Climate Innovation Center
Business Plan: Kenya

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Structure

1. infoDev
2. Climate Innovation Centers (CICs)
4. Stakeholder engagement process
5. Gap Analysis & Business Model
6. Implementation & Oversight
7. Financial Plan
8. Appendix
Innovate, Connect, Transform

**Goal:**
Demonstrate the link between technology and sustainable development
Build local capacity in developing countries to create and accelerate innovative technology SMEs.

**Focus:**
infoDev focuses on enterprises that use technology to deliver innovative solutions or to increase their competitiveness and market reach.

**Foundation:**
global network of 300+ business incubators in 80+ developing countries, 20,000 SMEs, 220,000 jobs
Climate Innovation Centers

Key Success Factors:

- A coordinated and holistic approach to innovation
- Based on local context, market needs and opportunities
- Aggregates existing country initiatives
- Leverages public-private partnerships and resources
- Networked nationally and internationally facilitating collaboration
The Kenya CIC: Mission, Objectives and Impact

**Mission**

To provide an integrated set of services, activities and programs that leverage and expand existing innovation capacity and support the development and scale of climate technology SMEs in Kenya

**Objectives**

1. Providing access to flexible investment mechanisms that support enterprises at varying levels of innovation and scale
2. Building innovation capacity through the delivery of advice, assistance and educational products
3. Enabling local and regional collaboration that develops and supports an innovation ecosystem in East Africa
4. Identifying and unlocking new market opportunities through access to information and market intelligence
5. Facilitating access to facilities that support rapid technology design, adaptation, proto-typing, testing and manufacture

**Impact**

**Environmental**
- Mitigate 1.5m tons of CO2
- Install 90MW of off-grid energy
- Provide energy access to 1m Kenyans
- Provide access to clean water to 441,000 Kenyans
- Provide better/cheaper food to 43,000 households
- Improve the efficiency of 22,500 small-scale farms.

**Financial**
- Finance over 70 Kenyan climate technology ventures
- Achieve a survivability rate of 50% at the POC phase and 75% at the seed stage
- Achieve a 100% leverage ratio for 30% of investments
- Achieve overall 50% leverage of entire cost of the center via local cash and in-kind contributions

**Social**
- Generate over 930 direct jobs and 3700 indirect jobs at a cost of USD 3,200 per job
- Generating over 1,400 jobs for women
- Create over 24,000 high value jobs at USD 850 per job over 10 years.
Feasibility study process

Stakeholder identification and outreach

Sector mapping: Main issues

Workshop 1: Brainstorming and networking

Follow up: Quantitative analysis

Workshop 2: Model design and working groups

Develop proposal with key stakeholders and government endorsement

Implementation

Stakeholders
- Technology prioritization
- Gaps analysis
- Workshops
- Surveys
- Model design
- Proposal

The following are available to Cleantech SMEs, entrepreneurs and innovators:
- Initial/start up/risk capital
- Facilities to build prototypes
- Information access/databases on technology
- Model design
- Proposal
Mapping Market Gaps to Center Business Model

Gaps
- Technology
- Finance
- Company
- Market
- Regulatory

Needs

Solutions
- Access to Finance
- Advisory Services
- Enabling Environment
- Access to Information
- Access to Facilities

Case Study: Market Gap

Nuru Light: Founded 2008

A key barrier for Nuru Light has been the limited knowledge of clean tech options among end consumers. For example, in some markets, the company found that most people assumed that kerosene was their only option for lighting. There is therefore need for extensive grassroots marketing to raise awareness on RE options among consumers.
Implementation and Oversight

Oversight Board

Management Team

Gov & Donor Partners

Private Sector Partners

Investment Committee

Enabling Environment

Market Info

Access to Facilities

Advisory Services

Finance
## Implementation Timeline

<table>
<thead>
<tr>
<th>Details of the setting-up, Launch</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>6+</th>
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<tbody>
<tr>
<td>Funding: Finalize funding sources and close on transaction, update budget and appropriately</td>
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<td>Admin &amp; infrastructure: incorporate the company, establish office, create operating policies</td>
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<td>Set up Advisory Board</td>
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<td>Hire staff</td>
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<td>Develop and implement marketing campaign</td>
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<td>Begin select programs: tech sourcing program, market intelligence program, identify and screen partners and candidate companies</td>
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<td>Opening ceremony</td>
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## Programs

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<tr>
<th>Launch additional programs: mentor training, entrepreneurship training, develop toolkits, seminar series</th>
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<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
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<tr>
<td>Launch policy advocacy and analytical products</td>
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<td>Sign up facility providers - labs &amp; testing centers</td>
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<tr>
<td>Begin disbursing financing</td>
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<tr>
<td>Launch CIC conferences</td>
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<tr>
<th>Ongoing operations</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>6+</th>
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<tbody>
<tr>
<td>Monitoring and Evaluation</td>
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<tr>
<td>Scale-up</td>
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<td>Expansion contingent upon funding – facilities</td>
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<tr>
<td>Applied R&amp;D program, demonstration/pilot fund</td>
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Governance

