicles where CP3 shows gaps. The CP3 programme was not meant to, and cannot, address all investment gaps in the market. However, there were areas in the Business Case where CP3 was not appropriately structured to deliver the results expected, in particular in the support of first-time fund managers and in supporting seed or development stage projects which are essential to drive transformational change. The vast majority of CP3 investments were channeled through established fund managers with the exception of ACP, LRIF and Armstrong. Most investments made by funds went to companies that were established and generating revenues. This is entirely within the mandate. However, very early stage finance remains a major gap in the market, slowing growth and also limiting the investment opportunities of the CP3 funds themselves who often cite a lack of “pipeline” as a barrier.

SCAF serves as a complementary initiative to the CF and ACP, playing an important role in scaling up a pipeline of projects and companies. However, its size limits its impact in the market and based on conversations with fund managers and our work with initiatives like the Global Innovation Lab for Climate Finance, we continue to see a greater need for seed finance and particularly seed finance available to new entrants.

HMG was a strong contributor to the establishment of the Catalyst Fund and ACP where CP3 invested, helping shape the strategies and decisions of IFC and ADB and of the public investors in the funds. In turn, the funds’ investments have contributed to addressing key market barriers in line with the theory of change although evidence of longer term impact is still limited.

HMG was instrumental in establishing the CF and ACP and catalysed the involvement of IFC and ADB as well as other public investors in climate-focused private equity. This was widely recognized by stakeholders interviewed. At the time of the programme’s inception and even today, CP3 is seen as a very innovative programme. CP3 has contributed to address this gap in the market but it is still too early to determine whether it has influenced the behaviour of private investors through demonstration effects.

There is transformational change occurring in the markets in which CP3 operates. However, it is still early in the implementation period of the programme, and there is less evidence of long-term outcomes as envisioned by the theory of change. However, experience with CP3 may generate useful lessons for those involved.

The market for LCCR investment in developing countries has changed rapidly since the inception of the programme but understanding CP3's contribution to this change is challenging. This is partly due to the maturity of the programme. The majority of investments in the portfolio are less than three years old and have yet to demonstrate track record or generate demonstration effect that may directly influence investor behaviour and market developments as envisioned in the business case. There is evidence emerging that the experience of engagement with the CP3 supported funds has generated useful learning and increased confidence of institutions involved, which may influence future investment and project development activities in these markets.

5.2 Key recommendations for HMG

The following section provides recommendations to increase the impact of CP3 as well as recommendations for the future design of similar programmes. The ability to change the design and operations of CP3 is limited at this point in time. In order to provide certainty to investors, to limit financial liabilities and to ensure that investments could happen at commercial terms, HMG and other investors in the private funds are "limited partners" and as such have limited sway over the operations of the funds. Short-term recommendations focus on opportunities for ancillary activities that HMG could undertake to improve the impacts of CP3 on the wider market and are not focused on investment activities. Long-term recommendations focus on future options for programme design for programmes similar in aims to CP3.

5.2.1 How HMG could leverage the learnings from CP3 to produce wider impacts in the market and support transformational change

Recommendation 1: Communicate and share lessons widely from CP3 and other climate programmes to increase demonstration effects and impacts. A key barrier identified in the CP3 business case is the lack of information on investing in the CP3 target markets. There is a wealth of information emerging from CP3 and the evaluation, but very little is being shared with the wider investor community. The highly confidential nature of PE is a barrier to wider dissemination. HMG could address this by supporting the publication of more of the findings from the CP3 programme and encouraging fund managers, in particular the CF and ACP to share lessons and experiences. In future programmes, provisions could be made so that more data and information could be shared publicly. In particular, information on the specific investments in the portfolios, the investment cases and investment amounts. This could greatly support replication and demonstration effects.

Recommendation 2: Consider opportunities to replicate or scale-up SCAF to increase its impact. As noted above, SCAF's focus on early stage financing and technical assistance fills an important niche in the LCCR sector that traditional PE is not able to fulfil. SCAF Phase II has four years remaining; HMG could play a leading role in the establishment of SCAF Phase III, potential committing additional finance to allow SCAF itself to scale up and take on more cooperating partners. The pipeline generation from the SCAF partners, particularly the DevCos, is a vital part of the LCCR ecosystem and scaling up SCAF could improve this pipeline, providing more opportunities for traditional PE and accelerating the market.

Recommendation 3: Continue to monitor and evaluate CP3 to support lesson learning. CP3 is a long-term programme that uses ODA funding in an innovative way to test a hypothesis on how public investors can help mobilise private investment in LCCR sectors. There continues to be a need to monitor and evaluate CP3 to collect evidence and lessons that are useful for both future HMG and also for other bilateral, multilateral and philanthropic investors providing climate finance. The evaluation should continue until 2026 to understand programme level impact and transformational change.

Recommendation 4: HMG could consider playing a role in developing a more consistent framework for reporting climate finance. The UK, as a major development finance provider and as a donor with a strong reputation for due diligence and reporting high quality results has the opportunity to improve the global standards for reporting. While the M&E providers have addressed

concepts such as additionality, innovation, technology transfer, they are not used by any fund managers and important concepts to consider for reporting and reducing double counting. There need to be metrics that hold investors accountable to what they promise and accounting principles for climate impact. The UK could leverage on the lessons learned from the CP3 programme and its wider ICF programming to support development of a global framework for reporting.

5.2.2 How HMG could work to increase the ambition of green investment communities and programmes:

Recommendation 5: HMG can leverage its leadership role by bringing together CP3 stakeholders to share lessons, discover opportunities and create a green investment community. HMG is a trusted intermediary linking a wide range of institutions that shape a major part of the global clean energy and climate economy. Creating a forum that can help connect some of these stakeholders could help catalyse new initiatives and support internal lesson learning to improve performance of the programme directly, strengthen the investment market, and potentially further address the barrier of information asymmetry. There could also be an opportunity for this community to engage on wider HMG and ICF priorities, which could help further mobilize the market and guide climate action. As it stands, CP3 participates in a large climate finance ecosystem with a wide range of interested parties but there is currently limited interaction between them.

In addition, the M&E agents discussed a knowledge sharing and networking platform with SCAF stakeholders that could be used by prospective SCAF applicants or interested parties who do not satisfy SCAF's qualifying criteria. HMG could play a key role in helping to establish such a platform which could encourage knowledge sharing and potentially provide a forum for potential investors to engage with and invest in LCCR fund managers and DevCos. Such a forum would provide a number of opportunities and benefits, including: building a dedicated network of early stage, seed financing actors in the LCCR development space; increase the dissemination of lessons learned by engaging with challenging markets, streamlining future efforts to do so; and support future investment efforts by CP3 by potentially providing or supporting a more robust LCCR pipeline through support to DevCos such as Sindicatum and The Blue Circle.

Further, knowledge sharing could include CP3 investors, co-investors, and fund managers. Many of the co-investors are strategically aligned with HMG's environmental goals and their knowledge and financial capacity could be leveraged in future activities.

Recommendation 6: Engage with fund managers and other public and private investors to show leadership and vision for how climate investments could develop in the future in a way that increases ambition. Leadership and detailed guidance on the types of investments HMG is seeking and the impacts it hopes to achieve can help guide the market to develop pipelines of projects. Clear investment criteria and transparent investment processes would further catalyse the market. This is especially relevant in the context of new PE programmes and also for a potential Catalyst Fund II which the IFC is seeking to fundraise and launch.

5.2.3 How HMG could improve the design and governance of future programmes:

Recommendation 7: Timelines, Milestones, and Objectives for a market-based mechanism should consider the complexity and long-term nature of market development. Setting up new funds, and multi-stakeholder initiatives takes time. CP3 took more than four years from business case to first investment. Supporting first time fund managers requires further time and support. SCAF was better placed to support first time fund managers than the CF for example. A more risk-taking, and patient programme that targets the gap between SCAF and CF could more effectively anchor first time fund managers. Finally, it should be recognized that technical assistance and private equity funds operate on different timescales. Private equity fund managers need to invest and realize returns within a

very limited period. Thus, there is little time for private equity to provide TA if returns are long-term and uncertain. This is where different types of programmes may be more appropriate.

Recommendation 8: The programme mandate needs to set higher standards for investments. While the investment mandate was mostly right, there were some investments which did not meet the CP3 intent. Some of these investments might have a positive impact in ODA eligible countries in the medium- through long-term through technology transfer, but there is a need to reduce the risks of making investments outside programme objectives.

Recommendation 9: A future programme more purposefully needs to target adaptation investments. Mandating an adaptation minimum in the investment portfolio will not be effective in ensuring increased investment in adaptation as long as there is a lack of adaptation capacity in the private sector. However, there are some programme design options that could support the increase in adaptation investment.

a) **Define climate vulnerabilities to address and invest in funds that target the vulnerability**. There is a lack of clear adaptation definitions and activities. Adaptation is very context specific and needs to be assessed on a case by case basis. To count an investment as an adaptation investment, investments need to meet the three IDFC Common Principles on adaptation tracking. First, investments need to set out the context of risks, vulnerability, and impacts related to climate variability and climate change. Second, the investor needs to state the intent to address the identified risk, vulnerabilities, and impacts in project documentation. Third, the investor needs to demonstrate a direct link between the identified risks, vulnerabilities, and impacts, and the financed activities. There is a need to translate public sector requirements into opportunities for the private sector. HMG could define a specific adaptation mission; for example, reducing vulnerability to drought in Africa, Asia, and Latin America. This would enable fund managers of fund of funds such as the Catalyst Fund help to target private equity funds that invest in water efficiency technologies and services.
b) **Provide seed-financing to adaptation funds and initiative**. There are no adaptation fund managers in the market right now. There is an opportunity provide a programme like SCAF with the capacity to seed adaptation fund managers.
c) **Support mainstreaming of adaptation by building technical expertise in funds via technical assistance.** It is important that newly build infrastructure in emerging markets is climate resilient. Further, there are opportunities to increase the climate resilience of companies that are in emerging markets. Future programmes could provide technical assistance to mainstream adaptation and resilience activities for new infrastructure investments or could provide adaptation recommendations or trainings to investee companies.

Recommendation 10: Management and governance of future programmes could be streamlined by:

a) **Standardizing impact reporting**. While funds comply with ICF reporting, the development and environment KPI results reported by CF and ACP are not comparable due to differences in reporting methodologies used. A solution to this could be a standardized questionnaire or a methodology that HMG requires the funds to follow.
b) **Consistent centralised reporting.** As noted above, there are inconsistencies in the current reporting system within CP3 which are further compounded by the lack of centralisation, which makes assurance of reporting challenging. Particularly within CF where reporting staff have their own sub-fund portfolios which may be split across HMG and non-HMG investments, assurance of data is inefficient and requires engagement with multiple stakeholders. Having a consistent reporting format with a centralised depository could minimise this challenge.

Recommendation 11: With ESG reaching mainstream status, HMG should seek opportunities to drive climate sensitive investment standards further. The M&E agents found that the majority of sub-funds and companies within the CP3 ecosystem were either already implementing ESG standards and reporting prior to CP3 investment, or were eager to engage with CP3 to get access to the knowledge and capacity to do so, and that few needed to be incentivised into adopting ESG standards. Current sector thinking is split between praising the era of ESG and the benefits it has for sustainable investment, and criticism of ESG, finding that it doesn't move far enough from BAU and is to heavily focused on process rather than impact. With the European Commission's Action Plan on pushing forward sustainable investment released earlier this year and the increasingly widespread acceptance of ESG as an investment standard, the foundation has been well laid for the next stage of sustainable climate investment standards to be developed. HMG could play a leading role in this development, pushing the companies and fund managers within the CP3 ecosystem to adopt higher standards than just ESG. By taking account of the recorded gaps left by existing ESG standards, the EC's Action Plan and innovative climate finance research going on around the world, HMG could use CP3 to develop leading examples of climate focused investment standards.

Recommendation 12: HMG should consider options to scale up SCAF for Phase III, or implement alternative TA facilities. As mentioned in Recommendation 5, SCAF has a unique opportunity to generate the type of pipeline necessary for PE investments. Early stage and seed capital investments are not best met by PE, especially without complimenting the investment with TA or capacity building. SCAF has had reasonable success thus far in addressing this gap, providing direct TA to fund managers and DevCos where required to support their financing and development of early stage projects. These early stage projects can be developed into bankable PE investments, which can create a pipeline for LCCR funds. This supports the wider CP3 ecosystem. However, SCAF is only able to support a limited number of partners with their current funding and capacity. With SCAF Phase III likely on the horizon, HMG could take the opportunity to commit a greater investment of funds to SCAF to allow them to take on more implementing partners, perhaps widening their criteria and focusing further on DevCos rather than fund managers.

Alternatively, the M&E agents found that the human capital required to manage the type of PE funds sought by CP3 was much higher than expected by fund managers, with significant resources being committed to working with and building the capacity of local financial institutions, commercial entities and government bodies. A SCAF alternative TA facility, focused specifically on providing the type of targeted capacity building support needed for these investments, could be established under CP3 with a mandate not to invest in its own projects or partners but to support the investments of the existing CP3 funds. Such a TA facility could help local banks work with and understand project financing, support the brokering of additional investments, collaborate with governments on improving market processes, or provide direct capacity building support to project developers – all tasks which CP3 fund managers have been required to do.

5.2.4 Recommendations for design of the next phase of the CP3 monitoring & evaluation

The theory-based evaluation approach applied throughout the first phase of the M&E assignment (2014-2018) remains appropriate for continued M&E of the CP3 programme. The overall assignment and particularly the midterm evaluation relied on a mixed-methods approach to generate evidence and a range of synthesis methods (including both descriptive and explanatory) to generate findings. This evaluation design has been appropriate as it integrates two or more evaluation methods which is useful for a complex programme such as CP3. The next phase of the evaluation should continue apply a theory-based approach to generate evidence to answer the evaluation questions. Below is a list of proposed activities and their justification followed by an outline of the indicative deliverables.

Monitoring activities

Regular monitoring: The regular monitoring activities conducted by the M&E agent should continue as this supports regular ICF and HMG results reporting. It is also useful for ensuring the M&E agents have regular contact with the investment funds and are up-to-date on the performance of the portfolio and investment activities.

Revision to logframe: Since 2014, multiple changes to the logframe have been made to ensure that the logframe accurately captures programme performance. Based on the evidence collected in the MTE, additional changes could be made to ensure the logframe continues to capture the most relevant metrics and maintains simplicity.

Support to aligning KPI reporting through collecting more project-level data: This will improve the quality of reporting of impact indicators. While CF and ACP follow the same reporting methodology, they use different assumptions and inputs which makes comparing results and understanding performance of the funds more challenging. For example, ACP disaggregates jobs by gender, full-time employment and permanent positions and their GHG emissions reductions by new and existing efficiencies, but CF does not. Alignment on the way these figures are collected and presented could greatly aid future comparisons and evaluation activities.

Evaluation and learning activities

Two substantive evaluation activities: There remains a need for more substantive mid-term evaluations in 2022/2026 to synthesise evidence to understand the programme's performance and progress.

Review of the ToC: Evidence was collected as part of the MTE that confirmed the theory of change (ToC) remains valid. However, it would beneficial to review the ToC in the next phase of the evaluation to see if there are opportunities for simplification and also to better articulate the longer-term causal pathways that would be explored in the evaluation from 2019-2026.

Case studies (investment and thematic): Periodic case studies provide very useful insights into the performance of either individual investments or aspects of the portfolio that are not captured by financial and KPI reporting. They should be continued to generate useful insights to CP3's contribution to outcomes observed and enable verification of results reported.

Generation of publicly available information to support learning: The MTE identified that information asymmetries still exist and impact perception of risks of investment in these markets. The M&E agent could support in the generation of publicly-available information. Some potential outputs that would seek to address this asymmetry are included in the table below.

Suggested deliverables/ outputs for second phase of the CP3 evaluation (2019-2022) based on above recommendations:

Table 4 Overview of deliverables 2019-2022

Deliverables	Description
Update of the milestones model & simplified logframe	Update milestones model based on findings in MTE and financial leverage case study to ensure milestones reflect updated data on additionality, attribution and financial leverage. Simplify logframe. DFID/BEIS together with the M&E agents should make a decision on attribution and additionality methodologies.
Review and potential revision of the ToC	Review the ToC with relevant stakeholders and if necessary, revise to articulate impact pathways based on evidence collected to-date.

