

CTI PFAN

Scaling Up Private Sector Finance for Adaptation Projects

Final Technical Report

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(ACCPS)**

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1. Introduction

This report was prepared by Thaven Naidoo, the Africa Adaptation Coordinator for CTI PFAN and Laura Druce, one of the research team members at the Frankfurt School, supported by the Global Coordinator, Peter Storey, as part of the agreed reporting for the IDRC grant number 107351-001. This is the final project technical report and covers the full period of the programme from March 2014 to February 2017.

There have been 4 previous reports presented, as per the contract with IDRC. A fifth report was submitted at the end of the fifth bi-annual programme period, but this report remained in draft form as it was not a part of the contractual obligations. Much of the work covered in this report has been reported on in previous reports.

This report provides a comprehensive overview of the activities over the three years of the programme, a commentary on the lessons learnt and the implications for future development of the adaptation project stream. It also provides a brief overview of follow-up activities. Despite some of the work activities having been covered in previous reports, in this report they are looked at from the perspective of hindsight, to be able to reflect on improvements to the program, and the lessons learnt.

While it was initially planned for the programme to involve only one round of project selection and induction into the development pipeline for investor showcasing, we were ultimately able to include a 2nd Round. In this report where there are often comparisons between the two rounds of selection and the lessons learnt and applied in the different rounds, these two rounds, which culminated in November 2014 and February 2017 respectively are referred to as “1st Round” and “2nd Round.” Also, during 2016 - 17, PFAN transitioned to a new hosting and governance arrangement under the United Nations Industrial Development Organisation (UNIDO) together with the Renewable Energy and Energy Efficiency Partnership (REEEP), with the old structure under the Climate Technology Initiative and ICETT due to terminate on 30.06.2017. For clarity this new organisational set-up is referred to as PFAN 2.0 or new PFAN.

Included in this report is a sub-section on the research component, a report on the research dissemination workshop and some notes on the implications of the research outcomes on future work in the sector.

2. CTI PFAN Adaptation Workstream: Significance and Objectives

By 2010, CTI PFAN had established a successful track record of raising private sector finance for climate change mitigation. Based on that success CTI PFAN was requested to explore the potential of using its successful mitigation methodology to raise private sector finance for climate change adaptation. This exploratory initiative was supported by USAID and began with the development of a background paper, which was deliberated within a facilitated discussion with key stakeholders from both the public and private sector in Nairobi in 2011, and culminated in the production of an strategy for the development and promotion of the role of private sector finance in adaptation projects.

The two important outcomes of this workshop were the finalization of the working definition for adaptation projects and the selection of priority sectors in which PFAN could work.

The definition arrived at was:

“adaptation projects are projects which help reduce the vulnerability of populations, infrastructures, ecosystems, human or natural systems to the current and future impacts of climate change and climate-related risks and which help increase or maintain adaptive capacity and resilience in the targeted regions and countries of project implementation”

The sectors targeted for intervention were:

Ecosystem Services and Forestry	
Agriculture	
Urban Development	Health
Energy & Access to Energy	Water
Microfinance/Insurance	Tourism
Adaptation products and services	

The workshop was followed by a pilot phase in which this hypothesis was explored. The methodology developed for mitigation projects and now modified seemed to work for climate change adaptation projects.

Based on this initial positive experience, CTI PFAN submitted a concept note in October 2012 after a few rounds of discussion, and visited the Centre on December 14, 2012 to discuss the concept note in greater detail. The IDRC evaluation of the proposal identified a need to strengthen the research component - the research questions needed some

refinement and the lead research institution should be selected in advance of IDRC support. A project development grant was issued to address these two matters. CTI PFAN invited five potential institutions (University of Cape Town and University of Stellenbosch from South Africa, Makerere University from Uganda, Edward Mondlane University from Mozambique and the Frankfurt Business School from Germany) to submit a proposal outlining their credentials for the assignment, and detailing their approach to the research. The respondents to this initial request were evaluated by the PFAN team consisting of Thaven Naidoo and Peter Storey, and the evaluation looked at a matrix of issues to determine how well the potential research institutions understood the challenge of responding to the research questions, the scope of the work, the research team and the overall quality of the proposal. From this evaluation, the Frankfurt School was selected as the research team.

IDRC then came on board to provide funding for a 3 year programme to mainstream the PFAN adaptation activity. The funding from IDRC was targeted at augmenting and expand the existing pilot scale activity and establishing whether and under what conditions financing of adaptation related projects could be mainstreamed in the same way as financing for mitigation projects had been. To achieve this, an innovative approach was adopted, whereby the hands-on practical based project identification, development and financing facilitation operations of CTI PFAN were combined with a research component.

Building on the existing CTI PFAN adaptation pilot, network operations were scaled up, focussing especially on increased outreach and project identification and provision of additional technical assistance for project development and financing facilitation.

The Research Component was designed to both feed off the Network Component and to feed into it, instructing and guiding development and refinement of the PFAN methodologies for dealing with adaptation projects. Essentially the network and projects generated a unique stream of raw data and experience for the researchers to analyse and interpret in a way and at a scale that had never been possible before in this field.

Programme activities of both the Network and Research Components were accordingly designed to achieve the following objectives:

- Identify the existing barriers to private sector financing for adaptation related projects;
- Build investors' capacity to better understand and manage the risks implicit in adaptation related projects and facilitate, accelerate and increase the private sector investment to adaptation activities;
- Build capacity of project developers to develop and structure technically and commercially sound "investor ready" adaptation related projects to attract financial support from the investment community;
- Build awareness in public and private sectors to facilitate the identification and development of adaptation related projects which have capability / potential to raise private sector investment and financing; and

- Research and analyse the enabling policy environment to support and sustain private sector involvement in the development, financing and implementation of adaptation related projects and help develop and refine the following outputs:
 - The concept of risk of adaptation projects. The research team found that the risks of adaptation projects are similar to other projects risks, but the risk (at least for some projects) will be simply correlated differently. Therefore in many cases the specificity of adaptation projects might not be visible in the risk types but in the adaptation specific correlation, i.e., negative correlation with respect to certain climate variables. This means, for instance, that the value of non-adaptation projects is decreasing when the effects of climate change increases, as those projects do not directly hedge against the risks of climate change. Adaptation projects are per se a hedge against the risks posed by climate change (see Research Paper 2; and Research Component Progress Report (submitted August 2016).
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 - a project evaluation grid to support CTI PFAN project identification and selection for adaptation related projects. The research component undertook an analysis of the Project Evaluation Sheet used by the network component. A new weighting was proposed (see below). For the full review, please see Research Component Progress Report submitted August 2015.

• Business Case (35%)		
1	Commercial Viability	7%
2	Clear target investors	7%
3	Expected investor appetite	7%
4	Storyline	7%
5	Management readiness of project	7%
Business Plan Readiness (35%)		
6	Financials	7%
7	Risk Analysis	7%
8	Operations and Implementation Plan	7%
9	Market Assessment	7%
10	Overall Impression	7%
Soft Feature (10%)		
11	Professionalism and Presentation of the Proposal	10%
Impact (20%)		
12	Adaptation Showcase	10%
13	Replicability / Scalability	10%
Total		100%

-
- a set of metrics to measure the impact of adaptation projects across a wide range of sectors. As part of the research undertaken by the Research Component a typology of adaptation projects was provided, allowing adaptation projects to be identified and characterised (see Work Package 1).
- policy recommendations for developing country governments in respect of the creation of enabling environments to promote and sustain the development, financing and implementation of adaptation related projects in the private sector. Policy

recommendations can be found in the Research Component Work Package 3 Synthesis and Operationalisation, as well as the Final Summary Paper.

Secondary objectives of the Program activity included raising awareness in both the public and private sectors of the challenges and opportunities presented by adaptation to facilitate the identification and development of adaptation related projects which have the potential to raise private sector investment and financing, thereby reducing pressure on public sector and donor budgets; and promotion of the development of indigenous capacity that helps to facilitate long term sustainability.

Annex 001 – Background paper

Annex 002 – Executive Summary

Annex 003 – Workshop report

3. Adaptation Programme Activities and Methodology

Adaptation to climate change remains a major challenge for many, if not all, developing countries. It is now generally accepted that even the most stringent mitigation efforts will not avoid further impacts of climate change in the next few decades. This makes adaptation essential, particularly in addressing near and medium term impacts.

Even under the most conservative climate change scenarios, the financial resources to address the adaptation challenge are dauntingly large, going well beyond the capacity of available public sector financing. That being the case, private sector financing will be required to play a major role in addressing many of these challenges. Given the scope and areas of adaptation related measures, it remains less clear how private sector funds can be effectively mobilised and channeled. Although daunting, the required financing volumes could on the face of it be managed by the private sector if appropriate mechanisms and channels were available.

This is where it is anticipated that the CTI PFAN Adaptation Stream activity may contribute to a solution and the IDRC funding was expressly designed to support the scaling-up of private financing into adaptation projects (building on a pilot activity commenced with USAID funding), while researching and analysing the various programme activities, the features and characteristics of the projects it supports and the challenges, risks and opportunities faced by them.

To achieve this CTI PFAN used its proven project identification, development and financing facilitation methodology, which had been initiated in 2008 in helping mitigation projects successfully raise private finance. It was envisaged that the methodology could be used to identify, support and raise financing for adaptation projects in Sub-Saharan Africa under a programme funded by IDRC. As a pilot project, the geographic spread needed to be limited so that the project could be managed more effectively, and the PFAN network within SSA is well developed, offering a degree of ease in the management of this new project stream. SSA it is a global focus area requiring adaptation finance

The premise using the mitigation methodology for adaptation financing is that project financing by financial institutions requires that projects be developed to a certain degree of bankability before the institutions would be willing to consider them and for this the support required by the projects is similar, irrespective of whether the projects are mitigation or adaptation.

This methodology, which has been continually refined since the beginning of scale-up operations, is premised on the investment gap which exists between investors (looking for business opportunities) and project developers / entrepreneurs (searching for financing for their ideas).

As elaborated in the Research Component WP 1, most of the research on adaptation to date has focused on public spending on adaptation rather than private sector financed adaptation, although it may be likely that most of the adaptation financing needs appear with the private actors affected by climate change. In part one of the research, the analysis focuses on adaptation activities carried out by private actors, which are disproportionately vulnerable to climate impacts, namely MSMEs (Druce, Kempa, and Moslener, 2016). Many MSMEs also struggle to obtain finance from the formal financial system, known as a 'financing gap'. Of primary concern to the 'financing gap' may be the lack of necessary products and services offered on the financial market, and an inadequate regulatory system providing protection for SMEs and their creditors. Therefore, climate change has the potential to increase costs faced by MSMEs, and this may further increase the 'financing gap'.

This is also highlighted in the Research Component WP 3. Market imperfections may exist which make investment in adaptation less attractive for private investors. Two approaches were identified which present tangible ways for public actors to mobilise additional private investment: (1) Correcting the market imperfection, for example altering market institutions or regulation, or providing tariffs, subsidies, taxation, restrictions on trade, etc. (2) Compensating the private actor for the effects on the risk-return profile: without correcting the market imperfection, commercial actors can be compensated for the negative effects of the market imperfection on their risk-return profile.

Designing and operationalizing mechanisms which may help to address the market imperfections and unlock private adaptation finance is a lengthy process and efforts by initiatives such as CTI PFAN are essential to facilitate private adaptation finance in the interim. The CTI PFAN model also demonstrates that private adaptation investments can be facilitated or realized by targeting the market imperfection directly, and without the need to compensate the private actor. This shows that, for example, adaptation investments do not always require grant financing or compensation to be economically and financially viable. The CTI PFAN model has shown that there is an enormous innovation potential among MSMEs with respect to mitigating the impacts or creating new business from climate change, and the importance – but also the challenges – of providing a stage for this creativity to thrive.

4. High Level Summary of Programme Activities

This section includes a brief overview of the main activities and elements of the Programme. Each of these elements is discussed and analysed in more detail in Section 6.

4.1. Project Selection, Development and Showcasing

Although it was originally envisaged that only one round of project selection would occur during the programme, we managed to include a 2nd Round which was able to successfully build on the 1st Round, but resulted in the programme finishing just before the end of the original project period and which then required a no-cost extension of the project to complete the required reporting.

Being able to undertake a second round of project selection afforded the opportunity of incorporating the lesson from the first round and to evaluate the impact of the resulting program approach changes on the quality of projects that were selected as well as their potential to get to financial close. Many of these changes and their outcomes are covered in this report.

During the first work-stream, many of the methodologies were derived directly from the mitigation work already undertaken by PFAN. In the 2nd call for proposals many changes were made to both the call and the process of project evaluation, selection and showcasing, based on the experiences gained in the 1st Round. It is further envisaged that the lessons learned over the three years of project implementation will further refine future work in the sector.

During the 1st Round of projects, a total of 242 were received in response to the RFP. Of these projects, 60 were shortlisted and 24 were selected to participate in the Project Development and Financing Workshop. 14 were supported by IDRC and a further 10 were supported by financing from USAID. USAID had supported the initial work and despite the fact that IDRC had come in as the main supporter of the programme of activities, USAID continued to support interaction with the projects. Two project development and financing workshops were conducted in Nairobi and Johannesburg, followed by a coaches' workshop and a kick-off meeting for the Research Component. 12 projects were showcased at the Investor Forum, which was held in Johannesburg in November 2014.

