I. Introduction and Context

Country Context

The Government of Kenya’s Vision 2030 sets out objectives for the country to achieve middle-income status by 2030. Vision 2030 envisions transforming Kenya into a newly-industrializing country with a globally competitive and prosperous economy and high quality of life in a clean and secure environment.

The GoK understands both the threat climate change poses to economic development and the opportunities possible through development of new technologies and investments in this fast-growing sector. In March 2013, the GoK launched the National Climate Change Action Plan (NCCAP) which states that Kenya’s “economy is highly dependent on climate sensitive sectors including agriculture, tourism, and energy” and that climate change could cost the country as much as $500 million per year, or approximately 2.6% of national GDP. The Action Plan calls for “Low Carbon Climate Resilient Development” to address climate change and reach the economic goals of Vision 2030. Such an approach can “attract international climate finance, technology and capacity” and “the transition to a low carbon climate resilient development pathway can include a shift to green jobs.”

A range of challenges in climate-relevant sectors such as energy, water and agriculture currently impede economic growth in Kenya.
- Only 14-16% of Kenyan households are connected to the grid, creating a major energy divide in the country. Grid penetration is growing at a lower rate than general population growth.
- 75% of health centres and 75% of primary schools in Kenya lack reliable electricity supply.
• Traditional biomass-based fuels for cooking and heating are currently the most important source of primary energy in Kenya with wood fuel accounting for 68.3% of total consumption.
• Availability of clean water in the required quantities and adequate sanitation facilities constrain industrial development and economic growth. The access to safe water is estimated at 60% in urban and 40% in rural areas while sewer systems cover only 14% of the population.
• 80% of Kenya’s land area is classified as arid and semi-arid and receives annual rainfall of less than 1,000 mm, impeding agriculture as crucial factor for development.

Sectoral and Institutional Context
Countries that pro-actively develop, commercialize and deploy novel climate-friendly technologies – rather than being simple technology takers – can benefit from economic development and competitiveness through participation at earlier stages of the innovation value chain. Kenya has aspects of a strong innovation capacity and the opportunity to become a leader in Africa to develop solutions locally that address region-specific issues. Primary sectors include: renewable energy and energy efficiency, water supply, and climate-smart agriculture. Some figures highlight the opportunities in new climate technology development:
• Global new investment in renewable energy and fuel generation reached $269 billion in 2012 and is expected to reach $460 billion by 2030.
• Kenya is considered one of the most prominent sub-Saharan countries in terms of renewable energy.
• African BoP households and small businesses spend over $10.5 billion annually on lighting.
• The market opportunity for households that use a paraffin lamp for Kenya, Ghana and Ethiopia combined is $635 million/year.
• The BoP water market in Africa (252.4 million people) is measured at $2.5 billion.
• 550 million people worldwide have mobile phones but no reliable way to charge them, creating a large market segment to serve with advanced off-grid clean technologies.

Challenge: The Financing Gap for Early-Stage Climate-Tech Companies in Kenya
One key factor inhibiting innovative ventures in Kenya is lack of appropriate financing. Entrepreneurial companies are essential to drive innovation, but many early-stage yet promising companies cannot find the investment needed to develop and scale-up their innovative solutions to climate challenges. Start-up companies in Kenya can usually obtain very small grants of up to $100K for ideation and incubation; more established companies with a proven track record and ability to offer collateral could likely secure approximately $2M and up from more commercially-minded financiers. However, start-up and early-stage companies seeking investment from $100K - $1M have a difficult time accessing appropriate financing. Traditional investors shy away from such investments due to (i) the high transaction / due diligence costs relative to transaction size and (ii) the risks associated with early-stage companies. Similarly, the Kenyan banking sector remains conservative in its lending with loans given primarily to larger companies that meet their collateral and other requirements. The dearth of appropriate early-stage investment is particularly acute in climate-related sectors where investors lack experience and thus perceive greater risk.

In recent years, there has been an increase in the number of “impact investing” venture funds focusing on the East Africa region, including Kenya; such funds have a strong impact focus and in principle have a higher risk appetite than traditional investors. In practice however, such funds mostly invest in companies getting ready for growth (with developed business models) and prefer
investments in the $1 - 2.5M range (with deals below $1M more the exception than the norm). There are two funds – BPI and Grofin - that make investments in the $50 - 500K range; however both of these funds target small but profitable companies looking to expand further, and typically focus more on traditional sectors rather than new innovation industries like climate-tech. Impact investors do acknowledge that the absence of appropriate financing - combined with intensive handholding – to promising start-ups also makes it difficult for such investors to find quality deal-flow.