Staffing
- 7 staff in years 1
- 12 staff in years 2-5

Oversight Board
- 9 seats representing various industries/sectors
- Rotation every 2-3 years
- Ideally some sponsorship for board seats

Investment Committee
- 4-5 individuals
- Experienced financiers

Incorporation and Ownership
- Non-profit entity: Either trust or private company
- Charitable or institutional tax registration possible
- Ownership managed by oversight board
Organizational Structure

- **CEO**
- **COO**
- **Oversight Board**
  - **Investment Officer**
  - **Case Manager**
  - **Project Officer**
  - **Fellows**
  - **Research analyst**
  - **Technology Analyst**
  - **Partnership Development Manager**

**Support Staff**
- **Marketing and Communications Officer**
- **Support Staff**
- **International Partnerships**
- **Partner Organizations & Industry**
- **Facilities & Manufacturing Partners**

**Marketing and Communications Officer**
- **Front Office**
- **Finance**
- **Advisory Services**
- **Market Info**
- **Ecosystem Development**
- **Access to Facilities**

**Beneficiaries:** Technologists, Entrepreneurs, Start-up firms, SMEs, Industry

**Governance**
- **Gov & Donor Partners**
- **Private Sector Partners**

**Investment Committee**
- **Investment Officer**
- **Investment Analyst**

**Finance**
- **Investment Committee**
- **Investment Officer**

**Monitoring & Evaluation**
- **Gov & Donor Partners**
- **Private Sector Partners**

**International Partnerships**
- **Gov & Donor Partners**
- **Private Sector Partners**

**Ecosystem Development**
- **Gov & Donor Partners**
- **Private Sector Partners**

**Finance**
- **Gov & Donor Partners**
- **Private Sector Partners**

**Access to Facilities**
- **Gov & Donor Partners**
- **Private Sector Partners**

**Advisory Services**
- **Gov & Donor Partners**
- **Private Sector Partners**

**Market Info**
- **Gov & Donor Partners**
- **Private Sector Partners**

**Ecosystem Development**
- **Gov & Donor Partners**
- **Private Sector Partners**

**Access to Facilities**
- **Gov & Donor Partners**
- **Private Sector Partners**
Impact, M&E and Risks

**Environmental**
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**M&E**
- Internal databases and data collection
- Yearly annual report
- Focus groups and stakeholder follow-up
- Surveys and other quantitative measurements where possible

**Risk Management**
- **Center Risks**: Finance, stakeholder support, management and staff, market demand
- **Market Risks**: Finance, market supply, market demand, regulatory environment, competition
Financial Plan

5-Year Budget: USD 15.2

CIC Budget: Years 1-5

Y 1  Y 2  Y 3  Y 4  Y 5

$1.40M  $2.97M  $3.0M  $3.72M  $4.12M

Revenue Model: Almost 75% self-sustaining after 12 years

Sustainability Model: 70% costs covered in 10th year

Other opportunities for revenue:
- Carbon Credits
- Financial advisory services
- Facilities leasing
- Sponsorship
- Tailored Training
- Brokered technology transfer
- Consulting work
Beneficiaries: Building a Pipeline of New Ventures

- Country: Kenya
- Company: Craftskillz
- Entrepreneur: Simon Mwachiro
- Clean Technology: Small Wind
- Current capacity: 10 to 20 turbines a year.
- Employees: Between 3-20

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Solutions</th>
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<tbody>
<tr>
<td>Lack of risk capital</td>
<td>Center could offer start up risk funding. Simon is looking for approx USD100k</td>
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<tr>
<td>Standardization</td>
<td>Center could offer standards for various tech</td>
</tr>
<tr>
<td>Policy</td>
<td>Center could act as an “Industry Association”</td>
</tr>
<tr>
<td>Business support</td>
<td>Center could provide business training, market data etc.</td>
</tr>
<tr>
<td>Equipment and tools</td>
<td>Center could provide facilities where entrepreneurs could prototype their innovations and produce initial products for proving the market.</td>
</tr>
</tbody>
</table>
Technology Priorities of CIC

Evaluation Criteria

- **TR** Technology Readiness
- **MD** Market Demand
- **AF** Availability of Funding
- **RS** Clear, Ready Stakeholders
- **BM** Business Model
- **IR** Leverage of Indigenous Resources
- **EC** Entrepreneurial Capacity
- **WF** Workforce
- **PO** Policy
- **EI** Economic Impact
- **GI** GHG Impact
- **SI** Social Impact
- **AT** Already on Track

Stakeholder Feedback

Prioritized Technologies

1. **Off-grid Technologies**
2. **Water**
3. **Micro-hydro**
4. **Tech for adaptation**
5. **Agriculture**
6. **Bio-energy**

Priority 1: Off-grid Technologies

Main technologies: Solar PV, CPV, Bio-Gas, Biomass, Wind.

Example business models: Off-grid/distributed solar PV, off-grid/distributed CPV, distributed bio-gas, distributed biomass generated power, off-grid/distributed wind kW, Distributed energy from hybrid power systems (e.g., Wind-solar-diesel hybrid systems).