In the 2nd RFP, a total of 235 projects were received of which 60 were shortlisted and 15 were selected to participate in the PD&F workshop – 10 of these projects were supported by IDRC and 5 were supported by funding from USAID. 9 projects were showcased at the Investor Forum, which was held in Nairobi in February 2017.

The 2nd Round of project selection, development and showcasing incorporated lessons from the 1st Round, including a more focused geographic and sectoral selection, later stage projects, and modified selection / scoring criteria. In the 2nd Round the weightings were increased for the experience of the project management team and execution capability and for their level of "skin in the game" – i.e. the financial substance of the project development and level of investment from the developers or from other third parties. The development process in the 2nd Round was also expanded to include webinar support sessions and online support for the financial structuring and cash flow modelling. Another new feature of the 2nd

Round was collaboration with the East African Venture Capital Association, which involved participation of the finalist projects at a pre-Forum dinner with a selected group of investors from the association, where each side had the chance to introduce themselves in a relaxed social context and without pressure or commitment. This resulted in a high investor turn-out at the Forum and a high level of interaction between the projects and investors which was important in building relationships and confidence for the potential engagement of investment discussions. The Forum showcasing built on the “Tough Love” format developed during the first Forum.

4.2 Participation in Events

During the course of the programme, from 2014 to 2017, presentations were conducted at various events and conferences to showcase the activities and outcomes. These activities did not form a core of the project activities, but were rather an ad-hoc addition to the programme.

- A presentation on the Adaptation work-stream was conducted at the UNFCCC Bonn Climate Negotiations in June 2014;
- A presentation on the Adaptation work-stream was conducted at the workshop “Our Common Future under Climate Change” in Paris in 2015;
- Participation in 3 events at the Barcelona Carbon Expo in 2015;
- Hosting of a project showcase at the South African International Renewable Energy Conference (SAIREC) in 2015;
- A joint side event was hosted in collaboration with IDRC and REEEP at COP21 in Paris on ‘Scaling Up Private Sector Financing for Adaptation Projects’;
- Side event at the COP22 in Morocco was co-hosted in collaboration with IDRC and Frankfurt School in December 2015 to present the Research Component Results;
- Participation at the ICLEI Cities conference held in Bonn, Germany from July 6-8, 2016;
- A presentation was done on our experience of raising private sector finance for climate related projects at an African Development Bank event in Maputo in 2016;
- Participation in the IRENA Renewable Energy Financing workshop in Maputo in 2017.

4.3. Outreach Missions

During the course of the programme, a number of outreach missions were conducted to coordinate the management of and promote the work-stream, support the calls for proposals, cement relationships with existing network members, provide support to project coaching, conduct programme roadshows, workshops, the investment fora and related events and to increase the number of network members. Outreach missions were reported on in detail in the respective programme bi-annual reports and included:

- Outreach missions to Kenya, Mozambique, Senegal, South Africa and Uganda;

- Roadshows in Nairobi, Johannesburg, Cape Town
- Project Development Workshops in South Africa (1) and Nairobi (2)
- East African Venture Capital Association Social evening in Nairobi
- Investor Fora in Johannesburg and Nairobi

4.4 Exploration of a special fund for adaptation activities

A new initiative to create a special fund for country-based Adaptation projects was explored with the Development Bank of South Africa's Green Fund and the International Finance Corporation (IFC) in Mozambique. Conceptually, the idea was to allocate IFC and Green Fund funding to local commercial banks which would then provide lending at subsidized rates and with reduced commercial exposure to adaptation projects. PFAN would have created the project pipeline for the banks and performed project preparation and credit vetting services for the banks who would have been able to focus their resources on core credit assessment, due diligence and developing a long-term customer relationship. Unfortunately, while we invested significant time and effort in pursuing this idea, particularly with IFC and in getting the buy-in of 2 local banks in Mozambique, in the end it came to nothing as IFC needed to allocate funding within a time limit which wasn't realistic for completing the structuring and implementation.

4.5 Induction of New Members to the Network

4 new members were inducted into the network, and further membership options are being explored with 3 other organisations. This is covered in full details later in the report.

4.6 Innovations during the Programme of Work

Innovations during the Programme included the following:

- a) The development of video tutorial aids for the Project Development and Financing Workshops, recorded during the first Project Development and Financing Workshop in Johannesburg and made available online.
- b) Introduction of webinar coaching modules which were run as on-line support groups to provide expert support to both the project developers and coaches around the structuring of the financial ask and the financial model. This support was provided by the reviewers of the business plan iterations and contributed greatly to the investment structures being much more robust in the 2nd Round than in the 1st Round. As a result of this experiment a new process is being introduced into the mainstream project development activity, which will see a new investment facilitation team conduct "audits" on the investment structures and financial models of all projects before they are showcased to investors and provide support to both the coach and developer in facilitating investment from the global investor network.

- c) An additional form of interaction with investors in the form of an informal investor dinner, co-hosted with the East Africa Venture Capital Association, as an additional means of getting the project developers to interact with investors (see above for more details). This approach again is being mainstreamed into the main project development and support methodology of PFAN.
- d) Refinement of the PFAN evaluation and scoring methodology to take into account and be able to adequately reflect the requirements and peculiarities of Adaptation Projects.

4.7 Research Component and Production of Research Outputs

The research team of the Frankfurt School conducted the research as per the agreement with them and produced three research papers in line with the work packages. The papers produced were:

- a) *Characterising Climate Adaptation of MSMEs: Evidence from Sub-Saharan Africa;*
- b) *Reconciling the Top-Down and Bottom-Up Perspectives on Adaptation;*
- c) *Climate Risk in Adaptation Projects; and,*
- d) A Synthesis Paper.

The research component and related outputs and findings are discussed in more detail later in this report.

One important output was the characterization of adaptation projects along the criteria of (1) adding to resilience; (2) the role of the adaptation component within the project; (3) the project providing public and/or private goods, and (4) the project benefitting from a business opportunity generated by climate change or mitigating the expected damages from climate change (see Work Package 1 below).

Another important output was the framework for characterizing and discussing adaptation project risk, illustrating how individual adaptation projects and portfolios may, but need not, mitigate risk at the level of the economy. Then, different types of incomplete information are distinguished: simple risk, uncertainty and ignorance (see Work Package 2 below).

In an efficient market, all socially desirable (adaptation) investments would take place. However, adaptation investments are deemed insufficient, and out third important output is the identification and analysis of market imperfections, or barriers, systematically keeping adaptation projects from happening. We also analyse practical actions for public actors to overcome these barriers and mobilise additional private (adaptation) finance. (see Work Package 3 below).

A fourth important output is the research finding that that adaptation investments do not always require grant financing or compensation to be economically and financially viable, and the CTI PFAN network component helps to reduce or eliminate the barriers identified in Work Package 3 to advance bankable adaptation projects while engaging the private sector directly.

The activities of CTI PFAN, both the network component and the research component, have significant potential to add to advancing knowledge on private adaptation finance and contribute to the research area. The research component translated the (macro-) economic perspective on adaptation into the business/investors' (micro-) perspective of private actors and financiers. The

network component provided access to a unique dataset of approximately 500 projects from across Sub-Saharan Africa, which allowed an analysis of the investment requirements and risk characteristics of adaptation related projects through practical based research drawing on, and feeding back into, the Network Component. An initial analysis by the research component found that the most widely used operational definition of adaptation in the literature is the IPCC (2014) definition *“The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects”*. However, the IPCC definition of climate adaptation is not so readily applicable at the project level and often a broader project concept can incorporate a climate adaptation component and therefore setting the parameters of climate adaptation should not be restrictive. The research component conducted a typification of adaptation projects driven forward by commercial actors. Our analysis shows that adaptation has different characteristics depending on whether it is implemented at the macro level or integrated into activities at the project level.

Another important contribution to the research area is the empirical research conducted on a broad spectrum of adaptation activities, via the unique dataset, which highlighted that a sectoral approach to analysing adaptation projects is a suitable model. A sectoral approach allows an initial categorisation of target areas as the basis for the implementation of adaptation measures, and the associated technology, finance and capacity building needs. More research could be conducted using this dataset, including a more practical application of the characterisation and the actor-based perspective (analysed in Work Package 3 and introduced in more detail in Chapter 7.2 below).

Work Package 2 also makes an important contribution to the adaptation literature as well as the network component activities. The research team distinguishes between different types of incomplete information: simple risk, uncertainty and ignorance, where the latter two have in common that there is not sufficient information to be able to attach probabilities to potential changes. The paper finds that it is plausible that adaptation projects are likely to face risk-related barriers more severely than other projects. Some approaches that have been developed to cope with uncertainty and ignorance are presented and it is discussed how public intervention may address the challenges, which partly lie in choice-questions that cannot be answered on purely rational grounds. This identifies an area which has not yet been sufficiently covered in the literature, but deserves attention and appears promising.

The research team collated their experiences, the unique dataset provided, and desk-based research to understand the process project developers face in attracting finance for adaptation-related activities, as well as the role of CTI PFAN to address this financing gap (see Work Package 3 and Final Summary Paper). CTI PFAN is in a strong position to foster cooperation between project developers and private investors but the unique selling point is in the provision of tailored professional advice on project development and structuring, which helps to identify adaptation projects from the bottom-up, which are often not reported and are difficult to track. The network component also plays an important role in addressing some of the market imperfections (barriers) identified in Work Package 3 which may reduce the attractiveness of private adaptation investment. The CTI PFAN model has shown that there is an enormous innovation potential among MSMEs with respect to mitigating the impacts or creating new business from climate change, and the importance – but also the challenges – of providing a stage for this creativity to thrive. The research component complements the network component and has made important contributions to understanding the business/investors’ (micro-) perspective of private actors and financiers in implementing adaptation.

4.8 Research Dissemination Workshop

The outcomes of the research were presented at a well-attended research dissemination workshop which was held in Nairobi, on the 17th of February 2017. This was the final formal activity of the Programme.

5. Programme Management and Reporting

This section provides an overview of how the Programme was managed and implemented.

5.1 The PFAN Team, Coaching, Reporting and Programme Coordination

Implementation of Programme activities was coordinated by Thaven Naidoo, Adaptation Coordinator, based in South Africa, supported by Global Coordinator, Peter Storey for activity design, coordination with other network activities and resources, guidance and oversight. The bulk of the project was managed in collaboration between the Global Coordinator and the Adaptation Coordinator.

The ICETT secretariat provided administrative support from Japan, with one ICETT staff member dedicated to the Adaptation work-stream. This was originally Yu Nishimura who was replaced by Akiko Naka, reporting to Taiki Kuroda. Additionally, further support was provided by the East African regional coordinator, the late Bobby Namiti, and the Kenyan country coordinator, Patrick Thimba. Support for events was provided by Anne Kariuki on as as-needed basis, and Olga Sidak provided additional administrative support. PFAN Country coordinators provided local support during outreach missions and special events that PFAN attended.

For both rounds of projects, the coaches were Bobby Namiti from Uganda, Kemal Vaz from Mozambique, Daniele Guidi from Italy, Lamine Ndour from Senegal and Thaven Naidoo. For the 2nd Round of project development, these coaches were joined by Sabera Khan from Zambia and Yaron Cohen from Kenya. Coaches have to firstly be network members and are selected according to their regional proximity to the project, their sector expertise and / or other technical or sectoral expertise.

Reporting was done on a six-monthly basis, and all reports were uploaded onto the PFAN Box server. This report is the final report of the Programme.

Annex 004 - Report 1

Annex 005 – Report 2

Annex 006 – Report 3

Annex 007 – Report 4

Annex 008 – Draft report 5

5.2 Steering Committee

A Steering Committee was created between IDRC, CTI, CTI PFAN and ICETT to act as a resource to Programme implementation by addressing strategic issues, guiding the research and solving any arising issues. It was also a forum and unbureaucratic way for the key Programme participants to keep up with Programme Developments and provide input and advice into programme design and activity implementation. For the first year, the Steering Committee consisted of Mark Redwood, the IDRC project manager, Elmer Holt of the CTI, Taiki Kuroda of ICETT and the head of the Secretariat, the Global Coordinator, Peter Storey, the Adaptation Coordinator, Thaven Naidoo and Ulf Moslener of the Frankfurt School. In years 2 and 3 Mark Redwood was replaced by Bhim Adhikari and Elmer Holt left the committee through retirement and the committee was further supplemented by Laura Druce from the Frankfurt School.

During the course of the project the Steering Committee officially convened four times with the members of the committee also convening on a regular ad hoc basis to discuss ongoing activities and report on key outcomes.

5.3 Research Component

The selection of the research team was conducted through a limited call for proposals. Following exploratory discussions with a number of institutes of higher education, the University of Cape Town, the University of Stellenbosch, the University of Makerere in Uganda and the Frankfurt School were asked to submit proposals for the research component responding to a terms of reference and outline research plan that had been developed by CTI PFAN and agreed with IDRC. The proposals were judged on their respective technical response, the allocated research personnel and value for money. Based on the evaluation of the proposals the Frankfurt School UNEP Collaborating Centre (Frankfurt School) was selected. The Research team consisted of Ulf Moslener, Laura Druce, Silvia Kreibiehl, Christine Gruening, Karol Kempa and Christine Kugler.

The research output was structured by the research team into three work packages, responding to the research questions, each with a delivery date as both a draft report and final report. At the conclusion of the research period a summary report was also provided. All of these reports are dealt with in more detail in this report.