Start-up and early-stage companies in the climate-tech space in Kenya and East Africa are therefore at the risk of stalling in the so called “valley of death” between the ceiling of their initial funding and the floors of most investors and financiers. With nowhere to turn for funding, these companies face stagnation or failure.

**Relationship to CAS/CPS/CPF**

The project also relates to the Kenya CPS which identifies 3 domains of engagement:
- Competitiveness and sustainability;
- Protecting the vulnerable and help them develop their potential;
- Focusing on building consistency and equity.

The proposed project aligns with the competitiveness and sustainability domain as it seeks to enhance the potential of the clean tech subsector as well as ramping the financing sector by increasing the supply of early stage investment finance to start-up and early stage local innovative firms with commercial potential to address clean-energy and climate change mitigation or adaptation needs in Kenya.

The economic pillar of the Government of Kenya Vision 2030 Second Medium Term Plan 2013 – 2017 (MTP-2), envisages moving up the value chain in key areas, including agriculture and financial services, to consistently deliver 10 percent annual growth that is necessary to make Kenya a middle-income country. The MTP -2 proposes to integrate the Sustainable Development Goals (SDGs) post 2015 which among others include: ending extreme poverty and hunger; achieve development and prosperity for all without ruining the environment; increasing agricultural production in an environmentally sustainable manner, to achieve food security and rural prosperity; curb human-induced climate change with sustainable energy; protect ecosystems and ensure sound management of natural resources.

By focusing on supporting the Government of Kenya goal of “greening” the economy, the proposed project is therefore also aligned with MTP-2 SDGs.

**II. Project Development Objective(s)**

**Proposed Development Objective(s)**

The development objective is to pilot an innovative investment facility that addresses the financing gap for promising start-up and early-stage climate technology companies in Kenya, and to develop a deal flow of investible, sustainable and scalable enterprises that contribute to Kenya’s growing climate innovation and clean tech sectors.

**Key Results**
(a) Total financing invested in the target firms;
(b) Number of profitable and scalable climate technology companies that are creating positive social, environmental and/or economic impact;
(c) Complementary financing leveraged and/or catalyzed within 5 years of investment;
(d) Number of new/improved technologies or products offered by portfolio companies;
(e) Number of new seed-stage investment vehicles/facilities (in East Africa or beyond) that are influenced by the KCVF investment model.

Knowledge and Learning

Because the project will pilot a new approach, a key deliverable is the iterative knowledge and learning generated for the World Bank Group on the opportunities and challenges of developing sustainable seed investment models. This is consistent with infoDev’s mandate to test and develop innovative models for growth-oriented enterprises and to share learning from our work within the World Bank Group and other relevant stakeholders.

Some of the key questions the project will help address are:

- What are the most effective seed investment/support models and practices to enable start-up/early stage climate technology companies to move into the growth phase and become commercially viable?
- How and to what extent can private capital be leveraged to invest in promising but riskier early stage companies?
- To what extent can seed/early stage investing vehicles in developing countries like Kenya and sectors like clean-tech become commercially sustainable, and what role should public/donor financing play to develop this space?

Given the increased interest globally in the seed and early-stage financing space in developing countries, these learnings will be shared widely to inform thinking on how to structure such solutions. The knowledge products developed – including reports, blogs, workshops, webinars - will include what works as well as what does not.

III. Preliminary Description

Concept Description

1. Description

The project is to establish an innovative financing facility, the Kenya Climate Venture Facility (KCVF) to provide seed and early stage financing to promising start-up and early-stage climate technology firms in Kenya.