Create standardized data collection questionnaire	Data reported by ACP and CF is not comparable. Creating standardized data collection could improve understanding on the effectiveness of different investment mechanisms.
Biannual reports (Feb/March) (4)	Update quarterly financial data and report against ICF Key Performance Indicators (KPIs). Simplify biannual reporting by limiting content to KPIs, and fund progress updates.
Annual review (Jul/Aug) (4)	The annual report should continue to present a more comprehensive stock-take, with reporting against all log frame indicators, ICF KPIs, as well as analysis of evidence to support the theory of change, stakeholder feedback on the programme and key recommendations. It should continue to include a descriptive analysis of the portfolio.
Case studies (3-5)	Heavy emphasis on case studies, both investment-specific and thematic case studies. The sampling strategy to guide the selection of case studies should be revised considering recent trends and investments. However, some potential focus areas could include: - Development benefits and social benefits, contributions to SDGs. - Contributions to adaptation and climate resiliency - Exploration of potential decarbonisation and environmental impact pathways beyond GHG emission reductions. - Revisiting old case studies to assess long-term impact and effectiveness of investments (e.g. Anuvia investment to review if technology transfer has happened) - Impact of ESG requirements on investment decisions and on implementation quality - Appropriateness of PE in LDCs and LCCR markets - Exploring the impact of different investment structures and equity shares on investment performance - Testing the market transformation rubric considering factors such as first mover investments or capacity building efforts. Case studies should continue to complement logframe monitoring, provide evidence of assurance activities, help inform on the theory of change and underlying assumptions and verify impacts.
2nd midterm evaluation in 2022	Similar to the first midterm evaluation, this report should summarize the data collected during the M&E contract and should conduct additional data collection where needed to respond to the evaluation questions. This evaluation should focus on understanding performance and progress towards impact of the CP3 investment and seek to generate learning to inform the design of future climate investments, in particular for transformational change.
Dissemination of findings	To support generation of learning and more widespread sharing of knowledge of investment in these markets through producing publicly available information on CP3. Specific deliverables could include: - Webinars - Events

	- Slide decks - Briefing notes

6 BIBLIOGRAPHY

Analisis del Mercado de Energias Renovables, America Latina (Market Analysis of Renewable Energy in Latin America), IRENA. 2016.

BNEF Climatescope (2017a). Climate Scope 2017. The Clean energy Country Competitiveness Index. At: http://global-climatescope.org/en/download/insights/climatescope-2017-clean-energy-investment.pdf

BNEF (2017b). Clean Energy Investment in Emerging Markets. At: https://about.bnef.com/blog/clean-energy-investment-emerging-markets/

Bosforo pamphlet, AES/CMI. El Salvador, 2017.

Brest Paul, Born Kelly (2013). Unpacking the Impact in Impact Investing. At: https://ssir.org/articles/entry/unpacking_the_impact_in_impact_investing

Brookings (2017). Cleantech Venture Capital: Continued declines and narrow geography limit prospects. At: https://www.brookings.edu/research/cleantech-venture-capital-continued-declines-and-narrow-geography-limit-prospects/

Case study: Assessing the Additionality of CP3 Investments. Climate Policy Initiative and LTS International. UK, 2016.

CPI [Climate Policy Initative] (2017). Global Landscape of Climate Finance 2017. At: https://climatepolicyinitiative.org/wp-content/uploads/2017/10/2017-Global-Landscape-of-Climate-Finance.pdf

Danielson, David (2016). Re-Investing the American Energy Innovation Ecosystem Today for 2050 Climate Impact in the Shadow of the Cleantech VC Bust. At: https://energy.stanford.edu/sites/default/files/stanford_energy_seminar_-_danielson_-_12.05.16.pdf

El ABC del cambio climático en El Salvador (The ABCs of Climate Change in El Salvador). United Nations Development Programme. El Salvador, 2007.

El Salvador's Congress approves expansion of tax incentives to promote renewable energy use in electricity generation, Global Tax Alert. Americas Tax Center/Ernst and Young, El Salvador. 28 October 2015.

Electricity Sector of El Salvador, National Energy Council (CNE). El Salvador, 2015.

EMPEA (2010). Emerging Markets Private Equity Survey 2010. At: https://www.empea.org/app/uploads/2017/03/EMPEA.LP_.Survey.2010.US_.web_.pdf

EMPEA (2017). Industry Statistics Year-end 2017: Emerging Markets Private Capital Fundraising and Investment. At: https://www.empea.org/app/uploads/2018/02/EMPEA-Industry-Statistics-YE-2017-Official-Public.pdf

EMPEA (2018). Emerging Markets Private Equity Survey 2018. At: https://www.empea.org/app/uploads/2018/05/2018-lp-survey-web.pdf

Energy and Natural Gas Hub for Central America, Investors Brochure. National Export and Investment Promotion Agency (PROESA), El Salvador, 2018.

Gaddy Benjamin, Sivaram V., O'Sullivan F. (2016). Venture Capital and Cleantech: The Wrong Model for Clean Energy Innovation. At: http://energy.mit.edu/wp-content/uploads/2016/07/MITEI-WP-2016-06.pdf

GEEREF (2016). Impact Report. At: http://geeref.com/assets/documents/2016%20GEEREF%20Impact%20Report_public_final_.pdf

GEEREF (2018). Investment Strategy. At: http://geeref.com/about/investment-strategy.html

Global Climatescope 2017 – Emerging Markets Clean Energy Investment http://global-climatescope.org/en/download/insights/climatescope-2017-clean-energy-investment.pdf

Global Landscape of Renewable Energy 2018 http://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Jan/IRENA_Global_landscape_RE_finance_2018.pdf

How solar energy can (finally) create value McKinsey & Company (2016) https://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/how-solar-energy-can-finally-create-value?cid=sustainability-eml-alt-mip-mck-oth-1610

IDB and IIC (2017). Comparative Study of Equity Investing in Development Finance Institutions (DFIs). At: https://publications.iadb.org/bitstream/handle/11319/8207/Comparative-Study-of-Equity-Investing-in-Development-Finance-Institutions.pdf?sequence=8

IDB, JICA to promote renewable energy and energy efficiency in Central America and the Caribbean - https://www.iadb.org/en/news/news-releases/2014-03-29/central-americacaribbean-renewable-energy%2C10783.html

Innovation Priorities to Transform the Energy System: An Overview for Policy Makers. International Renewable Energy Agency (IRENA). Abu Dhabi, 2018.

Investopedia (2008). http://www.investopedia.com/terms/m/matureindustry.asp

Makhene, Magogodi (2009). Alternative Growth: The Impact of Emerging Market Private Equity on Economic Development. http://www.neumann.edu/about/publications/NeumannBusinessReview/journal/review09/makhene.pdf

Mulcahy Diane, Weeks Bill, Bradely Harold (2012). Lessons from Twenty Year of the Kauffman Foundation's Investmetns in Venture Capital Funds and the Triumph of Hope over Experience. AT: Kauffman Foundation

Nassiry D. Wheeler D. (2011). A Green Venture Fund to Finance Clean Technology for Developing Countries. Working Paper 245. At: Center for Global Development

National Energy Policy. National Energy Council (CNE). El Salvador, 2009.

Panorama actual de las energías renovables en El Salvador 2017-2018, National Energy Council (CNE). Draft 2018.

Plan Indicativo de la Expansion de la Generacion Electrica En El Salvador (2018-2035). National Energy Council. 2018.

Preqin (2015). Cleantech Private Equity Fund Mangers – July 2015. At: https://www.preqin.com/blog/0/11821/cleantech-fund-managers

Prequin (2017). Special Report: Private Equity in Emerging Markets. At: http://docs.preqin.com/reports/Preqin-Special-Report-Private-Equity-in-Emerging-Markets-July-2017.pdf

Prequin (2018). Special Report: Private Equity in Emerging Markets. At: http://docs.preqin.com/reports/Preqin-Special-Report-Private-Equity-in-Emerging-Markets-May-2018.pdf

Primer Informe Bienal de Actualizacion (First Biennial Update Report), Global Environment Facility, United Nations Development Programme, Ministry of Environment. El Salvador, 2018.

REN21 (2010). Global Trends in Sustainable Energy Investment 2010. At: http://www.globalbioenergy.org/uploads/media/1007_UNEP_-_Global_trends_in_sustainable_energy_investment_2010.pdf

REN21 (2018). Renewables 2018 Global Status Report. At: http://www.ren21.net/wp-content/uploads/2018/06/17-8652_GSR2018_FullReport_web_final_.pdf

Renewable Energy Tenders and Community [Em]Power[ment] http://www.ren21.net/wp-content/uploads/2017/09/LAC-Report.pdf

Renewables 2016 Global Status Report http://www.ren21.net/gsr-2016/chapter04.php#figure-35

Solar costs are hitting jaw-dropping lows in every region of the world (2017) https://www.greentechmedia.com/articles/read/solar-costs-are-hitting-jaw-dropping-lows-in-every-region-of-the-world#gs.oKpM_GI

Study on the Development of the Renewable Energy Market in Latin America and the Caribbean (2013) – World Watch http://www.worldwatch.org/system/files/Study-on-the-Development-of-the-Renewable-Energy-Market-in-Latin-America-and-the-Caribbean_IDB%202014.pdf

Sworder Chris, Salge L., Van Soest H. (2017). Global Cleantech Innovation Index 2017. At: http://info.cleantech.com/rs/151-JSY-946/images/Global_Cleatech_Innovation_Index_2017_FINAL.pdf

The First Decade: 2004 – 2014 REN21 Renewable Energy Policy Network for the 21st Century http://www.ren21.net/Portals/0/documents/activities/Topical%20Reports/REN21_10yr.pdf

Vision 2034, El Plan Quinquenal de Desarrollo 2014-2019 (Vision 2034, a Five Year Plan of Development for 2014-2019). Government of El Salvador, 2013.

Annex

ANNEX 1 - THEORY OF CHANGE

As a starting point in the evaluation, and in line with best practice approaches to complex evaluations, a theory of change (ToC) was developed to help articulate the programme theory and identify mechanisms that contribute to the change envisioned by the programme. As understanding causation is central to the design of the evaluation approach, the team worked to define linkages between inputs and outputs, along with underlying assumptions in the ToC as shown in Figure 11. The ToC will also be used to support our realist synthesis approach, which is discussed further in section 0 Synthesis methods below.

As inputs, CP3 allocated US$200m to two PE funds and technical assistance programmes run by independent fund managers. The two funds raised a total of US$865m combined from other donors, multilateral sources, and private entities alongside the UK. The UK Government and other investors in these funds are known as limited partners, or LPs. The fund manager is known as a general partner, or GP.

The GP's objective is to manage the capital of the funds and achieve a return on investment. They operate within predefined constraints but otherwise make investment decisions independently. Constraints include inclusionary and exclusionary investment criteria, Environmental, Social and Governance (ESG) criteria and governance standards. Inclusionary criteria dictate that the funds must invest in climate relevant sectors such as renewable energy, energy efficiency, clean transport and others. Exclusionary criteria dictate where the funds may not invest such as fossil fuels and tobacco. (See Annex 0 Annex 5 - ACP Investment Criteria for the detailed investment criteria of ACP)

By design, the UK and other LPs do not have a say on the actual investments made by the funds. This is to allow managers to operate within a commercial environment and in-line with standard practice in the PE industry. It is important that CP3 operates on a commercial basis as its goal is to demonstrate to commercial investors that participating in climate relevant sectors is profitable.

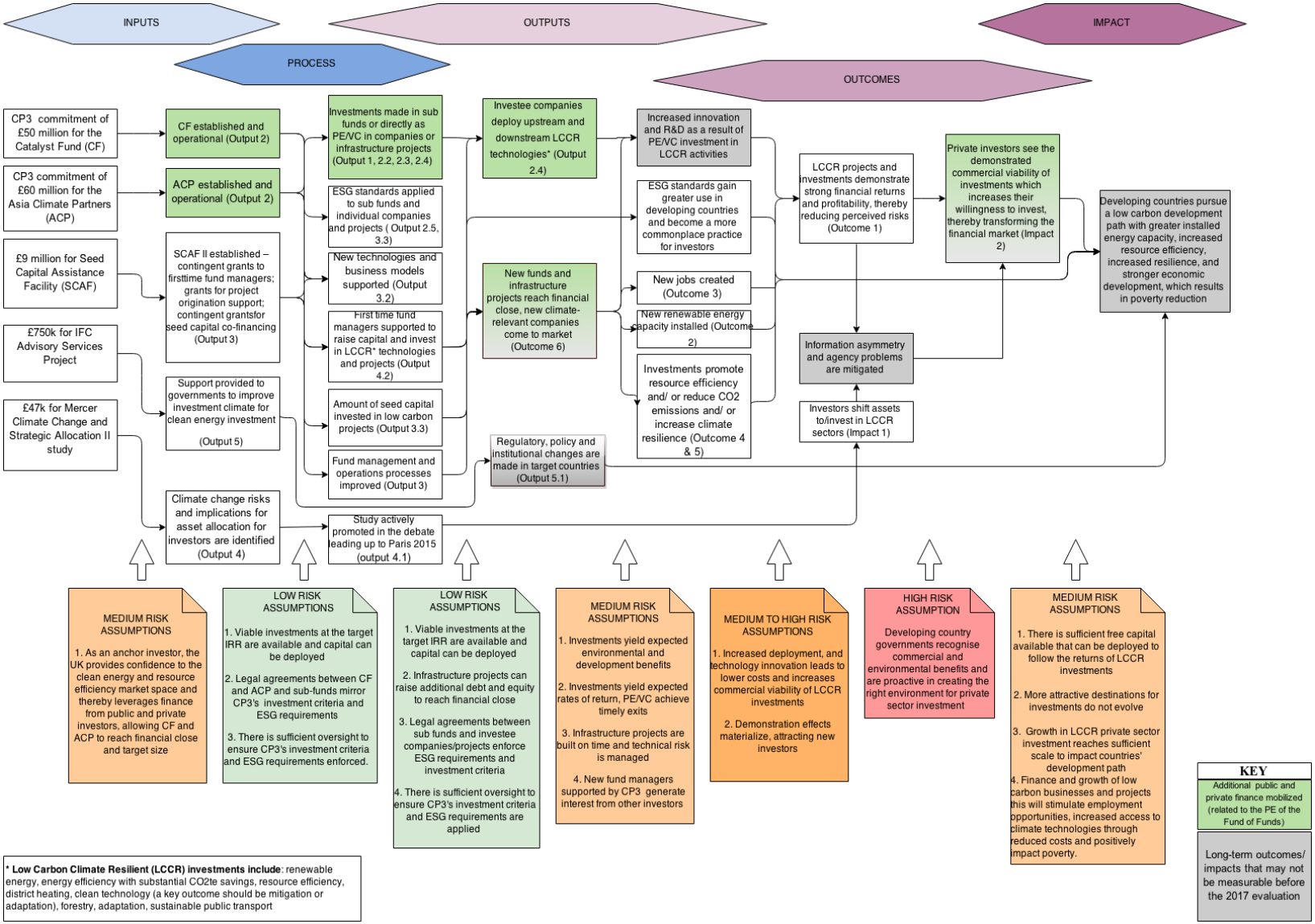
Investments range from US$100k to US$100m and are in a wide variety of individual *companies and projects*. Investments in *projects* are typically equity investments in renewable energy plants through project finance transactions. Investments in *companies* are typically "growth equity" investments to provide capital for smaller, growing companies. Fund managers target an internal rate of return of 20% per year and will hold an investment for 3-7 years with the expectation of selling their stakes for a profit at a future date.

The investments allow companies and projects to grow and leverage additional capital. They also lead to outcomes such as new jobs being created, new renewable energy capacity deployed, and greenhouse gas emissions mitigated. Over time, these investments can lead to transformational changes as other investors see the benefits and invest additional capital in the sector, innovation takes place, and specialized skills are created. These are all mechanisms which can drive a market transformation.

There may also be unintended consequences, such as investments that do not perform according to expectations, and project failures that may detract from the ToC.

The technical assistance component provides support to the market, providing policy and technical support to address complementary gaps (i.e. capacity in project and pipeline developing in these markets) as identified in programme documents. This is primarily delivered through SCAF.

Figure 11 CP3 Theory of Change



ANNEX 2 - TERMS OF REFERENCE

Introduction

1. At the international conference in Cancun in December 2010 Developed Country Governments collectively endorsed a statement to mobilise an additional US$100 billion per annum by 2020 for climate change mitigation and adaptation projects in developing countries. The source of the US$100 billion was to be both public and private. Thus the UK Government has committed £3.87 billion for the period from April 2011 to March 2016 as part of the International Climate Fund (**ICF**) (for more information see here). One of the Ministerial priorities for the ICF is to *'…create new partnerships with the private sector to support low carbon climate resilient growth'* and ICF resources are being used to *'build an enabling environment for private sector investment and to engage the private sector to leverage finance and deliver action on the ground'*. All ICF funding will be spent as Official Development Aid (**ODA**) jointly by DECC, DFID and DEFRA on climate change mitigation (including forests) and adaptation measures.

2. Climate Public Private Partnership (CP3), jointly managed and funded by BEIS (former DECC) and DFID, is a highly innovative programme that uses an unusual model to deliver UK ODA. The CP3 programme is built on the assumption that private finance is essential to delivering substantial developmental and climate benefits, including stronger and more responsive financial markets which are the backbone of productive and low-carbon economic systems where people can take the lead to escape poverty and improve their lives. The long-term evidence needed is to understand to what extent it is possible to "leverage" private finance, i.e. to promote low carbon development through relatively small amounts of donor finance and at faster pace.

Background to CP3

3. The overall aim of the CP3 project is to increase the role of private sector finance in driving low carbon, climate resilient growth in developing countries. CP3 aims to increase the amount of funding in Private Equity (PE) in the climate friendly space both by directly funding two commercially run PE Funds (who in turn fund sub funds and projects which would therefore be able to conclude their investments) and thus inducing a leveraging effect, i.e. bringing on board other donors and other institutional investors (sovereign wealth funds, pension funds and insurance funds), as well as by making direct investments in the climate area. This will also have a "demonstration effect", showing that PE climate investment (and climate projects in general), have good financial risk and return, thereby helping the climate friendly market to grow faster. As such, CP3 will stimulate low carbon sustainable growth in developing countries.