6. Network Component: Activities and Outcomes

This section provides a detailed discussion and analysis of the Network Component, the main activities and outcomes

6.1 Overview of Project Selection & Development Process

The project development process follows a process established for the mitigation stream and consists of a set of discrete activities, broadly described as follows:

- i. **Call for Proposals:** The Requests for Proposals, were developed along the lines of the mitigation calls, but incorporating the lessons from the initial background work on Adaptation and providing background to the sectoral focus of the program and geographic eligibility. All responses were required in a prescribed format to simplify the process of project selection.
- ii. **Project Selection & Shortlisting:** All projects which responded to the RFP were subjected to multiple rounds of screening following a scoring matrix developed for the work-stream. The projects were evaluated by multiple reviewers from the PFAN Network and subjected to discussion and unanimity across the evaluation team and the Secretariat before they are finally accepted for pipeline induction.
- iii. **Coach allocation and contracting:** Once selected the projects were allocated to coaches from the PFAN network, based on availability, sectoral experience, geographic location and sectoral / technical expertise. The coaching was documented by three way contracts, signed between the projects, coaches and PFAN, outlining the terms of reference of the coaching services.
- iv. **Project Development & Financing Workshop:** A Project Development and Financing workshop kicked off the coaching process of each Round, even though coaches would have had some prior interaction with their projects. This was an opportunity for the projects to get clarity on the PFAN methodology and deliverables, be peer reviewed, interact with their coaches on a face-to-face basis and to understand the key points of developing their projects to bankability. It was also the first opportunity for PFAN to meet the projects in person and get a fuller picture of the project, its strengths and weaknesses, development status and need for support.
- v. **Coaches' Workshop:** A Coaches' Workshop followed each of the Project Development and Financing Workshops as a closed-door session for the coaches to reflect more critically on the projects, exchange points of view and build consensus on their respective projects and develop a personalised focus for the coaching of each of their projects. Subsequent to the 2 workshops the coaches provided an interim coaching report on their respective projects, which in each case summarised the project and the ask, identified strengths and weaknesses and outlined the key focus areas for the coaching assignment.

- vi. **Coaching Period and Project Deliverables:** The core of the coaching support was provided in each case in the run up to the Investor Forum, with the project developers having to provide a series of investment deliverables according to a fixed time schedule. Key deliverables that are required are multiple iterations of the Business Plan, a financial model, Project Data Sheet which summarizes the project, an Executive Summary and an investment pitch PowerPoint presentation.

- vii. **Preparatory Workshop:** A Preparatory Workshop was held two days before each Investor Forum and provided the opportunity for project developers to practice and refine their investment pitch and put the finishing touches to their presentations based on feedback from the coaches and evaluators. In the case of the 2nd Round this workshop was also used to decide a run-off between 2 projects competing for the remaining finalist place in the Forum.

- viii. **Investor Forum:** The 2 Investor Fora were managed as business plan competitions with the judges selected from the PFAN network, and an audience invited from the investor community and other stakeholders and partners. In both cases they were unique showcases for the projects to present their projects to and interact with investors. After the presentations the judges retired to adjudicate and decide their selections based on a prescribed scoring format. The judges were given prerogative to decide the number and format of awards as first and second prizes and runners up etc.

- ix. **Follow up Coaching:** Following the Investor Forum, additional coaching support was provided to projects which were deemed to have a high probability of getting to financial close. This was managed on an as needed basis and was dependent on the availability of resources for these services.

Each of these processes is now analysed in more detail.

6.2 Call for Proposals and Project Selection

The RFP is based on the mitigation format established by PFAN, taking into account the background work done prior to the establishment of the work-stream, which created the definition for the kinds of projects we were looking to work with, the sectoral focus and the geographic focus for the scale-up program, namely Sub Saharan Africa.

The process of project identification was considerably facilitated and accelerated through the ground work laid under the preceding pilot activity on adaptation funded by USAID and which transitioned into the IDRC funded programme activity to scale up the CTI PFAN Adaptation Stream. At the end of the pilot activity a call for proposals had been conducted to identify adaptation projects from Sub-Saharan African countries, particularly targeting Mozambique,

South Africa, Kenya, Uganda, Senegal (and to a lesser extent Ghana and Nigeria) which are also the IDRC focus countries.

Both 1st Round and 2nd Round calls for proposals were distributed through network partners, direct communication with a database of people associated with climate change in Africa that we developed for the call, and through various newsletters and websites and partner organisations, including the REEEP and the Climate L networks. Well over 2000 invitations were sent out requesting proposals. In both cases the deadlines were extended to allow developers additional time to respond.

Project proponents were required to submit an application form, a project proposal based on a format that we had established and a project data sheet which summarizes the key project components in a single page.

The projects which responded to the RFPs went through a multi-stage process, with the first stage being an elimination round, where we used a simpler set of criteria to remove projects which were not eligible, did not justify full evaluation. In the second stage, each of the remaining projects was evaluated by at least two reviewers, using our full set of criteria with the aim of selecting projects for shortlisting. The shortlisted projects then went through a final evaluation to select the projects for inclusion into the project development pipeline for receipt of PFAN support and advice.

The projects were scored according to a predetermined scoring matrix. For the 2nd Round, this was modified to take into account reflections from the judging in the 1st Investor Forum and based on discussions with investors and the Research team. Experience from the 1st Round of project selection allowed us to change the criteria of selection for the 2nd Round, where we selected projects at a later development stage and with a greater emphasis on the management team and an existing financial track record. Projects at too early a stage presented risks that were higher than investors are willing to consider and the management team had to inspire confidence that they could implement the project, and had the appropriate skills for the task. While a school teacher, for example, could implement a water bottling facility, it does not inspire confidence for an investor when both the idea and the people presenting the project are untested. These projects therefore had to demonstrate that they already had some trading and a financial track record which could be viewed by the prospective investor.

In the 2nd Round, each of these projects were then interviewed telephonically to ensure that they could commit to the deadlines and deliverables, that they had adequate connectivity to ensure proper communication during the coaching period and to validate their trading track record and their financial status. In the 1st Round several projects did not make adequate progress as they were located in areas with limited connectivity which precluded adequate coaching support.

The 1st RFP was focused on Sub-Saharan Africa and yet the final count of the project submissions showed that there were a handful of countries which provided the bulk of the responses. The 2nd RFP therefore focused on 3 regional hubs of interest from which we had received the greatest number of submissions in the 1st Round: Southern Africa, including South Africa, Namibia, Mozambique and Zambia; East Africa, including Kenya, Uganda, Rwanda and Ethiopia, and West Africa, including Ghana, Senegal and Nigeria. These are also the countries in which we have the strongest networks and are the most developed in terms of on the ground adaptation activities. In these countries we were able to leverage off the mitigation work and networks that exist.

The selected areas of focus for the 2nd Round, agriculture, water, forestry (including biodiversity and ecosystem services), energy and urban development, are areas where we identified partners with public funding of projects and as areas of high interest for adaptation activities. The implication was that we looked to identify projects that were already receiving some public funding, and tried to identify the commercial aspects of the project for private sector financing. A consequence was that we were also able to have greater control of the development of the projects as it is easier to manage the kind of expert assistance needed for the development of projects within these sectors.

During the 1st Round of projects, a total of 242 were received in response to the RFP. Of these projects, 60 were shortlisted and 24 were selected to participate in the Project Development and Financing Workshop. 14 were supported by IDRC and a further 10 were supported by financing from USAID. In the 2nd Round Call, a total of 235 projects were received of which 60 were shortlisted and 15 were selected to participate in the PD&F workshop – 10 of these projects were supported by IDRC and 5 were supported by funding from USAID.

When comparing the 1st and 2nd Rounds of project submissions it is interesting to note that what constitutes an adaptation project was still unclear to project developers, despite a more precise description in the call documentation and tightened eligibility criteria. This implies that despite the fact that we developed a definition of our own which was circulated with the RFP, neither our definition nor that of other activities nor the concept and understanding of Adaptation have yet become mainstream in society at large and particularly not in the economies of our target countries. This influenced the name change of the Programme from “adaptation” to “climate change”, for the project work-stream, as we felt that the concept of “climate change” is more widely recognized than the issue of adaptation.

Considering that almost 70% of Sub-Saharan Africa is employed in the agricultural sector, it is interesting to note the predominance of agricultural projects in the 2nd Round of selections. Of the 15 projects selected, only one is not directly related to agriculture. From our experience with the projects presented it seems that adaptation projects in Africa are most likely to be associated with three sectors:

1. **Agriculture and Forestry** – 70% of the rural African population is engaged in agriculture, and agriculture plays a role both in resilience and food security;
2. **Water** – in the connection both of water scarcity, flooding and of managing potable water availability through improved waste-water treatment. Across Africa climate simulations have indicated areas of water scarcity and potential flooding and these should be used to determine the kinds of projects that are selected for the future;
3. **Urban Development** – it is projected that 50% of Africa's population will be resident in cities by 2030, and these urban areas will be subjected to multiple challenges, including those brought on by climate change. While we did not see many projects from this sector in either of the RFP's, it is anticipated that it will be an important area of intervention, based purely on the population that will be resident in these urban areas.

Most development projects in these sectors will include an adaptation / resilience building component and perhaps future iterations of work in climate change adaptation in Africa should look at how these areas are prioritized.

Annex 009 – First RFP

Annex 010 – Second RFP

Annex 011 – List of projects from 1st RFP

Annex 012 – List of projects from 2nd RFP

Annex 013 – 1st Scoring matrix

Annex 014 – 2nd scoring matrix

Annex 015 – Shortlisted projects from 1st Round and coach allocation

Annex 016 – Shortlisted projects from 2nd Round and coach allocation

6.3 Coaching and Contracting

Once projects were selected for induction into the project development pipeline, they were allocated to dedicated CTI PFAN coaches for the provision of intensive one-on-one project development and financing support and advice. This was documented by a three way contract between the project developer, coach and PFAN, outlining the terms of reference for the coaching assignment.

The support and advice is structured so as to advance the project development, refine the underlying business models, ensure that the investment structure is sound and then to prepare the business plans and related investment documents in a package which makes them more attractive to investors. The support and advice is tailored to each project's specific requirements in each case. As the coaching proceeds the projects are required to submit

updated versions of their business plans, the evaluation of which will determine which projects are selected for showcasing at the Investor Forum.

In the 1st Round, the coaches were Bobby Namiti (Uganda), Amadou Lamine Ndour (Senegal), Kemal Vaz (Mozambique), Daniele Guidi (Italy) and Theven Naidoo. In the 2nd Round these coaches were joined by Sabera Khan from Zambia and Yaron Cohen from Kenya.

All coaches selected for this work-stream had participated in and provided coaching to CTI PFAN's mitigation stream activities and have experience of working with adaptation related issues and projects. Coaches were allocated based on sectoral and technology expertise / experience as well as geographic proximity. This approach seemed to work well for most cases except in situations where developers and coaches had timing and priority conflicts at key moments in the program. In such cases, the coaches were requested to provide additional support to the projects and were monitored by the Adaptation Coordinator to ensure that the projects were satisfied that they were getting the support promised in the terms of reference. In addition, Peter Storey, the Global Coordinator provided back up support and advice to the coaches and projects on an as needs basis.

While all the coaches were briefed on the time they are required to spend on the coaching, the interaction between the coaches and projects developers could be improved through more in-depth terms of reference, which also ties the project developers in on ensuring that they comply with the deliverables. For the future, this should precede the Project Development and Financing (PD&F) Workshop, so that project developers are fully aware of all what will be required of them and have an option to withdraw at an early stage if they are not able to comply, allowing us to work with projects which have the ability to fulfill their obligations in respect of the resources being used to support them.

Projects which withdraw after the PD&F workshop reduce the number of projects which we are able to work with, in the coaching development phase, and reduces the overall number available for final selection. In the 1st Round of RFP's one project withdrew because of political instability in the project area and another two because they could not keep up with the required interaction with their coach. It is difficult to evaluate the impact of this on the final projects showcased at the Forum beyond the fact that we had fewer projects from which to choose for the final showcasing at the Investor Forum.

The terms of reference for coaches is being currently being restructured for PFAN 2.0 so that there is a clearer understanding between CTI PFAN, the coaches and the project developers of expectations, commitment, deliverables and timeframes, and desired outcomes.

Through the coaching in both rounds it became ever clearer that project developers and coaches still struggle with the investment structure and the financial model for their projects. Developers had fixed ideas about their ideal investment structure and were often reluctant /

unwilling to heed coaching advice – particularly in relation to valuations and cost of financing. Developers often had unrealistic expectations for the value of their project and in particular their contribution to it (e.g. expecting to retain majority control while asking for 90% of the total investment required); or expecting to get long financing tenors at subsidized interest rates. To address this issue an extra control point was introduced into the coaching of the 2nd round with the reviewers of the 2nd draft business plans conducting an intensive review and feedback on the investment structures and financial models via webinars. These webinars were run as support clinics with the project developer, expert reviewer, coach and Adaptation Coordinator involved. Only projects which took on board the advice provided were able to proceed to the next stage of coaching and develop and participate in the forum. This provided the coaches with much needed argumentation back-up and support in refining and adjusting the respective investment structures for presentation to investors.

The new structure of PFAN 2.0 has taken this on board and is mainstreaming an audit of this nature in to the project development methodology which will be conducted at the 2nd draft business plan stage by a specialist investment facilitation team. They will audit the investment structure and financial model of each project approaching maturity in the pipeline and only projects which pass this check will be eligible for introducing or showcasing to investors. This will ensure that the business plans and presentations focus adequately on the financial proposition. The investment facilitation team will also be responsible for supporting the coach in identifying appropriate investors for each project so that the projects are more closely matched with potential investors from the global network. Projects which do not pass this audit will be returned to the pipeline for further work and will only be represented as and when they mature.