(a) KCIC Background and Context

The KCVF will be set up by and capitalize on the activities of the existing Kenya Climate Innovation Center (KCIC, http://kenyacic.org/). The KCIC was launched in September 2012 in Nairobi and currently supports more than 80 start-up and early-stage Kenyan firms developing innovative technologies and businesses in climate change sectors such as renewable energy, climate-smart agriculture and water and sanitation. The KCIC provides its client companies with a range of services including proof-of-concept grants (US$25K - US$100K), business advisory services and training, access to technical and office facilities, information and international linkages. Companies being supported by the KCIC benefit from assistance to get from concept to initial market testing in the course of a successful incubation process, which typically takes at least 12 months or more.
The KCIC is implemented by a consortium of four organizations that bring complementary strengths to the project:

- **Global Village Energy Partnership (GVEP)** – GVEP is a non-profit firm that supports Kenyan SMEs providing renewable energy access to under-served communities. GVEP supports KCIC clients with strategy/business plan development, access to finance and related activities.
- **PriceWaterhouse Coopers (PWC)** – PWC provides back-office financial management for the project.
- **Kenya Industrial Research and Development Institute (KIRDI)** – KIRDI is a government research and development body that supports KCIC clients with technology prototyping and development as well as getting key IP protection for their technologies.
- **Strathmore University** – Strathmore provides office facilities for KCIC and its clients in its business school as well as technology development support.

The KCIC is strongly supported by the Government of Kenya and is featured prominently in the Kenya National Climate Change Action Plan (NCCAP):

“Kenya has recently established the first Climate Innovation Centre (CIC) in the world at the Strathmore Business School. Dedicated to supporting climate change technologies and research and development entrepreneurship, its main focus will be on innovative technologies in the area of energy, agriculture and water supply that will contribute to Green Development and growth. The CIC will play an important role in developing green technologies in Kenya and will target solutions that are relevant across the East Africa Region.”

(b) **KCVF Overview**

Now that the KCIC has gained critical traction with the Kenyan clean tech startup community, it is the right time to launch the KCVF with a mandate to support the financing of the most viable of these firms. KCVF will focus on those innovative companies that are at a stage of development when they require financing for further market testing and business model validation, leading to a full market roll-out. The KCVF will pioneer an innovative financing model – among the first of its kind in the East Africa region – by investing patient capital (in the form of equity, debt and/or related instruments) along with high engagement management and technical assistance (Figure 1). It will target companies that will have the potential for a positive financial return on investment while also creating social, economic and/or environmental impact. These will include companies developing promising - but unproven - business models in renewable energy (on-grid, off-grid, and home-based products such as solar lighting or cook-stoves), water/sanitation and climate-related agriculture. To maximize deal flow however, portfolio companies for the KCVF will include but not be limited to KCIC clients.

The KCVF will be set up by KCIC, which will capitalize it with an anchor equity contribution of approximately $4.5M (made possible through a grant of $4.9M to KCIC from infoDev).

Key features of the KCVF model are as follows:

- **Geographic Focus** - The principal geographic focus of the Facility is Kenya, but KCVF will also be open to investment possibilities in the greater East Africa region in due course.
- **Investment Size** - Individual investments could range from $100K - $1M; however most investments will be under $500K. To mitigate risk, investments will be milestone based, with smaller amounts of initial capital and subsequent capital injections tied to performance milestones and growth outlook.
- **Legal Structure** – KCVF is envisioned to be an investment company, as this structure is
more suited to this type of higher risk investment category than traditional VC/PE models. The actual details of the legal structure will be further developed during the project development phase.

- **Investment Instruments and Approach** - Individual investments will consist of equity, equity-like debt and other innovative non-grant instruments (such as revenue based financing), and priced on commercial terms using a disciplined investment approach. However, they will be more patient and flexible in structure than traditional commercial sources of capital, given the early stages of the companies and their need for more tailored and flexible sources of capital. Such investment principles are already being effectively applied in impact investing.

- **Management/Technical Assistance** – A key feature in the KCVF model – alongside capital provision - is the strong focus on management/technical assistance to portfolio companies. Start-up and early stage companies need a lot of hand-holding and support to realize their potential. Some of the areas for management /technical assistance will include:
  - Talent development – Mentoring/coaching for entrepreneurs, and building core management team;
  - Strategy and business model development;
  - Financial and operational systems development;
  - Market intelligence and marketing support;
  - Government linkages and assistance on getting regulatory approvals;
  - Access to finance linkages (with banks, donors, other investors) for companies, value-chain players, and end-consumer financing;
  - New business development and partnerships.

infoDev has applied for an additional $0.8 M in grant funding for Technical Assistance for KCVF portfolio companies from the SREP Private Sector Set-Aside of the Climate Investment Funds administered by the World Bank. The proposal has been endorsed by an Expert Group reviewing all proposals and is pending formal approval from the SREP Approval Committee.

Because of the pioneering nature of KCVF as one of the first seed-stage investment and TA vehicles in Africa focused on climate technologies, details of its business and investment model, strategy and structure will need to be kept open at this point to encourage the KCVF to adapt itself as it is informed by the experiences from its early investments.