4. The timeline of CP3 is 12 years, (with the option of increasing this annually for 3 years, with agreement of all fund investors [LPs] – known as 12 +1+1+1) starting from 2011 until 2023-2026.

5. The breakdown of the funding is as follows:
   - a returnable grant to International Finance Corporation (IFC) and Asian Development Bank (AsDB) for £110m of equity investment in two top level private equity funds (IFC Catalyst Fund - £50m and CP3 Asia - £60m) which will in turn make equity investments in private equity funds (subfunds) and directly into projects. UK money channelled through the IFC and AsDB respectively will be invested on commercial terms (the same as other investors in to the funds). The progress of both funds is described below:
     - IFC Catalyst Fund (CF) is operational with anchor finance from DFID and DECC of £50M as well as US$75M from IFC with funds under management at the current time (January 2014) of US$396.5M, and is simultaneously making and seeking out investments in investee funds. The IFC Catalyst Fund has recently had agreement to extend the fund raising period to June 2014, in order to attempt to bring the fund to final close at US$500M;

- CP3 Asia will be co-managed by AsDB and an external commercial fund manager with anchor finance from DFID and DECC of £60M, as well as US$100M from AsDB. Progress with CP3 Asia has been delayed. Since the AsDB will have to retender for a fund manager, it is expected for CP3 Asia to commence in the second half of 2014. There is a risk that an appropriate commercial manager for this fund cannot be found on terms that are acceptable to the joint anchor investors[23].

- up to £19m of financing for a partially revolving technical assistance (TA) facility to enable the market for private equity and pipeline projects through policy and regulatory initiatives as well as support schemes for first time fund managers. The focus here is on lower income countries or first-time projects in a country where there is a market failure or first-mover disadvantage justifying the subsidy. There is currently £9.75M committed to two projects: a £750K advisory services project run by IFC, and a £9M investment in a Seed Capital Assistance Facility operated by UN Environment in collaboration with the Frankfurt School of Finance and Management gGmbH. Opportunities to invest the remainder of the TA budget – that is critical to the long term development of the market - are being sought.

Impact and Outcome

6. The intended impact of CP3 is that developing countries pursue a climate resilient low carbon development path resulting in growth, poverty reduction and climate change mitigation. The outcome will be an increase in private sector investing in climate in developing countries in a responsible manner. Indicative indicators for this are:
    - An increase in the overall size of annual private equity (PE) or direct finance flows into low carbon development and adaptation (via CP3 or other projects);
    - The percentage of private sector investors (pension funds, sovereign wealth funds and foundations i.e. survey respondents) placing funds with PE climate finance or making direct climate infrastructure investments;
    - The number of Environment, Social and Governance (ESG) standards mainstreamed into climate finance (equivalent to or better than IFC / AsDB / CDC);
    - Funds (IFC Catalyst Fund, CP3 Asia and sub-funds) performing well in industry and sector e.g. emerging market indices[24].

Objectives of CP3 Monitoring and Evaluation

7. Rigorous monitoring and evaluation (M&E) of CP3 is crucial, for both accountability and learning, to inform on-going delivery and help mitigate some of the risks associated with this highly innovative programme. Specifically, findings will be used to re-focus and adapt elements of the programme where necessary, and to inform similar projects undertaken by other donors or under other funds. A robust M&E approach is needed, and it is equally important that the work produces practical tools, evidence and lessons, which are directly relevant and accessible to the programme and wider audiences.

8. The M&E activities will focus on the steps undertaken within the timeframe of the CP3 programme – understanding what was delivered; what works, where, why and how. The objectives of the monitoring and evaluation therefore are to:
    a. Assess the extent to which the programme has increased the role of private sector finance in driving low carbon, climate resilient growth in developing countries (leverage effect);

[23] Given the different stages of both projects in the project timeline, prospective contractors are required to submit separate bids for the scope of work as described below.

[24] Please see draft logframe for further details.

b. Test whether CP3 delivers transformational effects, showing that PE climate investments have good financial risk and return (demonstration effect)[25];
c. Test the original theory of change and underlying assumptions, using this as a framework for evaluation;
d. Capture, through on-going monitoring, the short and mid-term results delivered by the programme, as set out in the log-frame.

The Requirement

9. The M&E agent will undertake three tasks[26]:
   A. Create appropriate baselines and milestones for the existing CP3 log frame and indicators (with final agreement from DFID), to enable this to be used for on-going monitoring. Many of the indicators in the log frame require a baseline; these need to be established, as well as with milestones that are realistic and measurable, and do not create onerous data collection for investee funds;
   B. Design and establish a system to manage monitoring and data collection on financial and developmental impacts throughout the programme cycle, which will be used for on-going monitoring, and also feed into assessment of the leverage and demonstration effects of the programme. This will be based on the data collected by the fund managers[27], as well as the Technical Assistance projects – collating and aggregating relevant data for DFID/DECC six monthly results returns; assurance function: periodical spot checks on underlying sub funds, and/or their investee projects or firms – verifying compliance with ESG standards, and confirming accuracy of results provided (e.g. MW, CO2e, jobs). It is expected that 2 or 3 country visits will be undertaken each year, but the volume and duration of travel would be agreed on an annual basis to reflect the scale of the programme.
   C. One evaluation midway through CP3's life cycle in 2017 to assess the early financial leverage and demonstration impacts (i.e. those related to the private equity market in general) and synthesise emerging results and evidence undertaken by other donor partners or funds. This evaluation will also test the theory of change (related to financial impacts) and underlying assumptions, using this as a framework for the evaluation. The end of project evaluation will be commissioned and considered at a later date, and will consider the overall impacts, mechanisms and assumptions set out in the CP3 theory of change.

10. The work packages that will be undertaken are further outlined below.

1. Programme Monitoring Management (covering tasks A & B above): One aim of the CP3 monitoring activities is to collect data to build an evidence base. On-going monitoring will capture the short and mid-term results such as, financed leveraged, access to clean energy and jobs created to feed into the overall results collection and accountability work on the ICF. Undertaking relevant data collection is built into the agreements signed with the Fund Managers of the IFC Catalyst Fund and CP3 Asia respectively. It is envisaged that this piece of work will involve the following tasks:

- Development of an inception report within 12 weeks, which includes a detailed work-plan for stakeholder participation throughout the project (e.g. what is required of fund managers and how findings will be fed back to them);

[25] Given the scale of the leverage effect, the actual projects and companies obviously benefit from a range of sources of finance and development support, and their benefits are not solely attributable to the UK intervention. A paper on the attribution of ICF spend is currently being finalised and will be distributed in due course to inform the evaluation.

[26] For all outputs, the tenderer is requested to provide details on how they will deal with the issue of ownership and copyright of these outputs. Likewise, the arrangements for storage and accessibility of any data generated through the work.

[27] For example, IFC AMC collect data through a system called development outcome tracking system (DOTS).

- Management of log frame monitoring, development and reporting over the lifetime of the CP3. This includes establishing any necessary baselines, preparation of data for the biannual DFID-DECC results collection exercise, preparation of required monitoring data for the CP3 Annual reviews, evidence management and target updates for the log frame;
- Updating the current monitoring strategy, when necessary, including leading the ad-hoc review and revision of the theory of change and the logic model indicators to ensure both remain fit for purpose and both sufficiently represent the programme. Discussions and consultation with key stakeholders to this end;
- Assurance: compliance checks and process issues: what sub-funds have been invested in and what direct investments and company investments are. This piece of work will check compliance with the ESG standards, and verify data sent out by fund managers related to claimed results – MW, CO2e, jobs etc that are collected and reported to the public. Furthermore, it would also check that the monitoring systems are set up to properly monitor progress of CP3 over time.

2. CP3 Early mid-term evaluation and Synthesis of evidence

This second work package will take place in 2017, making use of data collected throughout the programme. The mid-term evaluation will need to be designed in advance of this date, including identification of data requirements[28]. By 2017, the Funds will have made a good number of investments and will have begun to collect some of the results from those investments[29]. It is envisaged that this midway evaluation will be a thorough formative evaluation of how CP3 is progressing and assess the early financial and wider impacts of the programme (see provisional evaluation questions listed below) and thus providing a stock-take and mitigating risks, where possible, of fund failure. It will involve the following tasks, which should be considered when proposing the evaluation approach to assess intended outcomes and assumptions in the theory of change, and address the evaluation questions:

- A literature review of other funds and similar / complimentary projects, in order to draw some conclusions about lessons learnt and best practices of mobilising climate finance in low carbon development contexts and creating enabling environments and supporting first time fund managers;
- synthesis from the Programme Monitoring Management and all monitoring data over 2011-2017. In particular, the monitoring data received from all CP3 funds will be synthesised;
- synthesis of data and evidence on the financial impact that CP3 has had to date as regards the private equity market. Through an analysis of the data that currently exits in this sector, and identification of any key data gaps and suggestions about how to address them, it will enable future bottlenecks/issues to be identified and recommendations to be made on how to address them;
- Analysis of findings / data from the financial investment attitude change survey: DFID / DECC has an agreement with EMPEA[30] to include questions on climate friendly investments in their annual survey which has a broad reach within the PE market. EMPEA will provide this data;

[28] Please note that a full and final evaluation of CP3 (i.e. once the CP3 project is complete in 2025-6) is not included in these terms of reference.

[29] However, it is important to acknowledge that HMG's ability to influence the investment strategy of the Funds is very much limited once we are legally bound as Limited Partners. The upfront work in negotiating the Legal Partnership Agreement sets the parameters within which the Fund Managers of the CP3 Funds may invest, following which HMG can audit the Funds to check they are within compliance (see Work package 1), but cannot direct investment or fundraising decisions. Therefore – with the exception of the Technical Assistance component - any mid-term evaluation of CP3 is of limited use in terms of influencing or changing the implementation of the project itself.

[30] EMPEA: Emerging Markets Private Equity Association. See http://www.empea.org/.

- Analysis of the evidence on the success of CP3's capacity building and technical assistance components which will build on separate evaluations planned by IFC (due to be completed in June 2015 and to be provided) and the Seed Capital Assistance Facility (2017/2018);
- Design and undertake bespoke questionnaires and interview guides to use in interviews and survey with stakeholders;
- Conduct interviews with stakeholders including DFID country offices, MDBs, fund managers and country governments, where appropriate;
- Analysis and presentation of the qualitative findings from performing the assurance function and having privileged information on sub-fund investments (this will likely be commercially sensitive so may be annexed or redacted before being made public);
- Evaluate the extent to which the CP3 intervention has been designed, managed and delivered (to date) against the Paris Declaration principles[31];
- Recommendations on approach and coverage for a second mid-term (2021/22) and full and final evaluation, including data requirements and gaps which would need to be filled. Current thinking is that an evaluation at the end of the CP3 project [2025-6] will be necessary to assess the full impact of the project against both outputs and outcomes. We envisage that the final evaluation will cover the financial impacts of the project as well as the impacts on climate and development.

Existing studies and available data for all work packages

11. The monitoring of the CP3 Platform will rely on **regular financial and non-financial reporting and publicly available information.** The key monitoring provisions are summarised below:
    - **Financial reporting**: The CP3 Fund Managers (IFC and other to be confirmed) will provide at least biannual unaudited, and annual audited reports including financial statements, a fund overview, and an overview of the portfolio with information on each portfolio company's or fund's performance and valuation. They will also provide information through their internal monitoring systems;
    - **ESG Standards**: The investment strategies of both Funds and their Investee Funds will be subject to stringent ESG requirements. Investors will have access to all Environmental Impact Assessments and any governance and corruption audits. Environmental and social performance will be evaluated on an annual basis through a report prepared for the AsDB and IFC by the investee fund managers;
    - **Developmental indicators - publicly available information:** Information on improved access to clean energy and jobs created shall be obtained and/or extrapolated from public sources where possible, including (but not limited to) the IEA World Energy Outlook, MDB reporting, UNFCCC financial flows periodic reporting, Bloomberg New Energy Finance;
    - **ICF Key Performance Indicators** will be tracked by DFID and DECC for CP3 in addition to the programme specific indicators, as outlined in the log frame and linked to the theory of change (both annexed).

Indicative evaluation questions to be answered in the mid-term evaluation (to be refined and further developed in the inception phase jointly by bidders and DFID / DECC)

Table 5 Evaluation Questions

Evaluation question	Possible Method/source of data

[31] The Paris Declaration is based on five key principles: country ownership; alignment; harmonisation; managing for development results; and mutual accountability.

1) **<u>Relevance</u>** – what kind of impact has CP3 had on institutional investors and in increasing flows into climate finance? What, if any, unintended effects (positive and negative) has it had?	Interview existing CP3 investors, calculation, tracking and indices.
Indicators	
- No. of PE climate funds in developing countries	Fund manager interviews (new data)
- Type of projects being invested in and where (clean tech and installations and sector)	Information from funds; detailed geographic and sector analysis – charts by % age and year (existing data)
- Co-investors in projects and funds	Interviews with fund managers (new data)
- Levels of carbon savings	Funds/project investments (existing)
- Improvements in installed clean energy capacity	Funds/project investments + data
- Types of energy efficiency projects	Funds/project investments
- Relationship between the Fund managers', the project, and country governments?	Interviews with DFID offices, MDBs, fund managers and country governments (new data)
2) **<u>Effectiveness</u>** – how are the CP3 funds and sub-funds performing financially?	IRRs of funds, performance indices of individual PE funds.
Indicators	
- issues with raising additional funds e.g. debt for project closure	Interviews with fund managers and project developers (new data)
- specific exit and follow on investment issues	IFC and first time fund managers (new data)
- level of success in driving Adaptation investment (forestry, water, agriculture, urban planning, climate resilience) more generally	Information from funds (existing data)
3) **<u>Efficiency</u>** – how are the monitoring systems performing in terms of indicator collection?	Funds/project investments
Indicators	

- success in driving adaptation and forestry investment	Information from funds (existing data)
- drivers of investment, including: political conditions, policy/regulatory conditions, macroeconomic conditions, risk perceptions of technology and operations, industry perception as of competitors, substitutes, buyers, suppliers	Survey – CP3 fund managers (new data) Map against indices e.g. WB DB, climate friendly policies etc (new)
4) **<u>Sustainability</u>** – what are the effects on the wider finance and carbon markets?	Questionnaires (new) Business School enquiries
Indicators	
- Improvements in enabling environment in implementation countries	
- No. and types of first time fund managers	IFC/First time fund managers (new)
- Influence of TA on the amount and patterns of climate finance flows	Interviews with TA project managers, and their partners. (new)
- Extent to which TA has driven development in LDCs	
- ESG standards implemented and mainstreamed (i.e. outside of the two CP3 funds)	Funds, countries, projects
5) **<u>Impact</u>** – have the projects carried out via the funds increased jobs, energy access and security and developmental impact? What other intended and unintended effects (positive and negative) have projects led to?	Survey with funds and investee funds, project analysis and in-country interviews
Indicators	
- No. of jobs:	Survey with funds and investee funds (new data).
- Specific resource/environmental issues addressed and how	People Surveys, reports (new / existing)
- Gender issues addressed	People Surveys
- Forestry issues addressed	Project reviews (existing)
- Technologies and innovations with most developmental impact	Funds/project investments (existing)

These questions and indicators are not prescriptive or absolute, rather, are illustrative. For each, we would expect further questions to be explored, for example, a comparison to pre-CP3 and BAU scenarios; an assessment of how many of the results are attributable to CP3; additional factors that may have influenced these results; and what the relationship is between CP3 and the other identified factors. As such, the indicators relevant to each question are provided as a guide, but it is expected that additional evidence gathering will be required in order to assess all aspects of the programme and its theory of change, including issues such as attribution of outcomes to the programme, and to provide an understanding of *why* certain outcomes and impacts have occurred. This should be clearly set out in the proposed evaluation approach.

It is recognised that there are significant challenges to evaluating CP3, including those related to the complex design of the programme; the length of the timeline; the number of steps between inputs and intended impacts and beneficiaries, and how these can be attributed; and issues regarding availability of data, including financial and commercially sensitive information. Bidders should set out how they will address these and any other key challenges to designing and delivering a robust evaluation of CP3.

Recipient and Intended Audiences

Learning from the CP3 mid-term evaluation in 2017 at project level will be used for understanding what has worked, what has not worked and why. Findings from the M&E work will be used to re-focus and adapt the TA facilities where possible (the fund arrangements cannot be significantly modified). Early monitoring data and/or surveys on investors' attitude can be used to inform similar projects undertaken by other donors or under other funds. Learning from CP3 is not a 'stand-alone' exercise but will feed into the overall ICF knowledge management strategy and strategic evaluation on private sector.

The recipients for the findings will be the UK government, including the ICF Board and sub-committee and project leads in DECC, DFID, HMT, FCO and DEFRA. Findings will also be of use for other donors who provide climate finance, Private Equity investors, multilateral development institutions, multi-donor climate funds, academics and think tanks, developing countries. Depending on when the Green Climate Fund Private Sector Facility (PSF) is set up, early data from CP3 monitoring may be useful, although it is not expected that the PSF will undertake any investments directly. Furthermore, the findings will inform the shape of potential future climate finance projects financed by the UK (either directly or through multi-donor funds), e.g. future ICF projects.