An additional aspect of the contracting that needs further consideration is the incorporation of a commitment from the projects to keep PFAN informed of their project progress following the termination of the coaching services. This will allow the projects to be tracked over an extended period of time and to be able to evaluate the impact of the PFAN support to the project over its full lifetime. This aspect of evaluation is however essentially a question of resource. As is well known PFAN does not currently have the resource to monitor and evaluate projects beyond financial close. In the new hosting arrangement for PFAN through UNIDO and REEEP, this will be managed by the new workflow system that has been developed which will keep track of projects on a longer term basis.

Finally, a further area of proposed improvement is to promote more communication between the coaches. This is also an area where the investment facilitation team is envisaged to provide support by connecting coaches to each other for problem solving and trouble-shooting of similar situations.

Annex 017 – Coaches Terms of Reference

6.4 Project Development & Financing Workshop (PD&F Workshop)

As an integral component of the coaching process and in preparation of the Adaptation Investor Forum, Project Development and Financing Workshops were held in Nairobi (for the East African Projects) and Johannesburg (for the Southern African projects) in May 2014 for the 1st Round and in Nairobi in 2016 for the 2nd Round. During the 1st Round, it was felt that the projects which were closer to the East African region could be accommodated most cost effectively in Nairobi and those with better links to Southern Africa could be accommodated in a Johannesburg workshop. For the 2nd Round of RFP's, we had fewer projects to work with, with a much greater concentration of projects from East Africa, enabling us to host the workshop in Nairobi only.

The objectives of these workshops are based on the model developed for the mitigation stream and are as follow:

- To launch the coaching phase for the shortlisted projects.
- To communicate the key elements of the CTI PFAN methodology to the shortlisted project developers and to build their project development and structuring capacity in a dynamic, interactive group environment as a precursor to the one-on-one coaching.
- To raise the shortlisted project developers' awareness and understanding of the investment / financing process with the aim of helping them structure better financing proposals.
- The PD&F workshop is a key component in the Forum process and facilitates the organisation and implementation thereof at a number of levels:
 - It provides the first opportunity for the organisers to interact directly with the project developers and understand their respective proposals with more clarity. In particular it enables better judgements to be formed about the relative maturity and seriousness of the projects and their respective potential for raising financing. This knowledge enhances selection of the finalists and semi-finalists;
 - It enables the coaches to meet their respective designated projects and conduct face to face coaching which, in turn, facilitates the remote / virtual coaching;
 - It ensures that all project developers are aware of their respective commitments and obligations to produce the deliverables required by the Forum process.

The workshops are designed to kick-off the coaching process by introducing the projects to their respective coaches and by identifying their respective strengths and weaknesses so as to develop personalized road maps and scopes of work for the coaching in each case. The aim of the workshop was to introduce projects to the PFAN process, assess project status and substance, identify strengths and weaknesses, impart technical knowledge regarding the development process and investors' expectations and what an ideal business plan looks like and map out individual scopes of work for the coaching process. This initial interaction with the projects helps them understand the following key issues which are discussed at length at the workshop:

- Business & Revenue Model
- Ability to scale
- Attractiveness/ Value proposition to prospective Investors
- Risks and mitigation.

At these workshops each developer is given 15 minutes to present their project and receive feedback from all coaches as well as their peers on their business model. While many of the projects have specific issues that they need to address, overall there are many similar issues, including the articulation of the key business proposition, refining the presentation to focus on the business rather than the underlining technology, simplifying presentations so that key messages came across, and being able to identify for an investor early on in the presentation what level and type of finance is required and what it would be used for in the business. The similarity of the needs between projects and different rounds of RFP's reinforces the premise of the PFAN methodology with regard to the "missing middle".

At each event, an investor presented on what they look for in projects, and a session was held which dealt specifically with how to develop and structure a business plan in the form expected by investors who take a stake in the business or financiers who provide loan capital. Having an investor present allows the project developers to interact directly with a real-life investor and allows them to see their request for finance from another perspective. Many of the questions asked in this session relate to key areas for both project developers and financiers, and in many cases it is the first time that project developers interact with a financier. The advantage being here that the workshop is a low risk environment removed from the pressure of success and failure.

The workshops also outlined the timeframes going forward and what is expected of the project developers in terms of their deliverables and the timeframes for responses they should expect from coaches.

The PD&F workshop is followed up by a half-day workshop with the coaches. This workshop provides an opportunity for a closed-door session where the coaches are able to comment on their views of the projects and the required focus of the coaching. It provides each of the coaches with a clearer understanding from the group consensus as to the most important areas of the coaching input. In some cases issues arising were not covered in the PD&F workshop, however this is rare, and is related in some way to the fact that it is a closed meeting where the projects are not present and more sensitive issues about the projects can be discussed

Annex 018 – PD&F Workshop Terms of Reference

Annex 019 – Nairobi PD&F Workshop Agenda

Annex 020 – Johannesburg PD&F Workshop Agenda

Annex 021 – 2nd Nairobi PD&F Workshop Agenda

6.5 Deadlines and Deliverables

During the PD&F Workshops, the projects were provided with the timeframes for the deliverables, which consist of several iterations of the business plan, a Project Data Sheet (PDS) which summarises key aspects of the project, an Executive Summary and a PowerPoint slide presentation. These are the presentations which are to be shown at the Investor Forum, and are available at the following link.

1st round project presentations:

<https://app.box.com/s/h0gpjlh4qa59eukz36bd>

2nd round project presentations:

<https://app.box.com/s/2c03s5zn397lmla7dvfcy00fg1n946sw>

During the 1st Round, several projects were not able to keep to their deliverables for a variety of reasons, including a change in their investor needs, armed conflict in the project area and a change in the project viability.

During the 1st Round, in late August 2014, the shortlisted projects submitted first draft business plans for an interim review of progress and for the purposes of selecting the projects to be showcased at the Investor Forum in November. Five (5) projects did not manage to submit a draft business plan and were automatically assigned to the long term development pipeline, where the projects are monitored on an ongoing basis, but without direct coaching support. This system follows on the mitigation stream and is a way to conserve resources for projects which are unlikely to be showcased at a Forum. In most cases this was simply because the project was not mature enough and had not been able to address the identified business model weaknesses in the available time. Of the remaining 20 projects, each was evaluated / scored by two reviewers. Based on this assessment 6 projects were selected for showcasing at the Investor Forum; 8 were requested to make further identified improvements to their business plans and ear-marked for possible participation at the Forum with the final decision being dependent on those improvements being made in time; the balance of the projects were allocated to the long-term development pipeline.

It was unfortunate that only 20 projects of the initial 25 inducted into the development pipeline were able to submit their first draft business plans, and this has implications for how we select projects for coaching in the future. We are looking at how to optimize the project identification and selection process, and one option may be to select a larger number of initial projects to attend the PD&F workshops and actually only select the projects for coaching after the first draft business plan. This way we can be sure that we have the number of projects for which we have resources and also that coaches can choose to work with projects more in line with their own expertise and preferences.

Another lesson learned was that many of the projects presented at the Project Development and Financing Workshops had not changed significantly by the time of the Investor Forum. There are often multiple reasons for this, including the fact that some project developers are so fixed on their own approach that they are not willing to move too far from their original presentation. In these cases, if they are selected to be showcased at a Forum, their interaction with potential investors either confirms their own position or forces them to adopt a new approach.

PFAN is now exploring new ideas to better engage project developers during the coaching process and to disseminate information such as 'how to develop a business plan' effectively to all project developers. One potential cost effective solution is to use webinars to incentivize meeting deliverable targets and facilitating more general discussions. The coaches are also being encouraged to be more vigorous in preparing the developers and to clarify the purpose and different milestones during the coaching process. This is an area which will receive greater attention in the new PFAN 2.0 where a workflow system is being introduced which will detail each deliverable with supporting documentation as a guide for both project developers and coaches.

Following the PD&F workshops, project coaches provide "Interim" coaching reports which provide an overview of the focus of their coaching input. This is a key deliverable from the coaches and lays out the focus of their interaction with the project and forms the basis of evaluating their performance on the coaching assignment. While most of the communication between the coaches and their projects is confidential, they are encouraged to copy the programme coordinator so that any issues that arise from the coaching assignment can be dealt with, such as the lack of timely responses from either party.

Each iteration of the business plan is reviewed by the coaches and further support provided on improvements. By the end of the coaching support period projects should be ready for showcasing to investors. Projects to be showcased are finally selected at the preparatory workshop which occurs two days before the Investor Forum and gives the projects adequate opportunity to refine their investment pitch presentations.

For reporting purposes, each of the development stages is supported by a Project Development Report (PDR) and the development stages are defined as follows:

PDR 1: Interim Coaching Report This is the report that is prepared immediately after the PD&F workshop and defines the scope and focus of the coaching interaction.

PDR 2: Business Plan 1st submission. The first business plan submission should incorporate all the changes suggested by the coaches and peers during the PD&F workshop

PDR 3: Business Plan 2nd Submission and Supporting Documents. 2nd and possibly 3rd submissions of the business plan should incorporate changes suggested by the coach and are directed at making the strongest investment case for the project. This submission should include the Project Data Sheet (PDS) as well as an Executive Summary and the PowerPoint presentation.

PDR 4: Final Coaching Report. The final coaching report follows the Investor Forum and provides an overview of the process of the coaching, the progress made by the project, as well as the potential to take the project to financial close. For projects which are unlikely to achieve financial close this is the last interaction with coaches. In some cases, where the project has some potential to develop further, possibly get to bankability, a holding position is taken where we stay in contact with the project and only re-engage when the project has developed adequately.

PDR 5: Further support towards financial close. In many cases, the projects that are showcased at the Forum elicit investor interest, but there could be outstanding issues for clarification / resolution. In such cases a further deliverable is requested of the coach, where a Terms of Reference is agreed based on these specific outstanding issues which the coach will support the project to achieve.

6.6 Preparatory Workshop

Each Forum was preceded by a one-day Preparatory Workshop designed to hone the investor presentations in a group learning environment, and assist project developers to be able to answer potential questions from investors in a manner that could bring out the strengths of their projects. Project developers present their final business plans, which are then critiqued by the coaches and other experts present such as specially invited investors/network partners. The workshops afforded the project developers the last opportunity to fine-tune their investment pitch presentations and respond to queries, as well as to hone their presentation skills and tidy up their PowerPoint presentations before their presentations at the Forum. We were fortunate to have Nagaraja Rao, Asia Regional Coordinator present at the 1st workshop, who was able to look at the projects from a fresh perspective having not been involved with these projects prior to this. Based on this experience, Nagaraja Rao participated in the 2nd Preparatory Workshop as well, providing valuable and constructive critique.

A new element was introduced into this session, based on model developed in the mitigation stream in Asia network, called "Say it in a Minute". It is based on developers drawing a question from a hat and then having to respond to that question within a minute, as a training exercise on how to respond to questions from the judges. Developers commented that they found this a very useful and constructive exercise. Examples of these questions are as such:

“Where you want to see your company in next 5 years?”

“What is unique about your company?”

“How do you plan to scale the team in the next 12 months?”

“What gives your company a competitive advantage?”

“What are the barriers to entry in your business model?”

These questions prime project developers to consider the variety of questions that investors could ask and how they could direct a response to highlight valuable information about their project, which may not have come through in their presentation. This exercise proved valuable in that even when project developers were not actually responding to a question, they had to consider how they would respond, and also learnt valuable lessons from the responses and discussions that ensued.

A key issue that was identified during these sessions was that project developers had to more clearly identify how their project assisted with climate change adaptation, and many of the projects had to find alternate ways of articulating this issue. This was on the list of areas to be covered for the presentation, but in many cases was not articulated adequately. The Research Component clearly identified that finance for adaptation is not significantly different from finance for other projects, however, this had to be articulated as this was a project stream based on this component of climate change. This was especially important as the arena of climate change adaptation would be new to many of the investors who had been invited to the Forum. As a first-of-its-kind work-stream, introducing climate change projects to private sector investors, the articulation of the environmental and social benefits is important, especially for the future when it is envisaged the impact investors will become more involved in financing these kinds of projects.

PFAN should ensure that the judges understand the relevance and weighting of adaptation within the proposal, against the risk-return profile of the investment. Based on the barriers analysis, one way to facilitate adaptation investments is to reduce the risk for private investors for example through insurance or guarantee provision. Private investors offering such services could be brought into the room to increase their awareness of the need for such instruments or to help de-risk potential investments for other investors in the room.

Annex 022 – Nairobi and Johannesburg 2014 Preparatory Workshop agenda

Annex 023 – Nairobi 2017 Preparatory Workshop Agenda

6.7 The Investor Forum

The principal objective of the Investor Forum is to showcase investor ready projects from the ACCPS Programme with the intention of getting closure on financing for the implementation or scaling up of the projects. Having gone through a rigorous coaching process to bring out the business ideas in the projects, the Investor Forum is the true test of the projects.

Other objectives included the following:

- To share best practices in project development & management that include demonstration on how to manage the project development process right from the pre-feasibility study, feasibility study, environmental impact assessment, to financial closure and implementation stages;
- To introduce participants to the investment / financing process and to expose them to the thinking and expectations of investors and financiers in a low risk environment;
- To provide a forum for participants, (bankers, project developers, investors, coaches, policy makers and government officials) to interact with each other;
- To provide an opportunity for project developers to get feedback from investors and hence have a clear understanding of what is expected of them from investors.