(c) **Operational Relationship between KCIC and KCVF**

A central element of KCVF – and a principal innovation in its investment model which sets it apart from other early-stage funds - is its close operational relationship with the KCIC. The KCIC will support KCVF in the following ways:

- **Pipeline sourcing and pre-screening** – Start-up and early-stage companies being developed by KCIC will be a principal source of deal flow for the KCVF. The KCIC will also be able to vet/screen them for suitability for KCVF investment as per the Facility’s funding criteria. At present, KCIC management estimates that about 25 of the 80 companies currently being supported by KCIC are seeking to raise their first round of investment capital and would be potential pipeline for KCVF. Additionally, KCIC also has built a network of other early-stage clean-tech companies that were too mature for KCIC’s incubation support, but would be promising pipeline for KCVF. This ready-made pipeline from KCIC will reduce the KCVF’s time and cost in sourcing deal pipeline and screening.

- **Post-investment management & technical assistance** – The KCIC has the infrastructure to build capacity and provide support to start-up and early-stage climate-tech companies. For companies that KCVF invests in, KCIC will provide management/technical assistance alongside the
KCVF team.

(d) Management of KCVF
It is envisioned that the management of the Facility will be done by an investment firm with strong experience in SME investing (including managing early-stage investments) and with a local Kenyan presence. The Facility manager will:

i) source deals (in addition to the pipeline generated from KCIC);

ii) conduct due-diligence and negotiate/structure/close individual investments;

iii) conduct post-investment monitoring and governance of portfolio companies;

iv) coordinate management assistance to portfolio companies from the KCVF investment team and KCIC;

v) administer the Facility governance and reporting requirements;

vi) bring additional investors into the project.

An alternative management option is to hire an in-house investment team within KCIC/KCVF to manage the Facility. The investment team would be led by a seasoned VC/PE investment professional (who would serve as the Chief Investment Officer) and include a small team of finance professionals (which will grows as needed as the portfolio expands). In this scenario, the KCVF investment team will remain independent of KCIC incubation team, reporting instead to an investment committee (on investment matters) and to the KCVF Board (on general governance matters).

Both management options appear feasible at this stage and this will be finalized during project development prior to disbursement of the grant to KCIC. The Facility manager’s contract terms (along with the compensation/incentive structure) will be developed during project development as well.

(e) Leveraging Additional Capital
KCVF will initiate investing with the $4.5 M anchor equity contribution from KCIC, laying its structural foundations and refining its model based on its initial investment experiences. As these foundations are built, the project will aim to leverage and “crowd in” other public and/or private funders to increase the overall funding base for target companies. Such leverage can come at two levels:

i) Investors can invest directly into KCVF, adding to the pool of funds contributed by KCIC. The goal is to increase the size of KCVF to at least $15 M in total capitalization over time.

ii) Investors can co-invest with KCVF directly into the target portfolio companies. The pre and post-investment activities of KCVF/KCIC will make it easier for potential co-investors to reduce their diligence/transaction and post-investment management costs.

One source of financing is other institutional donors who also have a strategic interest in enabling early-stage climate-tech companies. Another source is impact investors, who seek to address social and/or environmental problems while also making reasonable financial returns. Impact investors are interested in areas such as SME financing, clean/renewable energy and sustainable agriculture. They also recognize the importance of early-stage businesses in developing such innovations. However, in practice all these possible partners struggle to make investments because of the higher risks of failure associated with them. These other investors may wish to avail themselves of risk mitigation support from the KCVF.

To prepare for and enable risk mitigation support for such investors, infoDev submitted a request for $6M guarantee funding to the SREP Private Sector Set-Aside of the Climate Investment Funds, as mentioned above. The guarantee will be in the form of a “first loss” cover on the principal amount.
invested and will be available both type of target investors for the project. Those co-investing with KCVF directly into portfolio companies will have a portion of their principal protected in individual deals. Likewise, those investing into KCVF directly will have a portion of their investment into the Facility also protected. Initial estimates are that the “first-loss” cover could be between 25-35% of the principal amount invested, potentially unlocking about $20 M in additional financing for the two investment categories. The exact extent of the first-loss protection and how the guarantee structure works will be determined during the project development following conversations with potential investors.

IV. Safeguard Policies that Might Apply

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V. Financing (in USD Million)

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