Proposal Requirement

Documentation to be provided by bidders will include a detailed plan of proposed M&E activities including:

- A very well defined and robust methodology and data collection plan, including the collection of baselines[32] and a proposed approach for the early mid-term evaluation, which considers the evaluation questions and envisaged tasks outlined in para 9 and 10 in this document. The approach should integrate Development Assistance Committee (DAC) criteria for best practice in an evaluation. Bidders are invited to submit feasible strategies;
- Details of the general M&E structure, including all key activities;
- Identification of key challenges to designing and delivering a robust monitoring and evaluation approach for CP3, and how these will be addressed;

[32] The primary responsibility for gathering baselines will lay with the supplier of this contract.

- Staffing roles, over the course of the project, their general and project specific qualifications (including CVs[33]);
- Details and specifications on other required resources;
- A timetable for undertaking and completing each of the identified key M&E activities;
- A detailed budget[34].

The bidder should demonstrate how it would manage the monitoring (including audit function) and evaluation effectively, in order to deliver both value for money and robust results.

Skills and qualification of the monitoring and evaluation team

The M&E team must comprise qualified evaluators with extensive M&E experience and/or professional M&E credentials, and a strong track record of conducting comparable work. It is expected that at least one member of the team have specific qualifications or credentials in private sector development with solid experience in low carbon development, private equity investment, corporate finance and project finance. It is expected that the team will have:

- A proven track record in the design and implementation of evaluations;
- Proven track record in robustness of results of delivered evaluations;
- Experience collecting climate and private sector development related data; aggregating data; knowledge of reasonable bounds for results and ability to challenge these;
- Extensive experience and understanding of private finance;
- Extensive experience and understanding of climate, environment, and low carbon development;
- Knowledge of carbon markets;
- The politics and safeguards of the public sector supporting private sector investments/PE/Funds;
- Expertise in, and knowledge of, the political economy;
- Understanding of the modalities/pros and cons of individual trust funds set up with, and implemented by, Multilateral Development Banks;
- Proven track record in conducting cost effective and value for money evaluations;
- Excellent written and verbal communication skills with proven record of delivering clear, succinct, evidence-based evaluation reports; and
- Experience/understanding of practicalities (e.g. working knowledge of disbursement modalities and admin procedures) and politics of inter-departmental Whitehall working.

There should be a designated team leader. The team leader will be expected to fulfil the following duties:

- Setting strategic direction for the different project components;
- Co-ordinating and monitoring the operational performance of the various activities of the project, including appropriate trouble-shooting when required;
- Continuous reporting to DFID as required;
- Providing leadership to enhance the quality and direction of the project.

Management, quality control and reporting

An Evaluation Steering Group will be established to provide guidance and oversee the M&E work. This will comprise of DECC and DFID officials, comprising relevant policy leads and M&E experts of both departments and delivery partners including IFC Advisory Services, IFC Catalyst Fund, UN Environment/Frankfurt School, and AsDB (subject to this fund going forward). The Steering Group will be responsible for ensuring the completion of deliverables, for overseeing the M&E work, and for quality

[33] CVs should be kept to a maximum of two pages each.
[34] For travel, DFID would pay actual travel costs plus day rates.

assurance of the products (additional external QA and expert evaluation input may be sought in due course). The Steering Group will report the findings to interested stakeholders at the conclusion of the assignment.

Reporting Arrangements

The Service Provider will report to the A1 DFID policy lead on the CP3 programme. The Low Carbon Development (LCD) team at DFID, and the M&E experts from DFID and DECC, will stay in regular contact with the contractor in relation to the deliverables. DFID and DECC will ensure that the external provider has access to all relevant project documents and is provided with the necessary level of logistical support for any potential in-country activities.

Budget

The expected budget of this project (from 2014-2017) will be between £400,000 - £560,000. Credit will be given to bids that demonstrate how they will deliver exceptional value for money for the UK taxpayer.

Timing

This programme will run for three years (with potential to run up to 8 years), starting in mid to late 2014 and ending in late 2017 (or 2021/22 subject to progression to the second phase). The breadth and depth of work will vary considerably over the three year contract: an intensive period of work would be envisaged in 2014; followed by on-going data gathering and reporting from 2015-2017 and a comprehensive mid-term evaluation in 2017.

Contracting Arrangements

This programme will be contracted in two phases. The contract will initially be issued to cover the project period from 2014-2017. There will be a formal breakpoint in the contract after the 3 month Inception Phase. Progression to implementation will be subject to the satisfactory performance during inception as well as to agreement on work plans, the proposed Key Performance Indicators (KPIs), outputs and budgets for the remainder of phase 1.

At the end of phase I, DFID will then consider whether to progress to the second phase from 2017-2021/22. If we decide to progress to phase II, we will do so through an amendment to the contract. This decision is subject to strong performance during the first phase, the continuing requirement for the services, and DFID's full satisfaction with the proposed work-plan and budget moving forward.

The final monitoring/audit phase and full and final programme evaluation will be tendered for the period 2021 – 2026 separately. Winners of this contract will be expected to cooperate with the M&E agent that covers the period 2021 – 2026.

Bidders are encouraged to make provisions in their commercial tenders to ensure that payments are subject to performance / delivery of programme outputs.

DFID reserves the right to scale up/back the programme in response to changing requirements. The Service Provider should have the flexibility to respond and adapt to changes or developments to the components of CP3 which are to be evaluated.

Bidders are required to provide detailed costings for the period of 2014-2017, and indicative costings for the remainder of the programme period. Due to the uncertainties around two of the components, bidders are asked to clearly split their budgets out to reflect the costs of the monitoring and evaluation of three potential components of the programme[35]:

- £50m IFC Catalyst Fund and £10m TA projects (total £60m);
- £60m CP3 Asia project, yet to be finalised;
- £9m additional, yet to be defined, TA facility.

[35] Whilst the IFC Catalyst Fund has successfully been established, there is still some degree of uncertainty around CP3 Asia as there have been some significant delays. There is also the possibility that a further £9m of an additional TA project may not be spent.

ANNEX 3 - PURPOSE, SCOPE AND OBJECTIVES

Purpose & Objectives

The MTE provided answers to the evaluation questions and synthesize lessons learned, in order to:

1. **Assess the success of the CP3 programme** in driving low-carbon, climate resilient growth in developing countries.
2. **Test whether CP3 delivers transformational effects**. Transformational effects take place when CP3 activities demonstrate to the private sector that climate investment is commercially attractive and when CP3 activities build mechanisms and enabling frameworks that help sustain a transformation over the long term[36].
3. **Test the theory of change model** and its underlying assumptions. Due to the innovative nature of CP3, the M&E agents paid particular attention to learning about the effectiveness of utilizing PE to catalyse private investment and through it, deliver development benefits.
4. **Capture the results of the programme** through on-going monitoring, as set out in the log frame and if required make changes to the logframe to ensure that performance and results of the programme are captured and recorded appropriately.

Evaluation Scope

The scope of the MTE focused on the ongoing funds and TA activities that were funded through CP3. This includes the CF and its investee funds, ACP and its investee companies and SCAF II.[37] The MTE did not focus on the two TA activities that have already been closed (Mercer and IFC Advisory Services) which form a very small part of the overall portfolio and have already been evaluated with an end of term note. The scope of activities outlined by the completed approach paper and in covered in the MTE do not represent any major changes to those included in the MTE in the ToR for this assignment or the CP3 Inception report, with the exception to the timeframe for the MTE and the structure to the Evaluation Questions which have been refined.

Target audiences

The target audiences for the evaluation are primarily DFID/BEIS programme managers, stakeholders from the programmes funded by CP3 and other stakeholders involved in programmes aiming to catalyse private finance for climate-relevant activities.

Time frame

The time frame for assessment is from the programme's design and inception in 2010 to mid-2018 when the data for the MTE was collected. While the timeframe is broad to capture key aspects in the programme, the assessment primarily focused on the years 2014-2018, when funds have actively made investments and produced outcomes and impacts.

[36] A detailed explanation of transformational impacts and the approach to assess them is available in section 0 Transformational Change assessment

[37] For SCAF, the evaluation largely drew on the findings of an ongoing UNEP funded evaluation of the SCAF facility, with some limited data collection to answer the evaluation questions unique to the CP3 evaluation.

ANNEX 4 - METHODOLOGY

The MTE is a formative evaluation, to assess intended outcomes and assumptions in the theory of change and address evaluation questions. The MTE undertook the following activities:

- **Synthesize all monitoring data received** from the CP3 Programme, including all financial reporting and logframe data collected.
- **Report on the programme's outputs and outcomes** and provide a detailed assessment of the reasons and contexts in which these were or were not achieved. As part of this, graphics and communications products were produced to promote sharing of results and lessons with CP3 stakeholders.
- **Carry out a contribution analysis** to understand the contributions of CP3 to programme outputs, and how these results should be attributed.
- Carry out a case study that focuses on **understanding the financial impacts** of CP3 and its ability to leverage finance directly and indirectly through market changes and changes in investor attitudes.
- **Map all financial flows** of the programme through its investees, investment modalities, sectors, and geographies.
- **Synthesize and provide conclusions on the additionality of CP3**, both in terms of its investment activities, and in the context of the activities of other similar funds.
- Evaluate the extent to which the CP3 intervention has been designed, managed and delivered (to date) against **the Paris Declaration principles**[38]
- **Design an approach for the second phase** of the monitoring and evaluation CP3 programme (through 2022)

The MTE has made recommendations on the design, management and governance of CP3 and similar climate programmes based on the learnings from these activities. The MTE provides the UK Government and other stakeholders with a clear picture of how the CP3 programme is functioning compared to the expectations of the business case and whether it is delivering on its intended impacts. Learnings generated from this evaluation will be useful not only to feed into the management of the programme but also to disseminate knowledge that can help governments around the world catalyse climate finance that contributes to LCCR development.

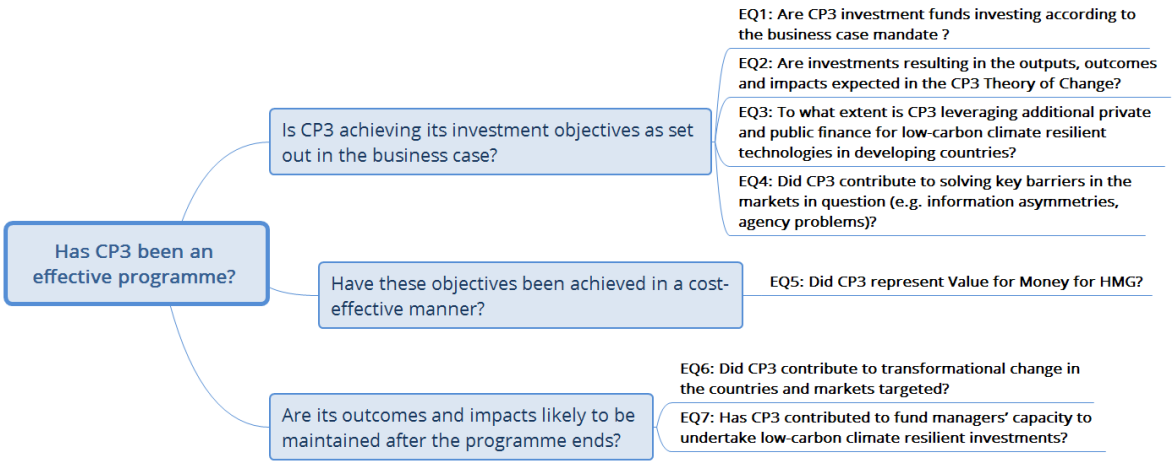
The following sections provide an overview of the methodologies used to analyse the data gathered and to formulate the findings presented in this MTE. Full methodologies on the approaches used for financial leverage, contribution analysis and additionality can be found in their respective case studies.

Evaluation questions

Evaluation questions (EQs) were defined in order to deliver the objectives of the MTE as set out in the Terms of Reference of this assignment. The primary goal is to assess the success of the programme in delivering its objective of driving low-carbon and climate resilient growth in developing countries. This goal should have been delivered in a cost-effective manner according to Value for Money mandates and also be sustainable over the long-run, in accordance to OECD DAC criteria. Figure 12 shows EQs as a set of nested questions to meet these objectives.

Figure 12 Linkages between evaluation questions and overall evaluation aims

[38] The Paris Declaration is based on five key principles: country ownership; alignment; harmonisation; managing for development results; and mutual accountability.



Additionally, a set of sub questions were derived to better understand elements needed to answer each, the methods that would be appropriate, and to dive deeper into the operations and implementation of the programme. These are shown in Table 6.

Table 6 Sub evaluation questions

EQ	Question	Sub-Questions
1	Are CP3 investment funds investing according to the business case mandate?	*1a. To what extend did the fund managers' implementation of the investment mandate align with that of CP3 objectives? Why or why not?'* *1b. Was the structure and governance of the funds appropriate to meet the investment mandate?* *1c. Were there effective controls in place?* *1d. What alternative investment strategies or operating models could have been used to meet CP3's objectives?* *1e. Are ESG safeguards applied to CP3 investments and implemented in practice?*
2	Are investments resulting in the outputs, outcomes and impacts expected in the CP3 Theory of Change?	*2a. Are CP3 investments going to companies and projects that are supporting development and deployment of LCCR technologies in L&MIC?* *2b. Are CP3 investments going to companies and projects that enable vulnerable populations to adapt to negative impacts of climate change?*
3	To what extent is private equity provided by CP3 leveraging additional private and public finance for low-carbon climate resilient technologies in developing countries?	*3a. Is CP3 leveraging additional private and public finance?* *3b. What are lessons learned about good practice in mobilizing climate finance, creating enabling environments and supporting first time fund managers?*
4	Did CP3 contribute to solving key barriers in the markets in question (e.g. information asymmetries, agency problems)?	*4a. Is the programme still relevant considering changing market and political contexts for LCCR investment?* *4b. Did CP3 address critical hurdles in the markets and sectors in question?*
5	Did CP3 represent Value for Money for HMG?	*5a. Is CP3 providing VFM for HMG?* *5b. Are monitoring and management systems achieving intended outcomes in a time and cost-efficient manner?*
6	Did CP3 contribute to transformational change in the countries and markets targeted?	*6a. Are investments likely to meet intended outcomes? What are other intended and unintended impacts?*

		6b. What evidence is there that tCP3 investments provide transformational or demonstration effects? *6c. Did CP3 demonstrate to investors that climate investments are both feasible and profitable?*
7	Has CP3 contributed to fund managers' capacity to undertake low-carbon climate resilient investments?	*7a. Are CP3 supported funds planning additional fundraising rounds?* *7b. Has CP3 supported first-time fund managers?* *7c. Has CP3 increased technical capacity in LCCR investment that will sustain further climate investments in the countries and sectors in question?* *7d. Have SCAF LPs made decisions to allocate funds to specialist project developer funds?*

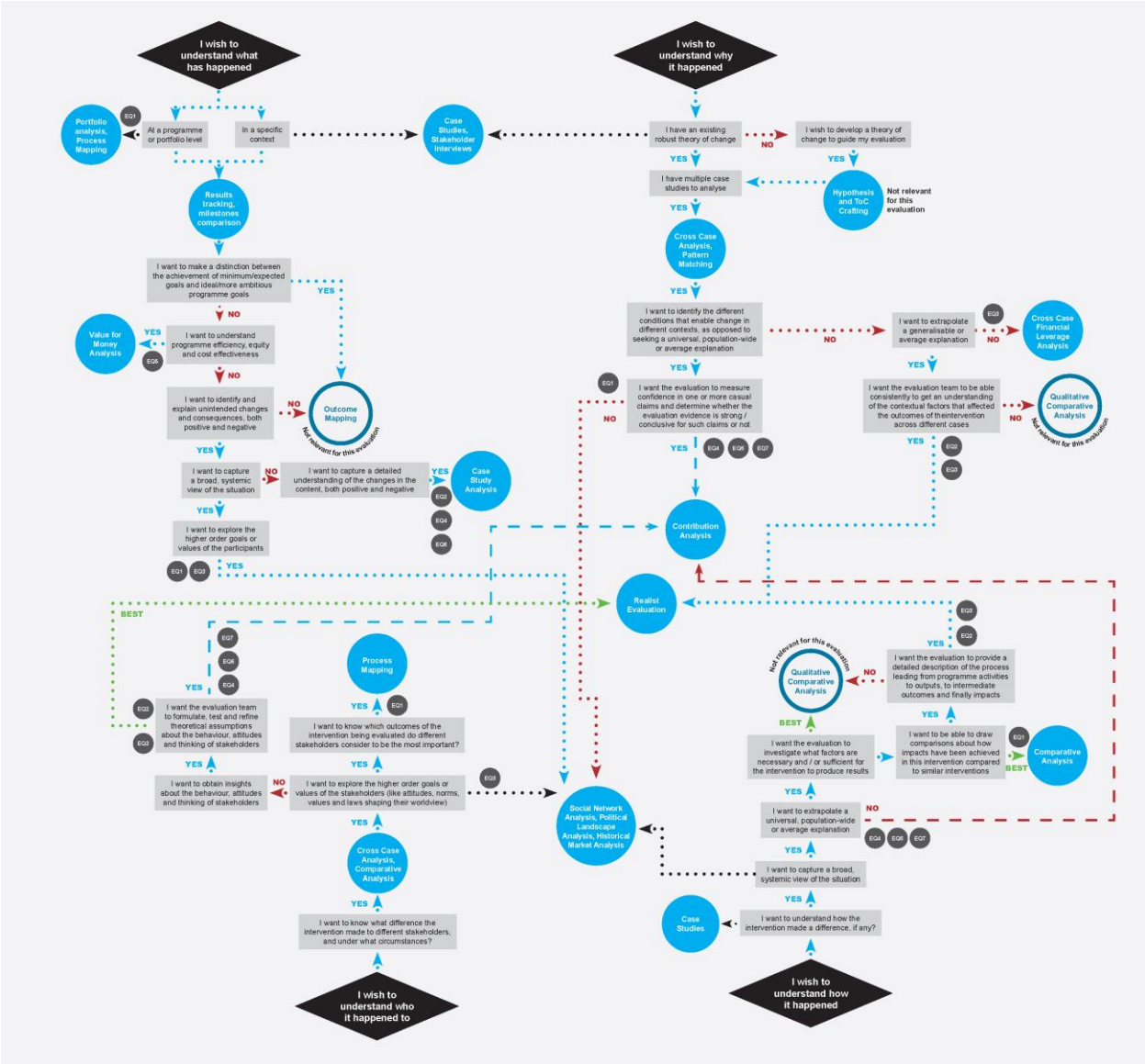
Evaluation methods

A theory-based, mixed methods approach was used to evaluate CP3. Theory-based evaluation was appropriate as it is suitable when an intervention or the context of implementation has attributes of complexity.