In the 1st Round, The Africa Climate Change Investor Forum was held in Johannesburg at the Wanderers Club on the 12th November 2014. A total of twelve projects from the original 24 were showcased at the Forum. The projects were from South Africa (1), Ethiopia (1), Namibia (1), Mozambique (2), Uganda (2), Kenya (3), Ghana (1) and Nigeria (1). The projects represented a total investment ask of \$35.5million in both equity and debt, and hailed from the following sectors, with some projects representing more than one sector: agriculture, water, agro-processing, agricultural value chains, housing, real estate, energy, bioenergy, biodiversity and ecosystem services, coastal protection, micro-insurance and microloans.

The event was well attended with over 70 participants of which one third were investors.

The program included two new formats for the presentations by project developers. The “Tough Love” session was for projects which were close to ready for presentation to investors, but still required some development. It was based on a “Dragon’s Den” format, as an interactive session, where the panel of judges joined the project developer on stage, and was able to comment on the 10 minute presentation and provide advice and guidance to the developer. Four projects were presented in the “Tough Love” sessions. The “Elevator Pitch” session was an opportunity for two promising projects to present the key elements of their project in a 5 minute slot. Unfortunately on the day only one of the projects presented in this session as the other, a project developer from Nigeria, had visa problems, resulting from the Ebola outbreak in West Africa. The main part of the program was around the six finalist projects which competed in the business plan competition.

PFAN tries to ensure that the judges understand the relevance and weighting of adaptation within the proposal, against the risk-return profile of the investment. Based on the barriers analysis, one way to facilitate adaptation investments is to reduce the risk for private investors for example through insurance or guarantee provision. Private investors offering such services could be brought into the room to increase their awareness of the need for such instruments or to help de-risk potential investments for other investors in the room.

Adaptation and mitigation appeal to different sectors of the investor community, even though there may be some overlap. At this stage we realized that an important issue would be to develop a new investor database with which to interact on the adaptation projects. This would need to be maintained and updated on a regular basis as we continue to expand our adaptation activities.

Adaptation projects inherently have social and environmental credentials built into them and they ought to have a particular appeal to Impact Investors. Investor outreach activities were accordingly planned for Uganda, Kenya, Zambia and South Africa over the following months. It was also our intention to interact with investors in one of the key global hubs, either in the UK, Europe or the USA, as a way to get maximum interaction with high profile investors within a limited location. However this had to be curtailed due to budget constraints.

A proposal was also developed in collaboration with Impact Amplifier, a network member, to host a series of “roundtables” for impact investors during which projects in the pipeline development could be showcased in a format which informs the impact investment sector of these projects. The aim of these roundtables was to introduce impact investors to the CTI PFAN Adaptation Work-stream and also gain their feedback to the business models presented. The first of these events was scheduled for the first second quarter of 2016, but was replaced by our closer interaction with the East African Venture Capital Association (EAVCA).

At this stage we also realized that we should be also exploring ways to conduct more “market sounding” activities to gauge investor interest in projects before they are showcased at the Investor Forum.

The 2nd Investor Forum in Nairobi in February 2017 was officially opened by Mr. Robert Hofstede, IDRC Associate Director of Climate Change, who provided an introduction to IDRC and its work in climate change and adaptation and outlined the objectives and some of the initial outcomes of the ACCPS programme, emphasizing the important role of the private sector in financing and implementing climate change projects to reach climate goals. This was followed by a short keynote address from PFAN Global Coordinator, Mr. Peter Storey who summarized the PFAN process and elaborated on some of the initial outcomes of the ACCPS programme, mentioning in particular the findings of the Research Component conducted by the Frankfurt School. Mr. Thaven Naidoo the Adaptation Coordinator then briefly reviewed the ACCPS activities leading up to the forum, outlining the journey of the

projects to get to the Forum, setting up the Forum objectives, outlining the day's proceedings and introducing the judges.

This ushered in the core business of the day which was presentation of the individual projects: Each project participant was allocated 25 minutes of show-time, comprising a maximum of 15 minutes for their investor pitch presentation and the remainder of the time to respond to questions from the judges. There were 3 sets of project presentation session each with a different constellation of judges.

The Africa Climate Change Investor Forum was primarily targeted at investors and financiers engaged in the climate change sectors in Africa and particularly impact investors.

A total of eighty five (85) participants were in attendance including judges, project developers, coaches, organizers and guests; Sixty one (61) being men and twenty four (24) women. The participants could be categorised as follows:

Project Developers	11
Government	1
Investors (including judges)	40
Coaches	5
Others	28
	85

Annex 024 – 2014 Forum Agenda

Annex 025 – 2017 Forum Agenda

Annex 026 – 2014 Forum Report

Annex 027 – 2017 Forum Report

6.8 Judging at the Investor Forum

During the 1st Investor Forum, the judges were Anthony Mills of C4 Ecosolutions, Max Pichulchik of Impact Amplifier, Jason Schaeffler of REEEP, Duncan Onyango from Acumen Fund in Kenya, Benito Grimaudi from ResponsAbility in Kenya, Mike Goldblatt from Metier and Kershni Maharaj from Raiz Corp.

Among the issues that the judges based their evaluation on were:

- the definition and knowledge of the market;
- the definition of products or services;
- the value proposition;
- the level of innovation and IP;

- the credibility of revenue generating strategy/growth strategy;
- credibility of management and achievability of implementation plan;
- the achievability / credibility of financial projections;
- the credibility of capital expenditure and assumptions;
- the achievability of projected revenues;
- reality of scenario analysis;
- the identification, enforcement and protection of competitive advantage;
- identification of chief threats and opportunities, protection of IP where applicable;
- awareness of the competition;
- suitability and effectiveness of risk mitigation strategies;
- focus on critical elements for success of business / project;
- environmental impact and other developmental benefits; and,
- the definition and potential of investor exit strategy.

While these criteria are self-explanatory, and provided the basis for the initial score, much of the evaluation was comparative rather than absolute. Anthony Mills raised the issue of the separability of the adaptation component from the project as a whole. This issue was dealt with in the opening presentation from Ulf Moslener, during which he presented on the context for the Research Component and the work done to date, and this is an issue that we will need to address in the ranking of projects for selection during earlier phases of project evaluation.

The final selection also took into account the potential impact of these considerations even though they were not a part of the score sheet. In the final results, the Eastern Rice Company of Uganda was declared the winner, with African Bamboo from Ethiopia and Farm Fork from Kenya awarded the runner-up prizes. The winners reflect the likelihood of these projects securing finance and these projects are shortlisted for further support from CTI PFAN. It is likely that other projects which generated investor interest will also secure further support.

Mark Redwood and Bhim Adhikari from IDRC who were present at the Forum awarded the prizes.

While the “Tough Love” and “Elevator Pitch” sessions were not judged, in discussions with project developers after the forum, they all felt that the exercise of having to present their projects to investors in a public forum such as the Climate Change Investor Forum was a valuable lesson and that it would definitely help them in their project development process. See attached letter from Lusoti (Annex 14).

For the 2nd Investor Forum in Nairobi, a panel of 3 judges provided feedback on the projects and their respective attractiveness for investment. The judges scored the projects according to defined criteria and awarded 4 projects for receipt of the CTI PFAN Africa Climate Change Financing Awards. The four projects awarded were:

Winner: Biotech Services SA, Senegal (P-090) Scale-up project to increase production capacity from 5.000 tonnes to 30 – 50.000 tonnes pa for its organic fertilizer produced from agricultural waste. (Ask: USD 2,15 million Equity)

1st Runner-Up: Inuka Africa, Kenya (P-135) Scale-up project to increase Inuka's (a MFI) lending to the agricultural and particularly the dairy sector. (Ask: USD 2 million Debt / 5yrs @ 6% pa)

2nd Runner-Up: ZMF, Zimbabwe (P-056) Diversification of existing wholesale lending to MFIs to enable expansion into environmental and "Green" sectors. (Ask: USD 4,2 million debt / 5yrs @ 6% pa)

2nd Runner-Up: Mozambikes, Mozambique (P-125) Scale-up of assembly capacity and financing of expanded marketing strategy and sales channels. (Ask: USD 600 K Equity / USD 100 K Working Capital Loan)

The main recommendations and take-aways from the judges, feedback and critique can be summarized as follows:

- The Investment Ask needs to be carefully structured and realistic: the judges strongly advised developers to choose and structure appropriate financing instruments and amounts dependent on their project type and status. A number of the projects were seeking debt without having an adequate equity base; a number of the equity asks were based on unreasonable valuations of company / project value (sweat equity);
- The ask also needs to clearly enumerate how the requested financing will be deployed and what the funding will be spent on;
- The financial model needs to be thoroughly prepared and clearly presented. Models need to demonstrate repayment ability and interest rate cover in the case of debt financing and appropriate equity returns (dividend flows and / or value accrual and exit strategy & options) in the case of equity investment;
- Financial models need to include scenario analysis modelled on the chief risks that are identified;
- Developers need to understand their financials and be able to defend them / respond to detailed questions on the assumptions and the outputs;
- Execution plans need to be clear, well prepared and realistic. The investment pitch needs to demonstrate that the development / management team has the requisite execution capacity;
- Regulatory framework needs to be clearly outlined and any constraints and opportunities should be highlighted;
- The competitive environment needs to be clearly researched and understood. Investors expect developers to know who their competitors are and where their respective strengths and weaknesses are;

Annex 028 – 2014 Judges' scoring results consolidated

Annex 029 – 2017 Judges’ scoring results consolidated

6.9 Post Investor Forum Follow-up and Additional Coaching

From the 1st Round of projects, three projects have been successful in raising funding to further their development and implementation in initial financial closings: P190 – Eastern Rice (UGA) has raised UGX 1,5 billion (ca USD 380.000) for project implementation and both African Bamboo (Ethiopia – P235) and Classic Foods (Kenya – P137) have recently raised funding for project development and risk capital.

The total amount leveraged for the Adaptation stream to date is just under USD 2 million for the four projects. It is too early to report closures from the 2nd Round of projects and this brings up again the need to be able to keep track of financing developments even after completion of the programme activities. For the 2nd round in this case we have identified a solution (as discussed below) but the reality is that financial closure (if it happens at all) will take between 6 – 18 months.

The follow-up work on the projects varies enormously from project to project dependent on the specific requirements, the project status and the individuals (coach and developer) concerned. Broadly speaking the work can be characterised as follows:

- Further development work to further refine / improve the business model, remove barriers, address investor concerns and finalise the business plan. In the case of Double Link for example the business model has been significantly changed to also include the distribution of cook stoves to create further revenue potential and shore up the business model. While this complicated the business plan which was initially presented, it is a good example of the initiative of an entrepreneur who considers all potential sources of income for the business model.
- Investor/ Funder identification: once the business model is investor ready it can be targeted to specific investors / funders. The coach and the developer identify prospective funders and develop strategies to approach them, often calling on the coach's personal contacts or contacts and introductions through the PFAN network. For the majority of projects at hand from the first cycle potential grant funders were identified to further support development before private sector finance can be raised for scaling the model. This was true of Eastern Rice and African Bamboo. For Lusoti (the Mozambican property development) corporate / property investors are being targeted in conjunction with commercial bank finance. A private equity interest was identified for the !am Energy project in South Africa.
- Once the investment / financing discussion has started the developer often needs support and guidance in responding to questions and presenting supplementary information. The information requested can be complex and voluminous. Investors will always cross reference the information they receive with other sources and previous similar projects. The investigative process is also iterative and can drag on over many weeks / months with responses to an initial set of questions often leading to a new round of questions.
- If the discussion proceeds positively then the developer may need help in negotiating the investment / financing term sheet, which outlines the terms and the conditions of the

financing. The developer is often inexperienced at this and is not familiar with the terminology and concepts, yet this is a critical stage, which will decide the final terms and conditions of the financing contract.

- Finally once term sheets have been agreed and offers committed the project is subjected to a final round of due diligence and must meet conditions precedent before the funding can flow. If required, PFAN coaches can provide support during this process to ensure that the deal goes to financial closure. Often also the coach is requested by either the developer / investor to remain involved in the implementation of the project to support monitoring and evaluation procedures.

Many of the specifics of structuring a financial transaction require specialist services, sometimes beyond the scope and capability of the coaches. In the new iteration of PFAN this has been accounted for in the formation of a specialist financing facilitation team, headed up by Nagaraja Rao.

For the 2nd Round of projects, funding has been secured from PFAN legacy operations for supporting a limited number of projects for a further six months. Contracting for these is currently underway. The objective is to get as many of the finalist projects to financial close as possible.

7. Research Component: Activities and Results

7.1 Objective and results

The overall objective of the Research Component was to draw on the case study examples, raw data and project development experience generated by the Network Component to analyse the investment requirements and risk characteristics of adaptation related projects, with the aim of drawing practical based research conclusions to feed into the policy dialogue for shaping an enabling environment for private sector finance, to build a more complete and practical understanding of the opportunities (and barriers) for private sector finance of adaptation, and to feed back into the Network Component by refining the CTI PFAN methodology for adaptation related projects.