Figure 15 shows the process diagram that was used by evaluators to select methods best suited to answering the above evaluation questions. This process map draws on evaluation best practice, the attributes of the CP3 programme, the context within which it operates and on the requirements of the evaluation questions to identify the most suitable methods.[39] Each of the four questions in the black boxes are broad questions that most evaluations seek to answer followed by a variety of sub-questions that are still broad, but relevant to this evaluation. The evaluation questions are then mapped to each sub-question to clearly link the CP3 MTE evaluation questions with the generic questions listed in this diagram. The methods that were considered, but not relevant for this evaluation are also marked. A description of some of the methods applied is provided in the following section.

[39] Based on guidance and information described in Choosing Appropriate Evaluation Methods: A Tool for Assessment and Selection, October 2016 Published by Bond, Society Building, 8 All Saints Street, London N1 9RL, UK.

Figure 13 Methods selection diagram



Evaluation matrix

Table 7 evaluation matrix for the MTE. The evaluation matrix identifies the evaluation questions, relevant sub-questions, and provides an overview of the approach used to answer the questions as well as data gathered for the assessment. Multiple methods and data sources were used to answer each question to support greater triangulation and corroboration of evaluation findings. The table also describes how the evaluation summarised the findings and analysis from the questions.

Table 7 Evaluation Matrix, relevant methods are described in detail in subsequent sections

EQ	Question	Sub-Questions	Overview of methods and data sources	Outputs
1	Are CP3 investment funds investing according to the business case mandate?	*1a. To what extend did the fund managers' implementation of the investment mandate align with that of CP3 objectives? Why or why not?'* *1b. Was the structure and governance of the funds*	Using an existing database of CP3 investments, the M&E agents analysed and categorized investments according to sectoral focus and relation to climate change mitigation and adaptation objectives. This analysis was complemented with fund manager interviews and a review of fund documents to understand investment approaches, governance, and any	**Output 1:** Written section in MTE report and supporting data. In addition to the EQ, the section will also explore further assessment questions: **Output 2:** CP3 investments data provided in Excel format.

		appropriate to meet the investment mandate? *1c. Were there effective controls in place?* *1d. What alternative investment strategies or operating models could have been used to meet CP3's objectives?* *1e. Are ESG safeguards applied to CP3 investments and implemented in practice?*	potential deviations from original mandates. **Relevant methods:** Landscape analysis of CP3 finance flows, process evaluation of passing down of the mandate, and contribution analysis. **Data sources:** CF, ACP and SCAF financial reports, fund governance documents, ESG documents, fund manager interviews, and independent research from company websites and industry sources.	
2	Are investments resulting in the outputs, outcomes and impacts expected in the CP3 Theory of Change?	*2a. Are CP3 investments going to companies and projects that are supporting development and deployment of LCCR technologies in L&MIC?* *2b. Are CP3 investments going to companies and projects that enable vulnerable populations to adapt to negative impacts of climate change?*	Using the logframe and case study data that has been collected on an ongoing basis since 2014, the M&E agents synthesized results and sought to understand the specific contributions of CP3 towards outcomes as articulated in the Theory of Change. **Relevant methods:** Synthesis methods drawing on the CP3 logframe. **Data sources:** Logframe data, existing case studies, and other interim M&E outputs	**Output 1:** Written section in MTE report and supporting data. **Output 2:** Infographic detailing key results from CP3 e.g. MW of renewable energy deployed, jobs created, etc.
3	To what extent is private equity provided by CP3 leveraging additional private and public finance for low-carbon climate resilient technologies in developing countries?	*3a. Is CP3 leveraging additional private and public finance?* *3b. What are lessons learned about good practice in mobilizing climate finance, creating enabling environments and supporting first time fund managers?*	This question was answered firstly through a quantitative assessment of CP3-related investment flows to show sources, destinations, recipients and types of instruments used to mobilize capital. This was visualized through a "CP3 Financial Landscape" using Sankey diagrams. A case study was also undertaken to further explore the contributions of CP3 to financial mobilization by other investors. **Relevant methods:** Landscape analysis of CP3 financial flows, synthesis methods and financial leverage case study. **Data sources:** CF and ACP quarterly financial statements, investor interviews, previous case study results, CP3 logframe	**Output 1:** Written section in MTE report. **Output 2:** Visualization of financial flows using Sankey diagrams.
4	Did CP3 contribute to solving key barriers in the markets in question (e.g. information asymmetries, agency problems)?	*4a. Is the programme still relevant considering changing market and political contexts for LCCR investment?* *4b. Did CP3 address critical hurdles in the markets and sectors in question?*	The question was answered first by synthesising data from case studies and carrying out investor interviews to understand critical hurdles in key CP3 markets. Then, the contribution of CP3 towards overcoming these hurdles was explored by looking at changes observed and the roles CP3 investee funds played in unlocking investment. The analysis takes time-sensitivity into account and reviews whether CP3 can adapt to a changing market.	**Output:** Written section in MTE report and supporting data.

			Relevant methods: Synthesis methods, including realist synthesis, contribution analysis **Data sources:** Previous case studies, investor interviews, ongoing data collection, and other interim M&E outputs.	
5	Did CP3 represent Value for Money for HMG?	*5a. Is CP3 providing VFM for HMG?* *5b. Are monitoring and management systems achieving intended outcomes in a time and cost-efficient manner?*	To assess Value for Money, the M&E agents focused on the following questions according to the DFID VfM guidance: 1. Economy: What were the costs of delivering impacts from the programme and how did these compare to alternatives? 2. Efficiency: Were the outputs of the programme delivered in a way that was cost-effective compared to alternatives? 3. Effectiveness: Did CP3 achieve its objectives as set out in the business case? 4. Equity: Did CP3 reach its intended beneficiaries? **Relevant methods**: VfM assessment approach **Data sources:** CF and ACP quarterly financial statements, investor interviews, and previous case study results.	**Output:** Written section in MTE report and supporting data. The section will also explore these follow-up questions: - What alternatives (other fund managers, structures, types of financing) could have been used to meet the objectives? - Did the investment structure of CP3 and the private equity funds provide value compared to other funding modalities?
6	Did CP3 contribute to transformational change in the countries and markets targeted?	*6a. Are investments likely to meet intended outcomes? What are other intended and unintended impacts?* *6b. What evidence is there that tCP3 investments provide transformational or demonstration effects?* *6c. Did CP3 demonstrate to investors that climate investments are both feasible and profitable?*	To answer this question, the transformational change methodology was applied, and findings synthesised. Contribution analysis was used to understand the extent of CP3's contribution to transformational change. **Relevant methods:** Transformational change, Contribution analysis **Data sources:** ongoing results collection including previous annual reviews, case studies, and logframe.	**Output:** Written section in MTE report and supporting data.
7	Has CP3 contributed to fund managers' capacity to undertake low-carbon climate resilient investments?	*7a. Are CP3 supported funds planning additional fundraising rounds?* *7b. Has CP3 supported first-time fund managers?* *7c. Has CP3 increased technical capacity in LCCR investment that will sustain further climate investments in the countries and sectors in question?* *7d. Have SCAF LPs made decisions to allocate funds to*	Contribution analysis was conducted focusing on barriers specific to fund managers, and the contributions made by CP3 towards increasing their capacities and activities in the "cleantech" space. There was a particular emphasis on the role of SCAF in incubating and supporting the development of fund managers and cleantech projects. **Relevant methods:** Contribution analysis, thematic synthesis **Data sources:** Fund manager interviews, interviews with SCAF, SCAF	**Output:** Written section in MTE report and supporting data.

		specialist project developer funds?	MTE and quarterly reports, and case study results.	

Linkages to OECD DAC Criteria

The five evaluation criteria from the Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD) establish guidelines and standards for development evaluations. The CP3 MTE follows OECD DAC guidelines in its design. The table below shows how the MTE questions presented in the previous table link to the OECD DAC criteria:

Table 8 OECD DAC Criteria

Criteria	Meaning	Answered through the following CP3 MTE Questions
Relevance	How relevant is CP3 in relation to national priorities?	EQ 1-4, 6
Effectiveness	Are objectives being achieved?	EQ 1-4, 6
Efficiency	Are objectives being achieved economically?	EQ 5
Impact	Does CP3 achieve development objectives?	EQ 1-4, 6
Sustainability	Are positive impacts from CP3 sustainable	EQ 6-7

Principles guiding the evaluation

The MTE has been a theory-based, mixed methods evaluation following UK Government and industry good practice.[40] Table 9 below summarises how we sought to meet the evaluation best practice as outlined in the literature[41].

Table 9: Evaluation elements and principles and how they are met by our design

Key principle	Application in our design
Understanding context	Where investment level analysis is undertaken, the evaluation was rooted in deep contextual knowledge through the use of local experts to support analysis. We also collected data on how the context has changed since design and to what extent this has enabled or constrained programme influence at programme and investment levels.
Mapping out causal chains	The theory of change for the programme is included in Annex 0.. Realist-inspired approaches were used to assess the role of contextual factors in influencing the success of programme mechanisms. Evidence to assess the validity of causal links and to identify other causal factors was collected on an ongoing basis.

[40]DFID (2013) Evaluation Policy and Stern, E., Stame, N., Mayne, J., Forss, K., Davies, R., & Befani, B. (2012). Broadening the range of designs and methods for impact evaluations: Report of a study commissioned by the Department for International Development. DFID: Department for International Development

[41] White, H. (2009). Theory-based impact evaluation: principles and practice. Journal of development effectiveness, 1(3), 271-284.

Reliability	The designs and methods put forward are established, well documented and take into account evaluation questions and intervention attributes. They allow for success and failure to be captured, as well as intended and unintended impacts to be explored.
Choice of methods/use of mixed methods	We used a mixed methods approach for assessing if the CP3 is an effective programme. Our methods were tailored to available data and to stakeholder needs.
Proper application of methods	Our broad team ensured access to appropriate specialists for selected methods and multi-level quality assurance was prioritised.
Transparency	Conclusions were generated from credible evaluation evidence and have been clearly documented, to ensure that key stakeholders can understand their validity and legitimacy.
Ethical	All our evaluations comply with *UK Government Social Research Unit Professional Guidance for Ethical Assurance for Social Research* and UK Data Protection law and any nationally-required standards. An approach that protected confidentiality was applied and agreed with all stakeholders involved.

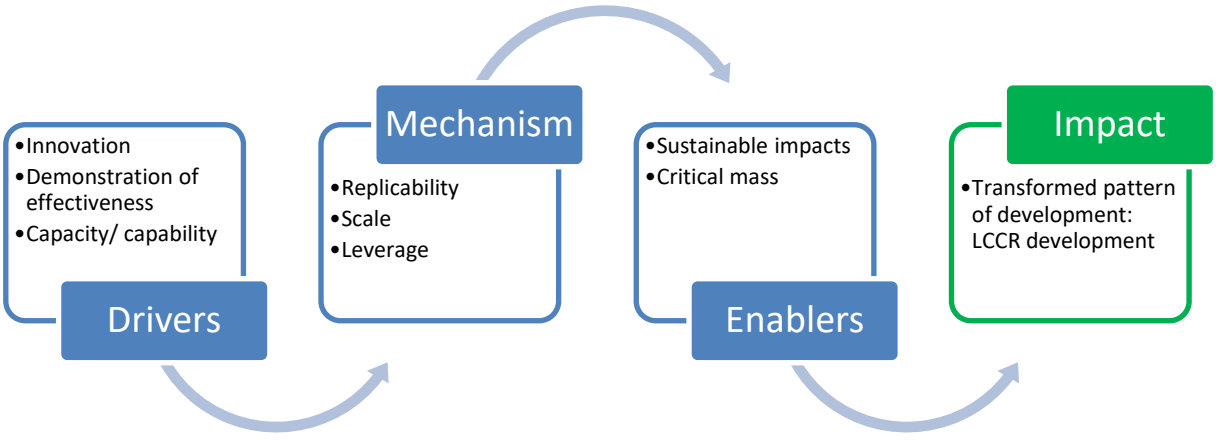
Transformational Change assessment

Transformational change is defined as a change which catalyses further change, enabling either a shift from one state to another (e.g. from conventional to lower carbon investment patterns) or faster change (e.g. accelerating the shift towards low carbon economies by accelerating the deployment of LCCR capital). Transformational change entails a range of simultaneous transformations to political power, social relations, markets and technology. Given CP3's focus is demonstrating LCCR investments and transforming markets, we mostly focus on the last two: markets and technology.

The connection between CP3 equity investments, demonstration effects and long-term changes in attitudes and investment patterns is at the core of the transformational potential of CP3. In addition, the long-term creation of institutional knowledge and capacity that enables greater investment is also considered transformative in the case of CP3 TA component, and in particular SCAF, which provides seed financing to support project development in these markets.

CP3 can contribute to transformational change by supporting drivers, mechanisms, and enablers of transformational change. Drivers introduce change onto a system (e.g. demonstration that LCCR technologies are a profitable investment). Enablers sustain and scale up a transformation, mainstreaming new mechanisms to become the status quo (e.g. new law to enable faster integration of renewables into the grid). Mechanisms are established processes and practices, a change in which can sustain a transformation (e.g. ESG compliance becomes part of due diligence for all investments).

Figure 14 How CP3 can create transformational change



Due to the long timeframes involved in observing transformational change, it was decided to focus the assessment on proxy indicators, assessed through a rubric. Proxies to transformational change, were categorized according to functions they fulfil in imparting a change on a system. This is derived from the ICF Methodology on KPI 15 (see Table 10 below).

In the MTE, the M&E Agents expanded this high-level tracking of transformational change by an in-depth analysis and thematic synthesis of indicators of transformational change, drawing on the findings from relevant studies including the contribution analysis, financial leverage case study, and additionality study. This analysis focused around the three themes laid out in KPI 15; drivers, mechanisms, and enablers:

- **Drivers** are inducers of change onto a system (e.g. demonstration that LCCR technologies are a profitable investment).
- **Mechanisms** are established processes and practices, a change in which can sustain a transformation (e.g. ESG compliance becomes part of due diligence for all investments).
- **Enablers** sustain and scale up a transformation, mainstreaming new mechanisms to become the status quo (e.g. new law to enable faster integration of renewables into the grid).

Table 10 Rubric for KPI 15

Category	Criteria	Rationale	Indicators	Supporting qualitative evidence
Drivers	Early demonstration effects / replicability	Investments initiated under CP3 should demonstrate financial feasibility and influence others	1. Funds (ICG, CP3 Asia and sub-funds) perform well in industry and sector indices; 2. Funds achieving competitive IRRs	Perceptions of Fund, Sub-Fund & Project/Company Managers about market trends in Clean tech in emerging markets. Examples of IRR across different investment types.
	Capacity and capability	SCAF aims to support fund managers in underserved markets and develop a pipeline of projects through an increase in availability of early stage capital, thereby building capacity in the market.	1. Supported funds reaching financial close 2. Supported projects/ companies reaching financial close 3. Number of employees in green jobs	Interviews with recipients of SCAF support; Log frame indicators
	Leverage	The ability to leverage finance at fund of fund, sub-fund and project/company level is critical to the achievement of transformational change.	1. Additional financial contributions per investor at fund of funds level; 2. Additional financial contributions at the investee fund level 3. Additional capital mobilized or co-invested at individual investment level, by debt or equity, % of projects achieving	Perceptions of fund, sub-fund & project/company managers, expert informants about leverage performance and potential to influence others. Examples of performance standards for leverage ratios across different investment types.

			benchmarked leverage ratio	
Mechanism	"First mover"	CP3 should be the first to move in a particular country, sector or technology in order to play a catalytic role in the market.	1. Number of projects or technology companies supported by CP3 deployed for the first time in a specific country/region; 2. Number of new or innovative business models supported by CP3	Perceptions of fund, sub-fund & project/company managers, expert informants.
Enablers	Innovation and technology transfer	CF, ACP and SCAF invest in high risk technologies or innovative business models. However, it is not expected that these investments would form a large part of the portfolio. Transformational impacts will be best secured through achieving an optimal balance between profitability, scale and innovation.	1. Number of new or innovative business models supported by CP3 2. Number of patents being developed 3. Clean energy capacity installed in under-represented countries	
	Sustainability	Over the longer term, CP3, through demonstrating high rates of return, will catalyse private equity investors worldwide to make similar investments and therefore transform the amount of money going into low carbon growth in developing countries.	1. Overall annual private finance flows into low-carbon, climate resilient investments in developing countries 2. Percentage of EMPEA survey respondents who have plans to invest in clean tech in emerging markets	Perceptions of fund managers, expert informants regarding CP3's impact on the broader market

Value for money

DFID's 4E approach considering Economy, Efficiency, Effectiveness, and Equity was used to make an assessment of Value-for-money (VfM). Specific indicators were developed within each of the 4E categories that directly tie in to the CP3 Business Case and Theory of Change (see section above). These indicators considered the economy of the programme in relation to programme results. Descriptive synthesis was used to generate conclusions from the evidence collected.