The work culminated in three research papers, and a final summary paper. The three research papers are:

- (i) Druce, L., Kempa, K., and Moslener, U. (2016), Characterising Climate Adaptation of MSMEs: Evidence from Sub-Saharan Africa, Research Component of the CTI PFAN Adaptation Workstream.
- (ii) Druce, L. and Moslener, U. (2017), Reconciling the Top-Down and Bottom-Up Perspectives on Adaptation, Research Component of the CTI PFAN Adaptation Workstream.
- (iii) Grüning, C., Kugler, C., and Moslener, U. (2017), Climate Risk in Adaptation Projects, Research Component of the CTI PFAN Adaptation Workstream.

The goal of the Research Component is to analyse the investment requirements and risk characteristics of adaptation related projects through practical based research drawing on, and feeding back into, the Network Component. In December 2016 the final draft research paper Characterising the Adaptation of MSMEs was submitted to the Network Component. In January 2017, the research papers Climate Risks in Adaptation Projects and Reconciling the Top-Down and Bottom-Up Perspectives on Adaptation were submitted along with the Final Summary Paper. A summary of the three research papers is included below.

7.2 Research Papers

Work Package 1: Conceptual Foundations of Adaptation

In part one of the research, we focus our analysis on adaptation activities carried out by private actors, which are disproportionately vulnerable to climate impacts, namely MSMEs (Druce, Kempa, and Moslener, 2016). Many MSMEs also struggle to obtain finance from the formal financial system, known as a ‘financing gap’. Therefore, climate change has the potential to increase costs faced by MSMEs, and this may further increase the ‘financing gap’.

Most of the research on adaptation to date has focused on public spending on adaptation rather than private adaptation, although it may be likely that most of the adaptation financing needs appear with the private actors affected by climate change. Hence, we reflect on adaptation first on a conceptual level and then move to a characterisation and typification of adaptation projects. We suggest a categorisation of adaptation projects along the following criteria:

- (i) Anticipatory vs. Reactive: this category differentiates adaptation projects into two categories based on the trigger of the adaptation measure: coping with the damages caused by climate change (Reactive adaptation) or increased resilience to climate change threats (Anticipatory adaptation).
- (ii) Main vs. Component: an investment may be a wholly adaptation-related project (Main), or adaptation may comprise only a component within the larger business model (Component). This category seeks to determine whether the main business activity is itself an adaptation activity or whether adaptation is a component that is a part / attached to the main activity.
- (iii) Private vs. Public Good: this category explores whether privately provided adaptation provides a private good (only the private actor / MSME itself profits from the adaptation measure) or generates (accidentally or deliberately) public goods (other actors also benefit from the adaptation measure of the private actor).
- (iv) Downside vs. Upside: Downside adaptation is defined as an adaptation activity that is a reaction to the negative effects of climate change to business as usual. That is, a private actor conducts an adaptation measure to reduce the negative effects or risks of climate change (e.g. droughts) on its business activities through an adaptation measure. In contrast, Upside adaptation comprises adaptation projects that are based on new opportunities created by climate change (e.g. production and sale of rain water harvesting systems).

Based on this categorisation, we generate and empirically analyse a unique dataset based on adaptation project proposals within the CTI Private Finance Adaptation Network. The proposals

were submitted under two Calls for Proposals of the CTI PFAN Pilot Programme for Financing Adaptation Related Climate Change Projects targeting adaptation projects that seeking financing or investment from commercial or private sector sources. Prior the main analysis, we first identified and analysed projects that actually were adaptation projects (247 projects). Second, we categorised the actor as either private / MSME or public / NGO and analysed the adaptation measures of MSMEs (105 projects) and compared these to those of public actors or NGOs (142 projects).

Our analysis shows that adaptation activities performed by private actors, i.e. mainly MSMEs, are often components of the respective main business models with the aim of adapting this business to the effects of climate change. Furthermore, the majority of businesses react to already observable effects of climate change rather than adapting based on anticipated future effects. A notable result of this analysis is the number of upside adaptation activities performed by MSMEs. This result is also complemented by the analysis undertaken in Work Package 3. Substantial investment in adaptation and resilience is already occurring in the private sector, financed by private capital, but often not labelled as 'adaptation'. The whole economy is reacting to structural change, and private actors within the economy must continually form expectations about the future business environment and adjust their business models accordingly. This may be through coping with the (climate) risks (downside adaptation) or the identification of a new business model (upside adaptation). However, in line with the findings of the network component "“what constitutes an adaptation project [is] unclear to project developers”", many MSMEs do not explicitly label their activities as 'adaptation'.

Overall, we can see that private actors, such as MSMEs, adapt their activities to, from their perspective, exogenous structural changes, which may also be caused by climate change. Our results show that MSMEs are typically active in two types of adaptation projects: (i) they start a new business model that seeks out opportunities created by climate change or (ii) try to reduce the risks or negative effects of climate change by adding an adaptation component to their non-adaptation investment. Hence, next to adapting current business practices to deal with climate change impacts, we can also see numerous innovative business models that seek out economically profitable new opportunities created by climate change.

Work Package 2: Adaptation and Risk

Adaptation investments are taking place against a background of the unprecedented uncertainty accompanying climate change, its immediate physical impacts, as well as potential indirect consequences that might ensue. This uncertainty and lack of historical precedent, coupled with other market-imperfections are often discussed as one reason inhibiting investments in adaptation from required volumes. In part two of the research, we seek to examine how incomplete information on climate change influences the investment decision for adaptation, to identify different types of incomplete information, how these impact the investment environment, and to discuss which instruments are typically used to deal with the different forms

of incomplete information financed (Grüning, Kugler, and Moslener, 2017). In particular, we want to propose a new framework to discuss climate risk and adaptation.

This is essentially initiated by bringing the macro concept of adaptation down to the project level. We identify a hedging property of some adaptation projects when taking the macro-perspective. We show that adaptation projects or portfolios of adaptation projects may provide a climate impact mitigation effect (a natural hedge) at an aggregate macro level. This is a valuable contribution from an economic perspective (positive externality) but does not translate into a financing advantage. Looking at adaptation projects at the individual project level, the investment either carries a negative connotation (reducing harm) in which case the benefit of the project may sensibly be measured relative to a falling profit baseline. But negative impacts of climate change (although reduced by the project) may still appear in the form of falling profit. In cases where the adaptation project is exploiting beneficial opportunities, the business model depends on climate change. It may therefore more often than not need certain assumptions about expected climate change which are still less common for investors.

We also suggest decomposing statements about changing impacts into (i) a statement about a trend or a shift and (ii) a statement about the statistical certainty or the degree of exactness that is connected to that statement. Consequently, we suggest using the term climate risk (or uncertainty) when referring to the statistical values or the range of a project rate of return. If applied to individual projects in the context of climate change and learning over time, this has several consequences. If a certain climate related risk or uncertainty of a project rate of return rises, this then means that the expectations become less accurate. If, however, due to increased research more information becomes available about what sea level rise to expect in a particular region this may well mean that the sea level rise is increasing but the risk is falling. The latter perspective is more likely to motivate project design in anticipation of the best available information about expected climate change. In other words include climate trends into project planning and then be transparent about the quality of the projection.

In many cases it can be expected to be easier to incorporate the trend into project planning, than to deal with the incomplete information of what exactly will happen. We argue that this incomplete information is something where adaptation may be more fundamentally different from other, e.g. mitigation projects.

This study seeks to examine how incomplete information (colloquially: “risk”) on climate change influences the investment decision for adaptation, to identify different types of incomplete information, how these impact the investment environment, and to discuss which instruments are typically used to deal with the different forms of incomplete information. Some of the reasons being that the project itself does not receive a reward for contributing to risk-mitigation at the macro level, and also that investors are much less inclined to engage in projects which carry components of uncertainty or even ignorance – as it is the case for adaptation related projects.

Incomplete information is not a new phenomenon when taking investment decisions. Au contraire, taking investment decisions under incomplete information is business as usual in financial markets, where investments are typically mainly characterized through their risk-return-profile. The actual payoff of an investment is typically determined once a future state of the world

becomes known. We present and discuss some approaches that have been developed to deal with risk, uncertainty and ignorance. The fact that the proper choice under uncertainty (let alone ignorance) cannot be determined purely based on rationality, but requires additional presumptions, increases the challenge – not only to mobilise commercial investors but also to consider government intervention to correct the consequences of asymmetric information or intervene in some other appropriate way.

The study concludes with the provision of a number of promising starting points for future in-depth research, including asking the rather fundamental questions to what extent the criterion of an efficient market intervention or support programme is affected by the fact that decisions at hand require criteria beyond rationality. Essentially, the paper shows that the nature of incomplete information in the case of adaptation is important and matters for financing, but constitutes a novel challenge.

Work Package 3: Synthesis and Operationalisation

In part three of the research, we seek to reconcile the top-down and bottom-up perspectives on adaptation (Druce and Moslener, 2017). A number of studies claim that current adaptation investments are far from sufficient and that much more investment in adaptation is required. Scaling up both public and private finance is needed to deal with the impacts of climate change. However, much of the discussion on adaptation to date has focused on public spending. Private adaptation investments are difficult to identify and classify and are often not included in global climate finance estimates. Parties to the UNFCCC have committed to increase financial resources to assist developing countries with climate adaptation and mitigation to approximately USD 100 billion per year from 2020. This target includes new and additional private finance, although it has not yet been determined how this will be mobilised, or how much is expected.

Private adaptation investments are typically mainstreamed into business activities or a broader risk management process. Therefore, if we know that the bulk of the adaptation investment will be normal private investment, the challenge becomes how to facilitate this process. It is the natural role of public actors to use domestic spending and policy actions for planned public good provisions to achieve the social optimum (the welfare of all individuals within the economy). This is not to suggest, however, that private actors should be left alone to conduct their economic activities without public intervention.

For private actors, implementing activities and making investments is more complex. There are also market imperfections, or barriers, systematically keeping private adaptation projects from materialising. The market imperfections identified are positive externalities, for example benefits shared by a third party which do not produce a financial return to the investor; an imperfect capital market, or the lack of a liquid, long-term capital market which may curb adaptation investments; asymmetric information or a lack of awareness of climate impacts or risks, or of existing technologies and solutions to cope with the consequences; other potentially unjustified market imperfections; or no significant barriers holding back the flow of finance.

Two approaches have been identified which present tangible ways for public actors to mobilise additional private investment:

- Correcting the market imperfection, for example altering market institutions or regulation, or providing tariffs, subsidies, taxation, restrictions on trade, etc.
- Compensating the private actor for the effects on the risk-return profile: without correcting the market imperfection, commercial actors can be compensated for the negative effects of the market imperfection on their risk-return profile. These approaches (correcting the market imperfection or compensating for its effects) suggest broader policy goals which could facilitate additional private adaptation finance but which not necessarily specifically related to adaptation projects but rather maximising the welfare of all individuals in the economy.

However, there might still be a substantial gap between private adaptation investments realised and adaptation activities and finance required to avoid an adaptation gap (from an adaptation planning perspective). If this is a result of urgency, or timing, then public actors still have the option to intervene directly and push private investments forward.

As described above, among the many actors and their roles to facilitate adaptation, two prominent groups are identified. Governments are responsible for adaptation planning, while private actors implement adaptation-related projects to protect and enhance their business activities. In order to actually observe adaptation activities, we need to also explore the individual actors within the economy, and their motivations to invest in adaptation. We call this the actor-based, or the bottom-up perspective. The difficult role of the government is to prioritise areas of intervention. Therefore, we recommend that the actor-based (bottom up) perspective is integrated into national adaptation planning, rather than limiting the process to top-down planning approaches.

Governments and public finance institutions can enable businesses to unlock their creativity by supporting enhanced knowledge generation through, for example, climate data and risk assessments, and facilitating innovation through support for research and development or compensating for technology spillover. Public actors should also use the diversification potential of adaptation-related projects, as some might be negatively correlated with other climate risks.

8. Research Dissemination Workshop

A Dissemination Workshop on Climate Adaptation Finance was held at the Boma Inn, Nairobi on 17 February 2017. Based on the experience within the framework of the CTI Private Finance Advisory Network (CTI PFAN) Africa Climate Change Project Stream, the research component has conducted empirical analyses on the investment requirements and risk characteristics of adaptation-related projects as outlined above. At the Dissemination Workshop, Prof. Dr. Ulf Moslener and Laura Druce presented the main methodologies and findings from the three research papers.

The presentation was structured into three areas capturing different, but complementary aspects of adaptation projects.

- I. The first part focuses on the fundamentals and categorisation of adaptation projects conducted by private actors, in particular Micro, Small and Medium Enterprises (MSMEs).
- II. The second part focuses on the relation of climate risks and adaptation, analysing how adaptation projects might reduce or mitigate climate impacts as well as how uncertainties concerning climate change affect adaptation projects.
- III. The third part introduces two distinct perspectives on adaptation: adaptation planning by public actors, and adaptation projects implemented by private actors. We attempt to reconcile these perspectives by providing recommendations for public actors to overcome market imperfections and facilitate private (adaptation) investment.

The Dissemination Workshop provided the opportunity for adaptation experts and practitioners to join the discussion on the research methodologies and findings. A panel of experts discussed the Research Component presentation and facilitated a lively discussion with practitioners in the room.