Table 11 Value for Money indicators for CP3

Category	Indicators and analysis questions

Economy – Was the operationalization of the CP3 business case cost-effective?	- Fees charged by fund managers and other implementation entities. - Program administration costs
Efficiency – Were the outputs of the program delivered in a way that was efficient compared to alternatives?	- In depth analysis of monetary inputs of the program in relation to outputs achieved and comparison with alternatives for: o Delivery of outputs as set out in ToCs and Business Case o Additionality o Financial leverage achieved o Financial returns and investment performance e.g. valuation of investments to-date, timeliness of activities within agreed investment period.
Effectiveness – Did CP3 achieve its objectives as set out in the business case? How did it compare to alternatives?	- EQ1-4 and EQ6-7 and all their sub questions relate to the effectiveness of the programme. We provided a synthesis on effectiveness based on these questions.
Equity – Did CP3 reach its intended beneficiaries in an equitable manner?	- Gender disaggregated indicators and other analysis on gender effects of CP3

Landscape analysis of CP3 finance flows

A landscape analysis of CP3 finance flows was undertaken to provide insights into the flows and recipients of finance provided by CP3 and its co-investors. The approach was derived from CPI's Global Landscape of Climate Finance (GLCF), an annual, empirical study undertaken by CPI that assesses global financial flows towards mitigation and adaptation activities. It categorizes flows along their lifecycles, from public and private sources and intermediaries, through a variety of financial instruments, to recipients and the final uses of climate finance on the ground.

1. The assessment applied GLCF approaches and definitions as appropriate to CP3. The assessment used empirical financial data reported through CP3 funds. It captured financial flows from investors, through financial intermediaries to investments (holdings) on the ground.
2. Further, the M&E agents provided a breakdown and analysis of current trends in the portfolio and what they mean in the context of CP3's objectives.

Table 12 below shows the categories of public investors, private investors, mitigation and adaptation sectors, and geographies that have been included in the assessment. The information is provided via the figure 3 and figure 4 in section 4.

Table 12: Categories for CP3 Landscape of Finance Flows

Data presented in CP3 finance landscape analysis	**Scope (Data included)**			
	CF	ACP	CF investee funds	Project level
• Sources and intermediaries o Public o Private	Yes	Yes	Yes	Where data is available

• Recipients/ Investment Strategy o Growth equity investments o Infrastructure investments			Yes	Yes
• Sectors o Mitigation o Adaptation				Yes
• Geographic flows o Recipient countries				Yes

Synthesis methods

Synthesis of evidence in one form or another was necessary for all aspects of the evaluation and for most evaluation questions. For the purposes of the evaluation, we distinguish between 'descriptive' synthesis and 'explanatory' synthesis approaches. These not only have different purposes but also reflect different epistemological standpoints.[42]

Descriptive synthesis includes those approaches which aggregate quantitative data or which present simple analysis of factually verifiable qualitative data. The findings drawn from this type of synthesis rely largely on facts or fixed assessment criteria and only minimally on evaluator judgement or interpretation. They reflect what Spencer et al (2003)[43] described as a *scientific realist* epistemological position – i.e. that it is possible for knowledge to approximate closely an external reality.

Explanatory synthesis was used for those evaluation questions where a much greater use of evaluator judgement, and interpretation was required. This is correlated with questions which require assessment of the extent of particular changes or the relative importance of some factors over others. It therefore relied upon a critical realist epistemological paradigm – i.e. those situations where our knowledge of reality is mediated by our perceptions and beliefs and where multiple interpretations are possible using similar data.

The relevance of these different approaches to different evaluation questions is presented in Table 13 below.

Table 13 Synthesis Methods Used for Each Evaluation Question

EQ	Question	Types of synthesis used
1	Are CP3 investment funds investing according to the business case mandate?	**Descriptive***:* Assessment criteria pre-agreed by stakeholders and results from each fund explored separately and aggregate data presented. **Explanatory** synthesis used to make an assessment of how the criteria have been interpreted and applied in each fund.
2	Are investments resulting in the outputs, outcomes and impacts expected in the CP3 Theory of Change?	**Descriptive** synthesis aggregates programme outputs and portfolio review data. **Explanatory** synthesis uses an assessment of ICMO configurations agreed internally by LTS and CPI and confirmed with DFID and BEIS.
3	To what extent is private equity provided by CP3	**Descriptive:** Results from the selected sample presented.

[42] This is based on an assessment of the conceptualization of methods for synthesis as being on a continuum from aggregative approaches at one end to interpretive synthesis methods at the other and for the need for methods which both describe and explain reality. See: Thomas, J., Harden, A., and Newman, M., 2012. Synthesis: combining results systematically and appropriately. In: D. Gough, S. Oliver, and J. Thomas, eds. An introduction to systematic reviews. London: Sage, 179–226

[43] Spencer, L., Ritchie, J., Lewis, J., & Dillon, L. (2003). Quality in qualitative evaluation: A framework for assessing research evidence. London: National Centre for Social Research, Government Chief Social Researcher's Office, UK.

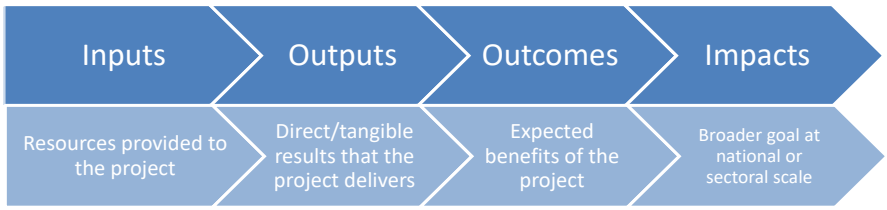
	leveraging additional private and public finance for low-carbon climate resilient technologies in developing countries?	**Explanatory:** Identification of different perspectives and assessment of the reasons for the success of the CP3 mechanism using thematic synthesis.
4	Did CP3 contribute to solving key barriers in the markets in question (e.g. information asymmetries, agency problems)?	**Explanatory*:*** Thematic synthesis bringing together findings from the literature review, stakeholder perceptions, and our ICMO process. The evidence coding saturation index identifies where there is a credible case to suggest that CP3 successfully identified the key barriers and contributed to overcoming these.
5	Did CP3 represent Value for Money for HMG?	**Descriptive:** Present the data for economy, efficiency and conclusions drawn based on available benchmarks and targets. **Explanatory:** Thematic synthesis of different data sources to understand the VfM of the mechanism developed.
6	Did CP3 contribute to transformational change in the countries and markets targeted?	**Descriptive:** Outline of performance according to the elements characterized in the transformational change rubric. **Explanatory:** Thematic analysis of evidence and the contribution analysis drawn on to identify the extent of CP3's contributions, the other important contextual factors and the most important mechanisms.
7	Has CP3 contributed to fund managers' capacity to undertake low-carbon climate resilient investments?	**Descriptive:** Outputs from the contribution analysis and from the SCAF component and coded findings from interviews with selected SCAF-supported funds presenting the views of different stakeholders. **Explanatory:** Contribution framework used to assess capacity of fund managers supported by the FoFs and SCAF, looking at the main outcomes of the SCAF programme, the influence it has over decisions made by SCAF LPs and the role of other contextual factors.

Descriptive Synthesis

Descriptive synthesis was applied to the aggregation of reported results in the CP3 logframe, the assessment of economy and efficiency via the Value for Money analysis and the completion of the transformational change rubric. Detailed information on CP3 performance against logframe targets is included in the 2018 Annual Review results reporting. More information on the relevance of this approach to synthesising logframe data is available in the box below.

Synthesis of logframe data

The indicators outlined in the CP3 logframe are designed to measure progress at different points along the causal chain outlined in the Theory of Change and to test the validity of the assumptions upon which the ToC is based. The indicators document the progress of CP3 implementation as well as the medium to long-term results achieved.



We will measure:	DFID/DECC contributions to CP3	Activities at the fund or programme level	Results of projects and secondary funds	Changes in the market

The logframe data collected as part of ongoing monitoring and evaluation since 2015 was synthesized to assess the delivery of CP3 and the available evidence to suggest it has resulted in the desired outcomes and impacts. Much of the detailed performance information has been included in the 2018 Annual Review output.

Realist synthesis inspired approach

A range of explanatory synthesis methods were applied in the evaluation, but, given the importance and level of effort invested in developing the realist synthesis framework, this is described in more detail in this section.

Several evaluation questions required the CP3 MTE to rely on realist synthesis[44] principles to understand why and how an intervention is operating.[45] The use of principles of realist synthesis was appropriate as the MTE recognised that the context where individual investments are operating makes important differences to the outcomes and that no programme works everywhere, for everyone. The approach used explored why interventions may or may not work, in what contexts and for whom:[46] considering how contextual factors, including those at the investment level and at the global level, have shaped and influenced any outcomes or changes observed. This approach was appropriate for CP3 as it is best

[44] The principles applied drew on the approach outlined by many sources below. The primary ambition of our synthesis principles focused on the importance of explanation building, assessing if the evidence collected contributes to these theories, what refinements to these theories are needed and how context influences any changes observed. With the resources available for this evaluation and the other evaluation activities planned, the evaluation did not apply a purist evaluation approach, but recognised the benefits this approach brought to answering specific questions.

[45] Realist methods seek to understand the mechanism that causes change and combine both quantitative approaches (to explain the context and outcomes) and qualitative approaches to explain the 'generative mechanism', that is, the reasoning of the actors that lead to the change occurring. Realist analysis approaches include QCA, process tracing and comparative analysis.

[46] Rycroft-Malone et al. (2012) Realist synthesis: illustrating the method for implementation research. Implementation Science, 7:33

applied when evaluating new initiatives and allows for exploration into how and why changes have occurred in order to generate learning for new contexts or to support adaptive management.[47]

To support our analysis, the M&E Agents condensed the numerous hypotheses that are captured within the programme ToC into a small set of ICMO configurations which were tested against the evidence in order to respond to evaluation questions. Relevant evidence emerging from the different analysis undertaken, including the contribution analysis, additionality assessment and case studies was coded against these ICMOs. In our evaluation report, some of the explanatory findings (which describes how or why a programme outcome occurred) has been derived from our ICMO analysis.

Realist synthesis theoretical framework

We established a process for important programme stakeholders (in this instance identified as BEIS and DFID) to play a role in establishing the framework for analysis and in assessing the relative importance of different interpretations alongside us. To do this for some evaluation questions, we used a realist synthesis approach that used an analysis of intervention, context, mechanism, outcome (ICMO) configurations to draw conclusions about the relative importance of different factors in producing the observed results. These configurations aim to separate out those factors which are inherent in (or under the control of) the programme as intervention factors or interventions (I), from other contextual factors (C) or mechanisms (M) that are not, to give the formulation I+C+M=O (ICMOs).

There are two levels of interpretative work involved in formulating ICMOs. First, it is acknowledged that there are many steps within the overall programme theory of change and numerous contextual factors and assumptions underlying each one. This means that identifying ICMOs at the right point in the theory of change and at the right level of detail to help with future decision-making is key. The evaluation therefore aimed to identify a subset of the most important mechanisms for the purposes of our evaluation questions in conjunction with programme stakeholders. The initial ICMOs were reviewed with stakeholders in DfID and BEIS to ensure consensus between HMG and CPI/LTS.

Once data was collected, it was coded and organised in relation to the various evaluation questions and ICMOs. More information on the outcome of this coding is described below. The M&E agents had an internal meeting to support sense-making and interpretation of findings following the data collection. This was followed up with a workshop with HMG stakeholders prior to the finalisation of the evaluation findings during a workshop in September. During these processes the ICMOs were re-visited and stakeholders consulted on the interpretation of the available data in order to reach a reasonable judgement about the most useful findings. Areas where the ICMOs could be formally changed have not been formally identified and agreed, but would be for future evaluation activities and can be captured and shared with stakeholders if there is interest.

The iterative process that is described above related to ICMO formulation and revisiting is presented in Figure 15 below. The subsequent table includes the initial ICMO configurations that were used to guide the synthesis process at different levels.

[47] Westhorp, G. (2014) 'Realist impact evaluation: an introduction'. Methods Lab. London: Overseas Development Institute.

Figure 15 ICMO Development Cycle

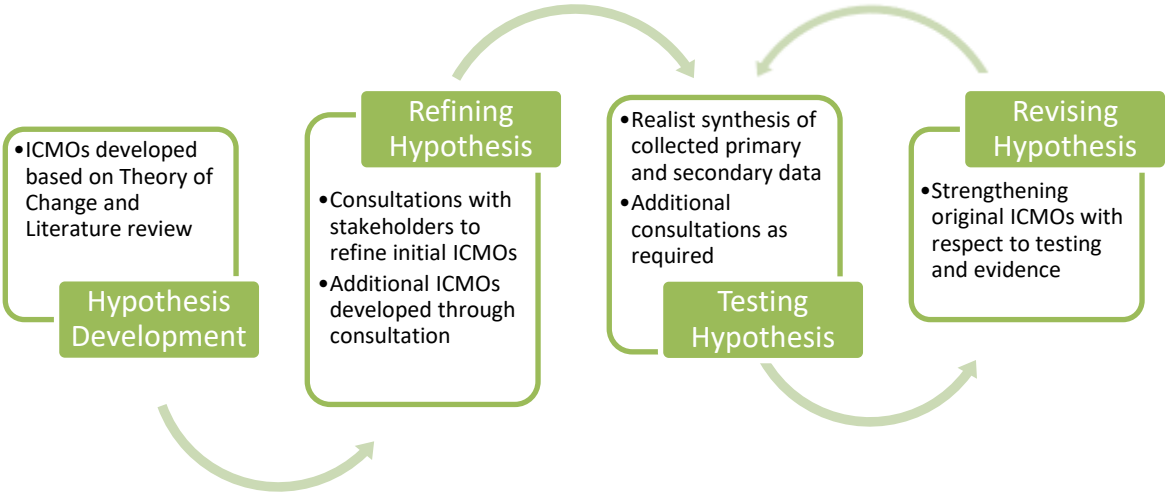


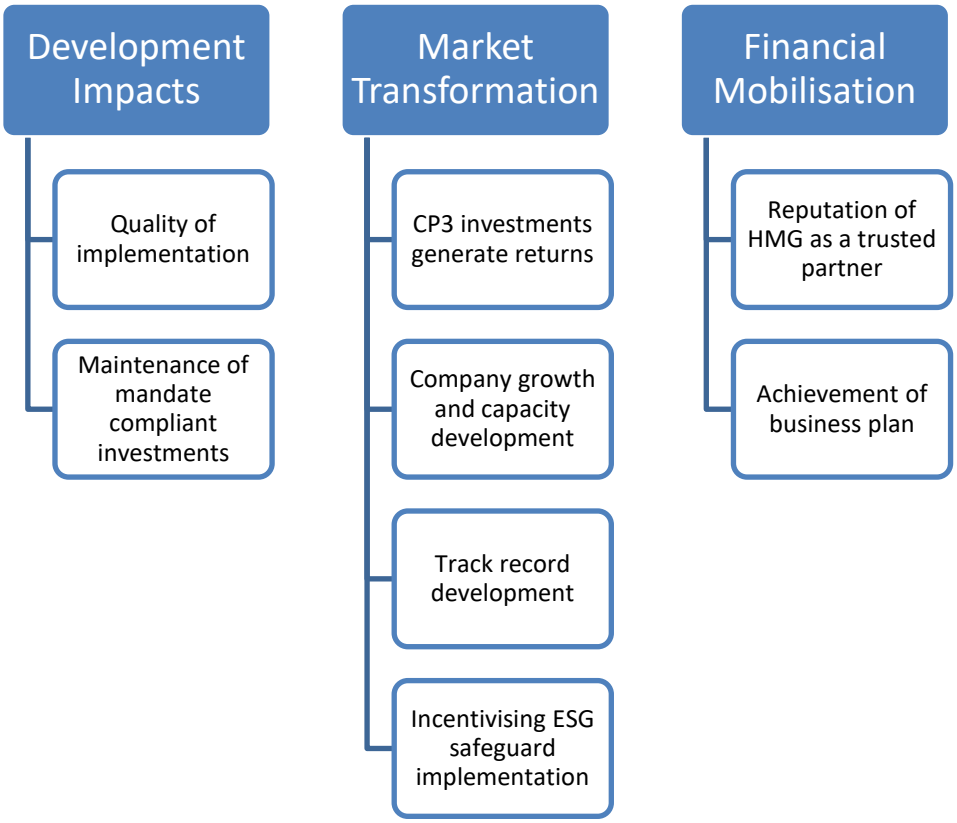
Table 14 ICMO Statements

Title	Intervention	Context	Mechanism	Outcome
Demonstration Effect	By investing public money at an early stage in private equity funds that invest in low carbon and climate resilience projects in emerging markets and low-income country contexts…	…in a context where there are sufficient investment LCCR opportunities but where private investment is insufficient…	…CP3 investee funds and companies achieve commercial returns…	…leading new investors to perceive risk and returns in this sector differently, leading to improved risk and return perceptions and increased investment in LCCR outside the CP3 investments.
Anchor Effect	By acting as an anchor investor providing public funds at scale and providing management and governance…	…where there was a lack of other investors willing to act as anchor…	…public and private investors see UK Govt as a trusted investor and reassess risk and reward…	…and invest in these funds, supporting them to leverage additional finance.
Strategic Support	By providing non-financial support to companies via private equity fund managers…	…in a context where the general investment environment is positive…	…fund managers help companies achieve their business plan…	…resulting in commercial success and increased return for investors.
Investment Mandate	By creating a strong investment mandate that is well communicated to the fund managers through contractual arrangements…	…where there are relevant opportunities that meet the mandate and ACP and CF understand and can act on the mandate…	…so that fund managers select and maintain investments that are compliant…	…resulting in investments that generate development impacts that are aligned with CP3 outcomes.

Title	Intervention	Context	Mechanism	Outcome
SCAF	By providing enterprise development support and seed capital financing to early stage clean energy projects and companies…	…in a context where these projects are financially viable, operate in a supportive enabling environment and understand the SCAF investment standard requirements…	…SCAF-supported companies are able to develop in a commercially sustainable manner (undertake feasibility studies, demonstrate their commercial viability, ESG compliance, etc.)…	…and as a result access conventional finance to reach financial close and flowback the initial SCAF financial support.
Track Record	By investing in first-time LCCR fund managers (first time LCCR investors or existing LCCR investors moving into new markets)…	…in a context where they do not have previous track record (in either sector/country)…	…the fund managers are able to develop their capacity to research and invest in LCCR opportunities in a financially secure and supportive environment…	…allowing them to demonstrate their track record and raise additional private financing.
ESG	By providing capital through multilateral climate funds with strong governance…	…in a context where ESG safeguards are beneficial to funds and investors understand the value of ESG safeguards but do not have experience or incentives to invest in compliance…	…CP3 incentivised the development of systems to apply ESG safeguards across the funds' investments…	…making them more attractive to outside investors.
Results	Funds invest in projects meeting HMG's investment mandates…	…other investors contribute sufficient resources to allow the project to reach financial close…	…projects are implemented according to agreed timeframes to appropriate technical standards…	…generating the envisaged results, including finance leveraged and development and environmental benefits (GHG emissions reductions, MW installed).

The primary focus of the ICMO statements was to provide a framework by which to explore the CP3 mechanisms and explore their contribution to any changes observed. These mechanisms can broadly be categorised as seeking to achieve: development impacts; market transformation; and financial mobilisation. The below indicates which impact each mechanism relates to, although it should be noted that many of the mechanisms are cross cutting and may contribute to more than one impact.

Figure 16 ICMO Mechanisms by Intended Outcomes



Some of the ICMO statements were directly linked to evaluation questions, where others looked at cross cutting elements of CP3 which were not necessarily linked to a single evaluation question. The objective of the ICMO statements was to provide an alternative way of structuring and framing analysis, and to provide a clear framework against which to collect and code evidence in a manner that supported analysis and generation of findings from the body of evidence collected.

Figure 17 Linkages between ICMOs and Evaluation Questions

Demonstration Effect	• EQ2, EQ3, EQ4, EQ6
Anchor Effect	• EQ3, EQ6
Strategic Support	• EQ4, EQ7
Investment Mandate	• EQ1
SCAF	• EQ6, EQ7
Track Record	• EQ2, EQ4, EQ7
ESG	• EQ1, EQ6, EQ7
Results	• EQ2, EQ3

Reaching Conclusions

Our conclusions synthesise across findings and sources to generate specific recommendations. In utilising multiple data sources in order to reach conclusions, the following techniques were utilized:[48]

- juxtaposing (for instance, when one data source provides the data to make sense of the outcome pattern noted in another)
- reconciling (identifying differences which explain apparently contradictory sets of findings)
- adjudicating between data sources (e.g. quality and source of data)
- consolidating (multi-faceted explanations)
- situating (understanding where context has played a role in affecting results)

Using these techniques, we were able to demonstrate the evidence supporting our findings, identify where there was dissonant evidence and explore what why evidence was conflicting. Generally, we found that when evidence was conflicting, it was frequently because of the small sample of evidence and the maturity of the programme, so there was not yet sufficient evidence from across the portfolio to reach a conclusion. The synthesis approach was structured to ensure internal validity (credibility and transferability), accuracy and reliability. Our quality assurance processes (described in Section 0 below) also tested for potential evaluator bias and the evaluation outputs are all transparent about limitations in data availability and reliability to ensure credibility.

Sampling approach

Interviews

In sampling interviewees, for most stakeholder groups within the CP3 ecosystem, the aim was to reach either all or as many representatives of the group as could be reached (in the case of the CF and ACP LPs or the programme team at DfID and BEIS, for example) or a purposive sample selected primarily for their case study potential as discussed below (for example, the sub-fund managers or investment level stakeholders).

For market actors, it was only feasible to interview a selection of the actors operating in CP3 markets where a contribution or case study was being conducted. When such actors were selected, the M&E agents sought to engage as wide a sample as possible, engaging with stakeholders in the public, private and independent sectors. Of the 12 engaged with for the El Salvador contribution study, four were government representatives, three were investors and distributers, and five were market and technical experts.

In total, the M&E Agents interviewed over 40 relevant stakeholders, both within and out with the CP3 ecosystem. A summary of the stakeholders interviewed is provided in the table below.

Table 15 Stakeholders Interviewed for the MTE

Stakeholder Group	Number Sought	Number Achieved	Engagement method
HMG representatives (past and present)	12	12	Semi-structured interviews conducted remotely and face-to-face meetings.

[48] Inspired by Michaelis, C. and Westhorp, G., 2016 International Climate Fund Evaluation Evidence Framework. Final draft. September 2016. Itad.

CP3 Fund Managers (including CF, ACP, SCAF and sub-funds)	16	11	Semi-structured interviews conducted remotely.
CF and ACP Limited Partners	10	5	Semi-structured interviews conducted remotely.
Market Participants	12	12 (El Salvador)	Semi-structured interviews conducted remotely and face-to-face meetings.
Comparators	3	3	Semi-structured interviews conducted remotely and face-to-face meetings.
Additional Stakeholders	N/A	1	Semi-structured interview conducted remotely.

The M&E agents initially thought to interview all CP3 fund managers but, as the evaluation progressed, the M&E agents refined their approach and targeted specific fund managers for different evaluation activities to maximise the impact of responses and minimise potential time burdens. For example, in the case of the contribution analysis study, the M&E agents sought to speak to the fund managers of LRIF, Armstrong and CF, each of which played a critical role in a contribution hypothesis. In contrast, for the financial leverage study engagement was sought from all fund managers to provide the required information, but the M&E agents chose not to conduct full interviews with each fund manager for this information. In several cases, the M&E agents spoke to multiple members of the fund management team for a given fund to ensure specific expertise was accessed to provide nuance and context to relevant findings.

The M&E agents also sought to interview all Limited Partners of the CF and ACP. In most cases, once introductions were made, the LPs were happy to engage with the evaluation. However, in some cases, this was not so and either the LPs themselves chose not to engage or the CP3 funds advised limited engagement. In order to respect the fund relationships with their LPs, the M&E agents chose not to push at this stage, unless it was felt that a particular LP held critical information. When using a gatekeeper for access to key interview respondents (such as CF and ACP in this case) there is a risk of selection bias. In order to minimise this risk, the M&E agents triangulated all interview data through the ICMO coding where interviews were generally given a smaller score (for plausible information rather than verifiable) to ensure they weren't over-weighted. The M&E agents also reviewed and coded previous interviews from case studies and prior M&E exercises for additional context and diversity of opinion.

Stakeholder consultation methods

Key considerations for the stakeholder consultations were:

- **Interview structure:** all interviews conducted were semi-structured to facilitate free dialogue and potentially generate information additional to that which the M&E Agents initially sought.
- **Interviewers**: all interviews (as well as the survey and workshops) were conducted by core team members who were skilled and experienced in data collection. Interviewers typically worked in pairs or groups, although some solo interviews were carried out.
- **Invitation to interview**: all interviewees were contacted and invited to interview by the evaluators directly or through one of the focal points within the CP3 ecosystem (for example, the CF and ACP fund managers).

- **Method of recording**: for interviews with comparators or market interviews in country, notes were taken by the interviewers. These were not verified with the interviewees, but we are confident of the accuracy of these. In-country interviews were conducted by a single team member so cross-checking was not possible – this was a consideration in coding and assessing strength of evidence for these notes. The majority of the remaining interviews were audio-recorded and transcribed by core team members, in part to ensure accuracy and in part to manage challenges posed by time-zone differences across the programme, ensuring those who could not join every interview could still hear the first-hand responses.
- **Interview consistency**: An interview script was developed which included a standardized introductory script used for all interviews, and generally relied upon a semi-structured interview guide categorised by topic. The questions were updated to suit the role of the interviewee but retained a common core purpose across interviews. Not all interviewees were asked all questions.
- **Respondent consent**: Consent to record the interviews and to store the respondent's contact details was sought from all interviewees and freely given.
- **Respondent anonymity**: Respondents have been anonymised, as far as possible.

Selection of case studies

The evaluation relies on a sampling approach to select the units of analysis for the contribution analysis and financial leverage case study. Methodological information on these assessments, including on the sampling approach applied are included in full in the individual reports. In brief, the M&E team conducted three investment studies, one financial leverage study and one additionality study. The two thematic studies were selected to meet specific evaluation objectives around the mobilisation and additionality of finance within the CP3 ecosystem. The investment level case studies were selected to be representative, seeking to cover a range of fund managers, geographies, technologies and development impacts.

Data collection methods

Document review

In terms of documentation review, the M&E Agents reviewed, analysed and coded: documentation for each of the three top level investments including the legal agreements between the funds and HMG and their own internal policies (ACP, CF and SCAF II); the annual and biannual reports prepared by the M&E Agents in the first four years of the evaluation; the quarterly reporting prepared by CF and ACP; the annual reporting from all three top level investments; documentation on the sub-funds selected for case studies; project level documentation including ESG/ESMS policies, annual reporting, and investment agreements where available; the four completed investment level case studies undertaken by the M&E Agent; and additional legal and policy documents relevant to the operation of CP3 in the wider investment market. Document data sources included:

Table 16 Data Sources for Document Review

Primary Data Sources	Secondary Data Sources
- Financial statements from CF and ACP - Programme operations documents from CF, ACP and SCAF - Data requests made to relevant funds - Investment reports - Greenhouse gas (GHG) emissions impact reporting - Market studies - Quarterly financial reports from funds	- EMPEA Survey on investor attitudes - IRENA Global Landscape of Renewable Energy Finance - IESE VC/PE Index - Cambridge Associates Ex US PE & VC Index and Selected Benchmark Statistics - Climatescope - RISE - CPI Global Landscape of Climate Finance - RECAI

- Reporting on fundraising by CP3 funds	- BNEF database - Public information regarding the venture, the financial transaction, and the context environment

Field visits

As part of the contribution case study, a market analysis of the El Salvadoran solar market was conducted. This required a field trip for a consultant working with the M&E Agents in order to conduct face-to-face interviews, engage with local experts and consultants, and access materials unavailable online or publicly. The consultant spent a week in El Salvador and was able to interview key figures in the public sector, at various levels of government, within the private sector, and a range of independent development consultants working in the sector. The interviews were then analysed and synthesised to provide a market analysis for use in both the contribution analysis and in the wider MTE as a data source.

In addition, in order to obtain quality data from suitable CP3 comparators, a field visit was conducted to the GEEREF head office in Luxembourg. This enabled our evaluator to obtain data through semi-structured, face-to-face interviews and also through informal discussions.

Data management, coding and thematic synthesis

Raw data from all interviews and document review has been organised in an Excel coding file structured according to the realist synthesis ICMO statements. All reports and information collected since the beginning of the evaluation programme have also been coded. This has enabled a clear and transparent framework for aggregation, thematic synthesis and descriptive analysis.

The agreed ICMOs largely focused on the strength of evidence of programme level theory and were worded in a way to enable synthesis from across the portfolio as they were based on overarching programme theories instead of being directly linked to evaluation questions or tied to specific investments/interventions. In many instances the ICMO statement synthesised information and in coding the data, each ICMO statement was reviewed and divided into sub-statements where appropriate: for example, when an intervention comprised two distinct actions or where multiple outcomes were expected from the same mechanism. This ensured that evidence was gathered for each discrete claim made within the ICMO hypotheses provided a more robust evidence base. The sub-statements were further broken down into component definitions, to ensure consistency in the coding process across all statements, but coding was not done at this component level.

For example, with the first ICMO, several of the hypothesis statements contained several independent components for which evidence could be independently collected. The context statement “in a context where there are sufficient investment LCCR opportunities but where private investment is insufficient” contained two distinct claims, both of which needed to be evidenced. As such, when coding data this context statement was split into two individual sub-statements with data collected against both. In order to assure consistency across the M&E agents, these statements were further broken down to definition components per the below. Coding wasn’t explicitly structured around these definition components, rather these were used to guide coding and ensure all team members maintained a shared understanding of the statements.

Table 17 Sample ICMO Sub-Statement Components

Code	Sub-Statement	Components		
C1a	…in a context where there are sufficient investment LCCR opportunities…	The selected markets have other opportunities in LCCR investments	The markets have sufficient institutional structure to support other investments	The markets have sufficient regulatory and governance structure to support other investments

Code	Sub-Statement	Components		
C1b	…but where private investment is insufficient...	PE capital is limited in the market	Similar LCCR opportunities are not being funded	The financial structure (institutional/regulatory) is limited

When coding evidence against the ICMOs, all pieces of evidence (including secondary data and evidence collected via stakeholder interviews) were assessed for the "strength of evidence" as per the categories listed in the rubric below.

Table 18 Strength of Evidence Grading

"Strength of Evidence" Assessment for each piece of evidence collected		
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 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.

Each piece of evidence was then scored based on how convincingly the evidence supported a particular ICMO statement, with 3 being the highest, and -3 being the lowest (evidence which strongly contradicts the ICMO statement). The score of verifiable evidence was then doubled to recognize the strength of the evidence, helping to minimize bias. The table below demonstrates how two pieces of evidence were coded to support analysis of the C1b context statement above ("but where private investment is insufficient").

Table 19 Example of Coding Score Multipliers

Evidence	Coding Score	Strength of Evidence	Final Score with SoE Multiplier
Interviewee evidence that commercial banks in Thailand are highly active and competitive in RE sector.	-3, strongly contradicts hypothesis statement (by implying private investment is highly competitive in Thailand)	Plausible (evidence derived from interviewee perceptions)	-3
Historical market data showing the investment committed to CP3 countries over a six year period	3, strongly supports hypothesis statement (as investment was shown to be low)	Verifiable (evidence is taken from financial records and reporting)	6

In terms of saturation, the evaluation sought to reach the point where no new relevant information could be found. However, in practice the evaluation had to deal with resource constraints associated with evidence saturation, and faced small sample sizes and challenges accessing key stakeholders. As such, the evaluation aimed to capture the saturation of evidence to support each ICMO. We developed clear

saturation criteria and applied them to our ICMOs and our findings, though there were instances where the finding was presented even though the sample of data was quite small, but we had confidence in the finding. For example, there were relatively few unique data points regarding the flow back of SCAF funding (as so far only the first time fund manager Zoscales) but almost all data collected was verifiable and strongly supported the Outcome statement ("[SCAF partners] flowback the initial SCAF financial support (O5b)"). As such, that finding was presented even though the evidence saturation was quite low because the strength of the evidence collected gave sufficient confidence in our findings. Overall, more than 530 data points were coded, resulting in over 1,600 scores.

Based on the evidence coded, aggregate scores were generated for each component, giving the evaluators a sense of the strength of evidence for each component, which has supported the realist analysis conducted by the M&E agents, exploring which mechanisms, contexts and interventions have led to the observed outcomes. The M&E Agents have summarised the findings of the coding in the table below, with the following colours indicating the level of confidence the M&E agents have in the component holding true:

- **Red**: Inconclusive evidence to support the statement;
- **Amber**: Moderately supported, likely accurate;
- **Green**: Strongly supported, very likely accurate.