These discussions led to the following ‘take aways’:

- Private actors have a significant and real role to play in climate change adaptation and as proved by initial experience of PFAN ACCPS activities it is possible to mobilise private sector finance to support those activities – i.e. grant funding is not the only financing response.
- The risks entailed in climate adaptation projects are essentially the same as for other investment projects and activities albeit that the risk may be considered heightened through increased “uncertainty” and “ignorance”. Conversely there are potential upsides and positive benefits from these risks, which may help in developing hedging and portfolio strategies.
- From an investment and implementation perspective the insistence on a strict definition of adaptation and adaptation projects is not necessarily useful: it is confusing for investors and few define their activities in terms of adaptation, even though, as we established, climate change is a major driver of project development. It is important that we don’t get too constrained by the definitions since many projects / activities include complementary

adaptation and mitigation strategies. As a consequence, we may need to be less rigid in our thinking and approaches and find flexible ways to integrate and coordinate our thinking and approaches around adaptation and mitigation, to recognise realities on the ground and facilitate effective project financing and implementation.

- However, it remains important that for political and procedural reasons and in the context of the framework convention that we continue to differentiate between adaptation and mitigation and even more important that we monitor and evaluate in terms of these parallel streams / approaches. In this connection, it is critical that we ensure that the MRV systems capture the activity in the (M)SME sectors that are currently not being captured (vis the PFAN ACCPS projects) and that we find a way to ensure that (M)SME projects benefit from and participate in the funding streams that are being made available through the various channels of the UNFCCC Financing Mechanism (e.g. the Green Climate Fund) and which risk passing them by under current approaches.

9. Overall Challenges and Lessons Learned

CTI PFAN could play an important role in helping national governments include the bottom-up perspective in identifying national climate priorities. For example, identifying possibilities and plans for scaling up and replication, including adaptation benefits in terms of cost-reductions or market opportunities. One important role CTI PFAN could play in relation to the barriers analysis for project development, is to identify where incentives to increase private investments could be created at the national level, for example the regulatory framework.

Taking this approach into account, public sector partners were identified within the targeted countries and sectors. These potential partners include: the Africa Enterprise Climate Fund (AECF), currently being managed by KPMG Kenya, SEED, Technoserve, The Innovation Hub of South Africa, Green Cape, Aspen Network of Development Entrepreneurs (ANDE), and Impact Amplifier.

From an economic perspective, just the fact that a project is adaptation-related does not justify public intervention. In general, public actors are in the best position to provide public goods for the benefit of society and which are typically provided outside conventional markets. By working with projects which had already had some form of interaction with other public actors we were able to leverage off funds already spent on these projects.

For private actors, implementing activities and making investments is more complex compared to public adaptation planning. There may be 'barriers' systematically keeping private adaptation projects from materialising. Tackling these barriers or market imperfections is broader and not always specifically related to adaptation projects. Addressing the market imperfections – presuming they require changing the regulatory environment in which markets operate – falls largely within the remit of national governments to facilitate structural change. This also presents a tangible way for public actors to facilitate private investment, i.e. adaptation as well as non-adaptation related investment. However, there might still be a substantial gap between what private actors do and what needs to be done, which also relates to adaptation investments and the 'adaptation gap'. If this is a result of urgency, or timing, then public actors still have the option to intervene directly and push private investments forward.

10. Replication / Scale-Up, Policy Mainstreaming and Leverage of Additional Finance

10.1 Outreach Missions

Major outreach missions were undertaken by Peter Storey and Thaven Naidoo to South Africa, Mozambique and Kenya. These missions were designed at promoting the IDRC – CTI PFAN Adaptation Scale Up programme, consolidating existing relationships and establishing new contacts in the adaptation space. Key government stakeholders, private banks, DFI's, and business representatives were engaged during the missions. Our objective was to highlight the work we are doing in raising private sector finance for adaptation, to align our work with work currently being done in various sectors, to identify sources of funding and potential partnerships and to expand the network. It was evident from the outreach that there is much resonance for work being done in adaptation as it seems to be the emerging focus area for climate change activity, and that there is particular interest in seeing the private sector become more engaged in financing projects in this sector. It seems clear that there is little on the ground activity to give direction to how the private sector may become involved in financing adaptation and the current IDRC program of work is tackling this directly through project activity and not just conceptual work.

10.2 Participation at Events

1. A side-event presentation was held at the UNFCCC Bonn Climate Change Negotiations in June. The side event provided information to the conference delegates on the CTI PFAN Adaptation Scale-Up Stream and was a valuable experience, which highlighted the perceived opportunity for the role of the private sector and at the same time the lack of models on how to engage the private sector in financing adaptation. There are ongoing discussions with REEEP around creating a media strategy to improve the awareness of the activities being carried out, with a particular focus on the success of the model of bringing in private sector funds.

Annex 030 - Bonn Presentation

2. Presentation of the Adaptation work stream at the conference "Our Common Future under Climate Change" July 2015, Paris. The IDRC supported the participation of the programme coordinator, Thaven Naidoo, at the scientific conference, "Our Common Future under Climate Change", held in Paris in July 2015. The presentation was part of a side event titled

“Climate Finance at Scale – Emerging opportunities”. The event highlighted the role of private sector finance in meeting the funding for dealing with climate change, but also showed that there is a need for CTI PFAN to create greater awareness of the climate change work-stream.

Annex 031 - OCF presentation <https://app.box.com/s/mid3r11lvcxgwqyi7oy87sgb6ym4ug0r>

3. CTI PFAN participated in the ANDE (Aspen Network of Development Entrepreneurs) event in Cape Town, where issues around the innovation ecosystem were discussed. This was a useful networking event, and it seems that ANDE can be a useful network partner as they provide business accelerator services at a global level and also conduct research around their work. In a recent report from their global experience in supporting businesses, they have found that the outcome of support is less dependent on the quantity of time spent with the projects, but rather, is much more dependent on the work put in by the project developers themselves!
4. CTI PFAN was invited by the African Development Bank to do a presentation on our project development and financing facilitation process for a Green Economy/Climate Change Adaptation workshop for government departments in Mozambique. The theme of the workshop was on financing for the Green Economy/Climate Change Adaptation, and our presentation provided the perspective of the private sector. From discussions held with various government departments informally, it was clear that many government departments have absolutely no idea of how to engage the private sector, despite the fact that some departments have successfully implemented public-private partnerships (PPPs). While this is an interesting area for CTI PFAN, we have had several discussions around this, and the ground work required to hand-hold government ministries through the process of designing and developing PPPs is outside of our current resource capacity.
5. CTI PFAN organised a mini-investor forum at the South African International Renewable Energy Conference (SAIREC), held in Cape Town in early October (04.10 – 06.10); the event was organised in partnership with SANEDI, The South African National Energy Development Institute and included a key note address from the French Development Agency, to report on the impact and outcomes of their credit line for clean energy and climate projects as well as a moderated panel discussion on scaling climate change projects, led by Martin Hiller of REEEP. The culmination of the forum was the investor pitch from 4 projects from the CTI PFAN development pipeline including, lam Energy, one of the finalists from the Climate Change Investor Forum, sponsored by IDRC. The event was well attended by over 60 investors and related stakeholders, including the French Ambassador to South Africa and got a special mention in Minister Tina Joemat-Patterson’s closing address to the plenary session of the SAIREC conference, which highlighted the significance and role of private sector financing of climate related projects. The SAIREC event also gave us the opportunity to meet other organisations interested in our work and with whom we could partner for future events. Among these organisations were Impact Amplifier, Gamiro/Khanna Energy, GCX Africa, Prometheus and Swisscontact.

6. CTI PFAN hosted and participated in a number of side-events at COP21 in Paris, including a joint event co-hosted with IDRC and the Frankfurt School, “The Private Finance Gap: Challenges & Opportunities in Funding Adaptation”, which showcased the results and learnings of the IDRC funded adaptation programme to date. The event took the form of a panel discussion moderated by Mark Redwood and featured Ulf Moslener, Head of the Research Component from the Frankfurt School, Edward Cameron, CEO of Business for Social Responsibility, Martin Hiller, DG of REEEP, Dominique Charron of IDRC and Peter Storey of CTI PFAN. The event was extremely well attended by over 120 COP21 delegates and a lively debate around the role of private sector finance in adaptation ensued, which drew on experience and examples from the IDRC adaptation work stream and outlined future directions for researchers, financiers, and project developers. The panellists all agreed that the private sector has a vital role to play in funding adaptation and that gradually companies are embracing this challenge as they understand climate change and start to develop and test viable business models on the back of adaptation opportunities. This is where the IDRC – CTI PFAN work is so valuable in supporting such businesses and helping the further development and propagation of successful models. IDRC engaged IISD to make a video of the side-vent and this video is available for viewing on the PFAN website at:

http://cti-pfan.net/resource_document/the-private-finance-gap-challenges-and-opportunities-in-funding-adaptation/

10.3 Exploration of a special fund for adaptation projects

A further important outcome of the first outreach mission was the opportunity of potential cooperation with DBSA’s Green Fund and the IFC in Mozambique to create a financing debt fund for which CTI PFAN will provide the project pipeline. Both the IFC and the Green Fund were struggling to identify suitably bankable projects for their adaptation funding and we believed that CTI PFAN would be able to address this issue. A similar approach was also being discussed with the GKI in Kenya to access and mobilize some of Kenya’s allocation from the Adaptation Fund.

During this outreach mission, the IFC indicated that they required the participation of a commercial bank as a partner for this proposal to move forward. The second outreach mission to Mozambique was important as there was still the possibility of securing this dedicated tranche of funds from the PPCR monies at the IFC, which were still unallocated, and to follow up with EcoBank who were in the process of establishing themselves in our first visit. The role of CTI PFAN would then be to develop the project pipeline for Mozambique to take up these funds.

In our second trip, EcoBank confirmed their interest in partnering with PFAN to identify and develop a pipeline of projects which could then be funded using a blended mix of PPCR and commercial bank funding, but when we went back to IFC, following this meeting, they informed us that they were in the process of committing the PPCR funds to a forestry project. While IFC were interested by our proposal to leverage the PPCR funding, they had not been able to convince themselves about the commitment of the local banking sector to the climate change sector and their readiness to provide their own funding to the blended pool as required by the PPCR conditions. They were also concerned about the time it would take to identify and develop the pipeline of projects, although we had spent some time convincing them of our approach in this respect and showing them the existing pipeline, which would be available.

Notwithstanding the disappointment of not being able to pursue this funding opportunity with IFC and EcoBank we agreed to stay in close contact with both institutions to monitor arising opportunities and exchange notes periodically. This experience demonstrates the need to react quickly and more concertedly to such opportunities when they present themselves. These kinds of opportunities could make a substantial difference to the overall work-stream and ensure that we get much more traction, but are difficult to justify as they are not accounted for in the initial project proposal and would require re-allocation of existing funding.

10.4 Induction of new members

- Peter Oldacre of Skypower: Skypower is a project developer cum investor which is able to take on early stage development risk for selected projects in the environment and energy space;
- Michael Goldblatt of Lereko Metier Capital: Lereko is a Johannesburg based fund manager which manages a number of funds targeted at clean energy and climate change.
- Impact Amplifier: An organization which develops project in the Green Economy sector;
- Climate Innovation Center, Pretoria: An organization which provides incubator support to climate related projects.

As a result of this outreach activity MOU's have been shared with CTA, the Confederation of Business Associations in Mozambique and the South African National Biodiversity Institute (SANBI). We are still awaiting ratification of these MOUs.

10.4 Ethical Issues

CTI PFAN ensured and respected the confidentiality of all developers' project proposals and other information supplied. Proposals were not copied for any purposes other than for analysis and evaluation of the project. As a matter of convention and practicality, confidentiality agreements were not signed in respect of the receipt and analysis of project proposals. Developers had the right to choose to include the following optional disclaimer on the cover sheet of their submissions, recognizing that it is not a legally binding agreement:

"This project proposal is confidential and is presented to CTI PFAN solely for the purpose of evaluation by CTI PFAN in respect of receipt of CTI PFAN development support and financing advice. This proposal may not be reproduced or redistributed in whole or in part. By accepting a copy of this plan, the recipient agrees not to reproduce or disclose the contents of this plan to third parties without the prior written consent of its authors."

Upon confirmation that the project will receive CTI PFAN coaching and advice Project Developers / Proponents had the right to request confidentiality and non-circumvention agreements to be negotiated and signed between the developer and the respective assigned PFAN Consultant.

The research component adhered to the same confidentiality regarding the dataset of adaptation projects provided by the network component. The research component also sent out a questionnaire to all project developers who submitted a project proposal to the network component. The questionnaire included a statement of intent and all responses were treated anonymously and confidentially. All data gathered from the dataset and questionnaire was analysed and reported on an aggregate basis only, and no individual responses or proposals were reported individually. The analysis of project proposals included in the dataset was conducted using the project number assigned by the network component. Information ascertained was only used by CTI PFAN Management and the Research Team from Frankfurt School.

11. Conclusions and Recommendations

11.1 Network Component

The programme was able to get off the ground rapidly, building on the formative adaptation work that had been undertaken by PFAN supported by USAID, and the well-established PFAN mitigation methodology. The RFP that was developed was obviously substantially different for adaptation, and a significant realization is that although there was a commitment to working with adaptation projects, the terminology used in UNFCCC circles are not necessarily relevant to project developers or financiers. This early realization allowed us to make a change in the work-stream, naming it the “Africa Climate Change Project Stream”.

The second key difference was that there is little overlap in project developers in the mitigation arena and that of adaptation. In order to get an adequate number of projects for the programme, we had to develop a special database of people from across Africa who are involved in climate change beyond just mitigation and renewable energy. The number of people and events that occur around adaptation has increased substantially from the period of the initial groundwork and while keeping track of this is extremely difficult, it is important to maintain some form of scoping overview of these activities to understand how the PFAN methodology can be further refined for this changing environment.

While there seems to be growing convergence between adaptation and mitigation, there remain clear differences in project development, financing and implementation, with adaptation projects being harder to define precisely. Perhaps, considering a definition which focuses more clearly on resilience to climate variability would be more appropriate in the future for defining project eligibility.

The programme succeeded in taking into account lessons from the 1st Round of project development and incorporating these into the 2nd Round. However, there are many other areas for innovation, some of which are being introduced in PFAN 2.0, such as the Workflow Management System and a dedicated financing facilitation service over and above the provision of coaching.

While the Investor Forum is the main event for the showcasing of projects, additional events need to be considered, such as the investor roundtable concept, which was explored with Impact Amplifier but not implemented, the SAIREC showcase and the Investor Dinner, which was hosted with the East African Venture Capital Association. These events allow projects to be known more widely by the investment community and as the role of Impact Investing in providing private sector funds for these kinds of projects increases, there will be many more opportunities for showcasing projects at other events.

There are many emerging opportunities for the application of the PFAN methodology for raising private sector finance for adaptation projects. This becomes especially relevant as greater focus is placed on the Sustainable Development Goals, and the need for on-the-ground project

development is made more evident. The programme work-stream has laid a solid foundation for the methodology to be applied more widely and more specifically to the SDG's.

One of the key outcomes of the IDRC – CTI PFAN Adaptation Stream Activity is that Adaptation has effectively been mainstreamed within the new PFAN. Under its new programmatic structure with UNIDO and REEEP, PFAN's core mandate has been explicitly widened to include Climate & Clean Energy Projects. PFAN's success is now not just measured in terms of CO2e reduction (Mitigation) but also in terms of increasing climate resilience and / or reducing climate vulnerability as well as of course in terms of US Dollars of financing leveraged. In this respect PFAN's core clientele has also been expanded and the New PFAN also has the mandate to create investor ready pipeline for other Donor activities and institutions, including other UN activities, DFIs, RDBs and MDBs and the funds GCF and GEF not just private sector investors. In recognition of this the new PFAN's branding and logos have been updated and the promotional tag line of the PFAN activity is now – **“Accelerating Investment for Climate & Clean Energy”**.

In this connection too, future calls will automatically include the climate component as an integral part of what PFAN does. Adaptation – or Climate as we prefer to call it externally for reasons discussed in this report – is no longer an add-on but at the core of what we do. The first call of this nature has just been released in Asia as the Project development and Financing Initiative for Climate and Clean Energy in Asia. The relating investor forum is branded as the Asia Forum for Climate & Clean Energy Financing (AFCCEF). This represents a conscious effort to accord adaptation the weight and exposure it needs in terms of mobilizing investment and finance from both the private and public sectors and is a direct result of the work performed under the IDRC Funded Programme.

Finally, the key findings / outcomes of the the IDRC – CTI PFAN Adaptation Scale-Up programme can be summarized as follows:

- As proven by the finance raised for projects and the level of project development activity captured by the Programme, the Private Sector does have a significant and real role to play in climate change adaptation and it is possible to mobilize private sector finance to support those activities, meaning that grant or donor funding is not the only financing response.
- The risks entailed in a climate change adaptation project are essentially the same as for other investment projects and activities, albeit that the risk may be considered heightened through increased “uncertainty” and “ignorance”. Conversely there are potential upsides and positive benefits from these risks, which may help in developing hedging and portfolio strategies. Some investors might seek to reduce downside risk by adjusting existing portfolios to reduce the exposure climate related risks. As to policy recommendations the case of rewarding the hedging (and risk diversification) service of adaptation projects or adaptation portfolios appears tractable: In the medium to longer run one can expect a market demand for hedging specific climate impacts. Then carefully constructed portfolios may be able to serve that demand and a potential willingness to pay for the corresponding hedge (a premium) could reward the project financier. As this would constitute a case of financial innovation a government could consider supporting pilots to construct such specific adaptation portfolios and test the market demand – merely to compensate potential suboptimal incentives of innovation in general. Alternatively, the development of ‘adaptation’ or ‘climate change

impact' indexes might help to benchmark existing portfolio against exposure to climate impacts

- From an investment and implementation perspective the insistence on a strict definition of adaptation and adaptation projects is not necessarily useful: it is confusing for investors and few define their activities in terms of adaptation, even though, as established, climate change is a major driver of project development. It is perhaps important not to get too constrained by the definitions since many projects / activities have both adaptation and mitigation benefits. In consequence there is need to be less rigidity in thinking and more fluid ways to integrate and coordinate thoughts and approaches around adaptation and mitigation, to recognize realities on the ground and facilitate effective project financing and implementation are needed.
- It remains important to recognise that, for political and procedural reasons and in the context of the Framework Convention, there is need to continue to differentiate between adaptation and mitigation and even more important to monitor and evaluate in terms of these parallel streams / approaches. In this connection it is critical to ensure that the MRV systems capture the activity in the (M)SME sectors that are currently not being captured (vis the PFAN ACCPS projects) and that a way is found to ensure that (M)SME projects get to benefit from and participate in the funding streams that are being made available through the various channels of the UNFCCC Financing Mechanism (eg GCF) and which risk passing them by under current approaches.
- In view of the above it is envisaged that Blended Finance can play an important role and there is need to find new ways of using scarce public funds to mobilize private sector activity and investment.
- Bundling and portfolio approaches to pool assets and then securitise them through the wholesale capital markets need to be developed. While this is widely recognised in the meantime, nobody has yet come up with a really robust and viable approach. PFAN is also working on this and has an advantage in being able to originate and prepare the underlying assets. Further work in this area is however needed.

Putting all these insights and learnings in to perspective it is clear that private sector finance has a major role to play in climate change adaptation, but that there is still significant work to be done on all fronts: raising awareness of the issues, capacity building, support to project developers to help them better prepare their projects, support to investors to help them understand the context and relate to the business models, development and deployment of new funding instruments and approaches to optimize and leverage funds' deployment from public and private sectors. Above all it is critical to ensure that this support is also made available to (M)SMEs in developing countries who are some of those most affected by the impacts of climate change and the resulting risks of instability and vulnerability and at the same time at the forefront of some of these developments and innovations.

11.2 Research Component

The overall objective of the Research Component was to draw on the case study examples, raw data and project development experience generated by the Network Component to analyze the investment requirements and risk characteristics of adaptation related projects, with the aim of drawing practical based research conclusions to feed into the policy dialogue for shaping an enabling environment for private sector finance, to build a more complete and practical

understanding of the opportunities (and barriers) for private sector finance of adaptation, and to feed back into the Network Component by refining the CTI PFAN methodology for adaptation related projects.

The Research Component was structured into three work packages capturing different, but complementary aspects of adaptation projects. The first paper focuses on the fundamentals of adaptation activities conducted by private actors, in particular Micro, Small and Medium Enterprises (MSMEs) (Druce, Kempa, and Moslener, 2016). It lays the theoretical foundations of adaptation projects used throughout this research. Furthermore, we performed a broad empirical analysis based on real project data from the CTI PFAN Adaptation Workstream. The second paper focuses on the relation of climate risks and adaptation (Grüning, Kugler, and Moslener, 2017). We analyze how adaptation activities might reduce or mitigate climate impacts as well as how uncertainties concerning climate change affect adaptation projects. Finally, the last paper introduces two distinct perspectives on adaptation: adaptation planning (top-down); and adaptation projects being implemented by private actors as normal private investment and not labelled as adaptation (bottom-up) (Druce and Moslener, 2017). We attempted to reconcile these perspectives by providing recommendations for public actors to overcome market imperfections which may hinder private investment, and facilitate structural change. We highlighted the current role of CTI PFAN and IDRC in this process of reducing or eliminating these barriers to advance bankable adaptation projects and try to provide suggestions and food for thought concerning future actions and initiatives.

In a next step, the Research Component together with the Network Component team plan to prepare a Blog post, which will be shared with IDRC before publication. The Blog aims to communicate the main research findings and the take-aways from the Dissemination Workshop and can be circulated around our various networks.

Thaven Naidoo
Adaptation Coordinator
June 2017

12. Annexures

Annex 001 – Background paper

<https://app.box.com/s/829j1xx2kk63kq0rhec0aru5s5iryckz>

Annex 002 – Executive Summary

<https://app.box.com/s/nka3urv4f21cpnxx2ss6la2g4opd8jc5>

Annex 003 – Workshop report

<https://app.box.com/s/ubnenvr6ubwv2l1nsuauk3w89puogx>

Annex 004 - Report 1

<https://app.box.com/s/0b1jy39r46su0wfh9synu15l2733i3sg>

Annex 005 – Report 2

<https://app.box.com/s/bthjql05rcjao8swo4nj4ui23db9w8g>

Annex 006 – Report 3

<https://app.box.com/s/pgj3x3h5tu8wdkd46y4g15zgcfc7mj>

Annex 007 – Report 4

<https://app.box.com/s/tm6aio3tevpn6t9e3divyvi012d8etpg>

Annex 008 – Draft report 5

<https://app.box.com/s/7fpcpnornstm77nw4rc74wjp495mmv6>

Annex 009 – First RFP

<https://app.box.com/s/sumilhva86p65zgd1etox4ai961iu749>

Annex 010 – Second RFP

<https://app.box.com/s/5bifnbmn2f0q4wjty3o6skvs40k5rnlz>

Annex 011 – List of projects from 1st RFP

<https://app.box.com/s/e99ecbmwyct2app2po2skht1mmau81wa>

Annex 012 – List of projects from 2nd RFP

<https://app.box.com/s/hb0belepogk6gmo8takm9zgrdte1t4sl>

Annex 013 – 1st Scoring matrix

<https://app.box.com/s/5uakzbp78vnc8npm0q0ymw0nzw0qjgh0>

Annex 014 – 2nd scoring matrix

<https://app.box.com/s/yjicu8u2swjwfgku1h1p343k6h9reswr>

Annex 015 – Shortlisted projects from 1st Round and coach allocation

<https://app.box.com/s/3yyx9p3262xbobc4vxlake3to4etagy9>

Annex 016 – Shortlisted projects from 2nd Round and coach allocation

<https://app.box.com/s/wjie9apn4f0aqh40b0u1gni94zy3a2pu>

Annex 017 – Coaches Terms of Reference

<https://app.box.com/s/ylytie3b24nqk5ox75rkst9hnellb7so5>

Annex 018 – PD&F Workshop Terms of Reference

<https://app.box.com/s/nkijvj8mzmgs4kbmqiuozdpkenkvs77m>

Annex 019 – Nairobi PD&F Workshop Agenda

<https://app.box.com/s/hh09y80it68n9s6ra5gm9xyhu1zftzh1>

Annex 020 – Johannesburg PD&F Workshop Agenda

<https://app.box.com/s/1purmihkwuo6cyeh0ca186qbo8g442in>

Annex 021 – 2nd Nairobi PD&F Workshop Agenda

<https://app.box.com/s/1e7fx4adnsjzmpzielhc1ce7z3lu8fx4>

Annex 022 – Nairobi and Johannesburg 2014 Preparatory workshop agenda

<https://app.box.com/s/xe5nqphag8a8b0girxg6pz81jdv3uc5s>

Annex 023 – Nairobi 2017 Preparatory Workshop Agenda

<https://app.box.com/s/n7mxq9zqd7eugy3lmkm4zsjn2cvaj20t>

Annex 024 – 2014 Forum Agenda

<https://app.box.com/s/p0kkaxuddtgm51eucfeool644d43krd>

Annex 025 – 2017 Forum Agenda

<https://app.box.com/s/wxoyp8yt888ucote01oyfb5l4y4k7ay8>
Annex 026 – 2014 Forum Report
<https://app.box.com/s/70zwp4jb54e0oopwi9wmrostrpx7wa5h>
Annex 027 – 2017 Forum Report
<https://app.box.com/s/ol887rps26g1544ezmnav6ei603oxdhv>
Annex 028 – 2014 Judges’ scoring results consolidated
<https://app.box.com/s/hircsgi9kftqqwkaq1whrbjaziadmuag>
Annex 029 – 2017 Judges’ scoring results consolidated
<https://app.box.com/s/ichdcsqfyayfg42xre5jzun95nadm40y>
Annex 030 - Bonn Presentation
<https://app.box.com/s/oonxy8skwm2q3b41elyzx7cr1jrbook4>
Annex 031 - OCF presentation
<https://app.box.com/s/o2c45zmqiwovk93tjuae0d1j10etf9b4>
Annex 032 – SAIREC concept note
<https://app.box.com/s/o5hekyaoimgk2gjr3xd1dmlzgj47725wu>
Annex 033 – SAIREC agenda
<https://app.box.com/s/oeyak3rb4gl9z7l69v3h49mffg05eas0>
Annex 034 – Research paper 1
<https://app.box.com/s/5xgx4go4k85f4jdw7u79k04r72dmyqwj>
Annex 035 – Research Paper 2
<https://app.box.com/s/2yf4j60supxj4xhaviqgdzv9lrw5ds88>
Annex 036 – Research paper 3
<https://app.box.com/s/zr5w2cub8n88hmz30cncf5t2lol8bs02>
Annex 037 – Research Synthesis paper
<https://app.box.com/s/liv5perchgjn5nz7biwiupiogp243gog>
Annex 038 – Dissemination Workshop report
<https://app.box.com/s/f1cka5iiby9f9051f25x4fjhm6mebro2>