The following table restates the ICMOs marking out the sub-statements used for coding. The table includes this assessment, as well as a count of the total evidence data points collected for that sub-statement. A single data point could include an interview quote, a written response to a questionnaire, a section or quote from a report, an analysis of financial figures, records of holdings, extracts from case studies, and findings from literature or discreet analyses such as the contribution analysis.

Table 20 ICMO Coding Summary

ICMO	ICMO Sub-statement	Scoring Ratio	Data Points
ICMO1 (Demonstration Effect): By investing public money at an early stage (I1a) in private equity funds that invest in low carbon and climate resilience projects (I1b) in emerging markets and low income country contexts (I1c), in a context where there are sufficient investment LCCR opportunities (C1a) but where private investment is insufficient, (C1b), CP3 investee funds and companies achieve commercial returns (M1) leading potential/new investors to perceive risk and returns in this sector differently (O1a), leading to improved risk and return perceptions (O1b) and increased investment in LCCR beyond the CP3 investments (O1c).	I1a		30
	I1b		57
	I1c		75
	C1a		35
	C1b		41
	M1		46
	O1a		46
	O1b		32
	O1c		42
ICMO (Anchor Effect): By acting as an anchor investor (I2a) providing public funds at scale (I2b) and providing management and governance (I2c) where there was a lack of other investors willing to act as anchor (C2) public and private investors see UK Govt as a trusted investor (M2a) and reassess risk and reward (M2b), and invest in these funds (O2a), supporting them leverage additional finance (O2b).	I2a		47
	I2b		18
	I2c		18
	C2		28
	M2a		46
	M2b		49
	O2a		51
	O2b		56
ICMO (Strategic support) By providing non-financial (management/ other) support to companies via private equity fund managers (I3) in a context where the general investment	I3		43
	C3		33
	M3		38

ICMO	ICMO Sub-statement	Scoring Ratio	Data Points
environment is positive (C3) fund managers help companies achieve their business plan (M3) resulting in commercial success and increased return for investors (O3).	O3		21
ICMO (Investment Mandate): By creating a strong investment mandate (I4a) that is well communicated to the fund managers through contractual arrangements (I4b), where there are relevant opportunities that meet the mandate (C4a) and ACP and CF understand and can act on the mandate (C4b) so that fund managers select and maintain investments that are compliant (M4), resulting in investments that generate development impacts that are aligned with CP3 outcomes (GHG emissions, jobs, energy efficiency gains, renewable energy deployed, adaptation benefits) (LCCR) (O4) .	I4a		38
	I4b		32
	C4a		35
	C4b		39
	M4		45
	O4		77
ICMO (SCAF): By providing enterprise development support (I5a) and seed capital financing (I5b) to early stage clean energy projects and companies (I5c), in a context where these projects are financially viable (C5a), operate in a supportive enabling environment (C5b) and understand the SCAF investment standard requirements (C5c), SCAF-supported companies are able to develop in a commercially sustainable manner (undertake feasibility studies, demonstrate their commercial viability, ESG compliance, etc.) (M5) and as a result access conventional finance to reach financial close (O5a) and flowback the initial SCAF financial support (O5b).	I5a		18
	I5b		23
	I5c		32
	C5a		8
	C5b		21
	C5c		10
	M5		42
	O5a		22
	O5b		8
ICMO (Track Record): By investing in first-time LCCR fund managers (first time LCCR investors/or existing LCCR investors moving into new markets) (I6) in a context where they do not have previous track record (in either sector/country) (C6) the fund managers are able to develop their capacity to research and invest in LCCR opportunities (M6a) in a financially secure and supportive environment (M6b) allowing them to demonstrate their track record (O6a) and raise additional private financing (O6b).	I6		26
	C6		20
	M6a		19
	M6b		18
	O6a		12
	O6b		24
ICMO (ESG): By providing capital through multilateral climate funds with strong governance (I7), in a context where ESG safeguards are beneficial to funds (C7a) and investors understand the value of ESG safeguards but do not have experience or incentives to invest in compliance (C7b), CP3 incentivised the development of systems to apply ESG safeguards across the funds' investments (M7) making them more attractive to outside investors (O7).	I7		51
	C7a		19
	C7b		18
	M7		50
	O7		13
ICMO (Results): Funds invest in projects meeting HMG's investment mandates (I8), other investors contribute sufficient resources to allow the project to reach financial close (C8), projects are implemented according to agreed timeframes (M8a) to appropriate technical standards (M8b) generating the envisaged results, including finance leveraged (O8a) and development and environmental benefits (GHG emissions reductions, MW installed) (O8b)	I8		56
	C8a		15
	M8a		15
	M8b		26
	O8a		42
	O8b		71

Quality Assurance

A dedicated quality assurance team supported this evaluation with two external experts who reviewed specific aspects of this evaluation, including data collection instruments for technical accuracy and quality. Other team members played an important role in quality assurance, including:

1. The M&E specialist, who managed methodological rigour, quality and match to client needs;
2. The Project Manager, who managed methodological rigour and technical accuracy;
3. External CPI and LTS experts who proofread the language and checked for formatting and presentation.

How issues of bias were considered

Bias in data derived from any human source is inevitable. For example, in this evaluation, every stakeholder's view on CP3's impact was influenced by the stakeholder's own experience of the market and the investment landscape which they are familiar with. For this reason, to support robust analysis, all interviewers were asked to annotate their interview transcripts and to consider the credibility of the interviewee and factors influencing their responses. To counter any bias within the M&E agent team itself, we held regular internal meetings and involved all team members in the development of conclusions and recommendations, which were also independently reviewed by key programme stakeholders. We have consciously taken bias and representation into account in analysing our findings and developing conclusions.

As noted above, when coding against the ICMO statements, verifiable data was given a coding score multiplier to recognize the strength of the evidence. In an evaluation where a significant amount of qualitative, plausible evidence was gathered, this helped ensure that stronger confirmed data was given a higher weighting in determining findings, thus minimizing the bias potentially presented by reliance on qualitative opinion-based data.

Consideration of cross cutting issues such as gender, human rights etc

Gender

CP3 Funds invest based on commercial considerations and do not specifically target investments that have gender benefits and an assessment of gender has not been conducted. The M&E agents are unable to provide any gender relevant indicators (for example jobs) as this was not provided by the fund managers. A recommendation for further gender disaggregation of results has been included. The M&E agents did not specifically seek to capture evidence of gender benefits and very limited evidence was collected. While the ESG systems applied by the programme ensure that social impacts are considered in investment decisions, this was not reviewed or assessed in this MTE, but could be explored in future evaluations.

Consideration of DFID's commitment to human rights, as well as poverty, environment, anti-corruption

Ultimately CP3 intends to enable developing countries to pursue a climate resilient, low carbon development path which results in growth, poverty reduction, and climate change mitigation. CP3 is not a directly targeted mechanism and it is therefore not realistic to measure the extent to which CP3 has reached vulnerable groups or addressed issues of HIV/AIDS, human rights, power relations, or anti-corruption.

The impact level assumptions in the theory of change are medium to high risk assumptions. The assumptions that CP3 will catalyse sufficient growth in LCCR investment to influence countries' development paths and that this growth will have positive distributional benefits will not be tested during the MTE. However, the M&E agents have collected evidence on the programme's development impacts in the short-term, focusing particularly on increased flow of finance to low income countries, job creation, and energy installation.

The mechanism by which CP3 will contribute to poverty reduction is by creating demonstration effects which increase the flows of private finance to LCCR investments in low and middle-income countries. The following activities have been tracked by the M&E agents as part of annual results reporting (available in separate reports) to demonstrate whether CP3's contribution to poverty reduction is occurring as expected: percent of CP3 investments applying ESG safeguards; volume of CP3 investments disaggregated by region and by low and middle-income countries; number of first-time fund managers supported by SCAF; number of jobs created; and MW of renewable electricity capacity installed.

The extent of which CP3 has supported capacity building was explored primarily through an assessment of SCAF and the way in which SCAF has increased the capacity of first-time fund managers.

Exploration of the Paris Principles

The Paris Declaration on Aid Effectiveness aims to improve the quality of aid and its impact on development. It outlines five fundamental principles: ownership, alignment, harmonisation, results, and mutual accountability. The MTE did not explore these issues in depth as there are particular challenges in the commercial nature of the program and the fact that decisions on investments are made by fund managers and not by aid providers. Box 3 describes the assessment of the programme against the Paris Principle.

Limitations to the overall assessment

Due to the nature of the CP3 programme and the complex environment in which it operates, there were a number of limitations to data collection and analysis.

Ambitious evaluation design with a deadline

This evaluation was designed to gather as much in-depth and triangulated information as was feasible in the timeframe agreed in the approach paper. During data collection, it was identified that not all sub-funds were willing to provide the information provided. There were also some delays in responses to data requests[49]. To the extent practical, data collection strands were conducted in parallel and/or overlapping to mitigate the impact of these dynamics.

However, in spite of these schedule challenges, the M&E agents were able to obtain feedback from a variety of stakeholders representing all targeted stakeholder groups, as discussed above. The draft final report was completed on schedule as agreed. The delays and tight deadlines did not affect quality, as we were still able to follow our quality assurance processes.

Availability of data

Data collection was somewhat restricted by the availability of data, both on a programme level and a wider market level. Much of the data collected or sought was commercially sensitive due to its financial nature and was only available in a limited format, if at all. In particular, when looking for data on investments and market decisions outside CP3's influence, such as policy developments or actions of other private sector players, there were often barriers or restrictions limiting the available data and evidence. Even within CP3's portfolio there were some data limitations. The FoF and sub-funds all have multiple investors, the details of which were commercially sensitive and thus unavailable. Where it was not possible to collect sufficient data at this stage, this has been clearly outlined in relevant findings (for example, lack of data on achievement of long term impacts due to the age of the programmes). In other cases, the team worked hard to gather alternative sources of data (such as proxy indicators and benchmarks) to support triangulation of findings where appropriate.

Access to stakeholders for interview posed a particular challenge at the start of the MTE, with fund managers initially seeming hesitant to arrange interviews with their investors. However, in almost all cases, once an introduction was made the investors were more than happy to engage with the evaluation, often speaking candidly to their investment experience.

In emerging markets without robust financial systems, data collection was further limited by lack of historic or accurate data. The use of market experts or core market stakeholders where available, such as in El Salvador, improved the quality and availability of this data, as did the direct engagement activities as part of the field work.

Much of the data which could be used to effectively assess or evaluate the various programme outcomes is still emerging as the programme matures. For example, only a few projects have reached financial close providing insufficient data to draw conclusions from. Likewise, few projects have a realized IRR and discussion or assessment of project value needed to be predictive rather than

[49] Generally internal stakeholders were responsive and willing to have us observe meetings and share relevant documentation, though not all stakeholder responded to emails nor prompting.

confirmed. Certain outcomes prescribe such financial factors as key indicators of success and thus the evaluation of these outcomes at the mid-term stage was limited, as noted in the findings above.

Case study limitations

The CP3 programme has a reasonably large and diverse portfolio, spanning dozens of countries and sectors. As such, not every investment, holding or sub-fund could be involved in a case study or explored in sufficient depth to provide evidence for this evaluation. The sampling strategy has been purposive (that is, focused on ensuring specific characteristics under investigation are represented within the sample) but systematic in terms of selection, and thoroughly documented in order to mitigate risks of sampling bias and maximise learning.

Further, while the M&E agents have had good experience with the application of venture criteria 'crowded-in private finance' during the application of case studies, it will be more difficult to gauge investors' perception of CP3 as fund managers that are part of the programme might be biased towards it. However, the M&E agents have aimed to corroborate CP3 portfolio fund managers' observations with experts and investors outside the programme as well as literature.

Tendency for positivity bias in stakeholder interviews

Bias in data derived from human sources is inevitable. Sampling of stakeholders was purposive, systematic and based on their willingness to speak to the M&E agents. For example, the M&E agents tried to interview all stakeholders who were LPs within ACP and CF, but not all LPs responded. The M&E agents worked with CF, ACP and HMG to gain introductions to LPs, seeking to legitimise and strengthen interview requests which proved successful in some cases. It is not fully understood why the M&E agents received no response from some LPs, however this was anticipated in the approach paper given the commercial sensitivity of the programme and the unfamiliarity of the LPs with a monitoring and evaluation team. In addition, willingness to engage may have been affected by ongoing processes behind the scenes, such as internal investment decisions being made by LPs which the M&E agents were not privy to. This process was thoroughly documented.

Interviews were guided by a questioning structure and protocol that determined how the interview should be conducted, specific questions to ask, confidentiality information to ensure participants felt they could speak freely and ways in which the response was recorded. To support analysis, interview transcripts were annotated and factors that influenced responses were considered.

Level of implementation of many of the investments

Some CP3 investments are operational, whereas others are still in development, with very few reaching financial close. The MTE focused data collection where evidence was available. This means the evaluation could not capture results from the entire programme. However, efforts were made to ensure selection of stakeholders, cases and analysis was representative and captured evidence emerging from ACP.

Alignment with the Terms of Reference

Overall, the evaluation aligned well with the ToR, delivering activities and evaluation products as expected. However, the evaluation itself was originally expected to be delivered in 2017. Due to the maturity of the programme and the funds themselves, there was insufficient data available to conduct a MTE. As such, DfID, BEIS and the M&E Agents agreed to delay the evaluation by one year, to give the funds a chance to mature, to deploy more finance and to provide more time for development impacts and commercial results to emerge.

ANNEX 5 - ACP INVESTMENT CRITERIA

TARGET SECTORS AND PROHIBITED INVESTMENT ACTIVITIES

Target sectors include but are not limited to the following illustrative list:

Renewable Energy (including both grid-connected and off-grid systems)

- Wind power
- Solar energy, including photovoltaic ("PV") and solar thermal (in all forms)
- Hydroelectric power, run of the river
- Sustainable biomass
- Sustainable bio-fuels
- Geothermal
- Waste-to-energy
- Hybrid power systems (including biomass / fossil fuel co-firing systems)

Energy and Resource Efficiency

- Energy service companies ("ESCOs")
- Efficiency improvements to existing systems, including:
- Efficient lighting
- Efficient heating and cooling (including solar water heating)
- Cogeneration or combined heat and power ("CHP") implementations
- Efficiency improvements to existing energy generation, transmission, and distribution systems
- Standards-based Green Buildings (new construction and renovations) and Green Building specialized property management companies
- Transportation improvements (limited to public transport, hybrid / electric vehicles)

Renewable Energy and Energy / Resource Efficiency Supply Chains

- Wind turbine manufacturing and assembly
- PV and solar thermal manufacturing and assembly
- Manufacturing of specialized equipment and components for renewable energy and energy / resource efficiency products (including specialized software solutions)
- Manufacturing of energy / resource management, monitoring, and control equipment
- Manufacturing and / or distribution of hybrid / electric vehicles and specialized components
- Manufacturing and / or distribution of the highest available energy and resource-efficient products (e.g., micro-irrigation, low-rolling resistance tires, lighting devices)
- New materials to improve energy efficiency such as nanotechnology, bio-materials, and bio-chemicals
- Sustainable Agriculture, including fisheries and forestry
- Resource and land-use management technologies, companies, and projects
- Water, wastewater, and wastewater treatment (including conservation efficiency)
- Environmental services and recycling
- Greenhouse gas-reducing waste management (including methane capture)

Others

- Fuel-cells

- Fuel-switching to renewable fuels at existing facilities

- Manufacturing and / or distribution of advanced energy storage solutions (excluding conventional batteries)

Requirements for Target Sectors and for Direct / Co-Investments

- For the financing of energy efficient investments, (i) the net improvement must be more than 15%, or (ii) the net reduction must be more than 25,000 tonnes of CO_2

- Investments must be prohibited from receiving, or not be expected to receive, revenues from carbon credits through the Clean Development Mechanism defined in the Kyoto Protocol to the United Nations Framework Convention on Climate Change, dated 11 December 1997 (the "Kyoto Protocol") or any other formal carbon market mechanism

- Fleet replacement is, for the avoidance of doubt, not a target sector

Additional Requirement for Direct / Co-Investments

With investments in large hydroelectric projects, the investment must comply with WCD Guidelines. "WCD

Guidelines" shall mean the guidelines for the construction of dams and their associated infrastructure contained in the report of the World Commission on Dams entitled "Dams and their Development: a New Framework for Decision-Making," as amended or restated from time-to-time.

Prohibited Activities

Both Fund Investments and Direct / Co-Investments shall be prohibited from the following:

- Non-renewable fossil fuel power plant construction, extension, or operation

- The financing of a switch from one non-renewable fossil fuel to another non-renewable fossil fuel in standalone grid-connected electricity generation plants, provided that this provision shall not extend to integrated facilities which include a grid-connected fossil fuel plant, the main purpose of which is not electricity generation for sale to the grid

- the production of nitrous oxide or the production of hydrofluorocarbons ("HFCs");

- nuclear energy generation; and

- any activity listed on ADB's Prohibited Investment Activities List (the "PIAL")

Both Fund Investments and Direct / Co-Investments are further prohibited from making an investment that could reasonably be expected, at the time such investment is consummated, to cause a significant negative overall impact (when taking into account the investment size, the investment thesis and/or the investment portfolio of such Investee Fund, in each case, as a whole) on the environment.