CE3: An ecosystem approach to SDG promotion

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University of Notre Dame
bosco background

- a **community-based approach** in post-conflict Northern Uganda
- goal: dignified globalization
- means: becoming a pluripotent connector
- social business model: offering participatory impact
partnership development

- Inveneo, Horizont 3000, War Child Holland, UNICEF
- University of Notre Dame
- Accenture, HP Lenovo, Fetzer Institute, Loyola Foundation, SunEdison: CE3
CE3: an ecosystem approach to sustainable development

- foundation: leveraging of Energy and ICT for livelihoods
- CE3: leveraging ICT, adding surplus Energy and livelihoods training
- adding global collaboration: energy planning/monitoring; business mentorship, micro-financial participation
program evolution

- phase 1: harmonizing the parts around three 1 kW sites
- phase 2: two sites each sustainable at 30 kW, with business infrastructure and ICT-based training and networking maturing in separate locations
- looking ahead: community-owned regional electrification strategy for universal energy, capital, communications access
energy

● **local utilities**
  ○ mortgage financing
  ○ co-managed sustainability fund
  ○ (looking ahead) centers of household-scale energy distribution

● **regional utility**
  ○ maintenance, financial, business development support

● **(looking ahead): grid-tied utility-scale solar**
  ○ boosts economics for scaling
  ○ guides site selection
  ○ promotes economies of scale and influx of expertise
Utility Scale - Regional Microgrid support - Local Utility
Regional and Local Energy Utilities
ICT - networking

off-grid ICT network and training undergirds everything else:

- community sites selected
- local leaders elected
- global partners connected
BOSCO ICT Network Map
from livelihoods to business development infrastructure

- Accenture-sponsored Entrepreneurship Essentials or Educate! training to establish a common language of business
  - 12 sites, 1400 trained
- Entrepreneurship Club of Uganda
  - Community support
  - Just-in-time education
- Global pipeline for capitalization
- Local and international mentorship program
pipeline for capitalization
international mentorship program

- Focused on business plan development
- Mediated by translators
- 168 pairings
- 100+ completions
- early post-implementation survey:
  - training boosts “business language” habits
  - more employees hired
  - not yet increase in revenue
baseline survey of 5000 Gulu businesses

https://us-east-1.online.tableau.com/t/loughranshareddata/view
s/GuluBaselineBusinessSurveyMap/BaselineMap?:embed=y&
showShareOptions=true&:display_count=no&:showVizHome=n
o
transparency through data
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insight from interviews

...He keeps records of all the business transactions he makes. Records every sale made, decides what goods to buy by consulting his records. He has a written budget of the costs he expects to pay for the business in future. He has competitors, and is aware of their strength and weaknesses. He does advertising; outside display, occasional advert on radio and also word of mouth. His location is where it is because of nearness to bus park. The place is very secure from natural hazards and human activities. He seeks advice from his suppliers and senior business friends. He banks most of his profits while he uses some to pay rent, taxes, transport and employees. He has a Business Plan and Mission Statement...
CE3: a complex ecosystem connecting people around sustainable development

Early CE3 Agent Model

- Productive-use Renewable Energy
- Supporting Infrastructure for Entrepreneurs
- ICT supporting Energy & Entrep Education & Collaboration

Note that SUN takes over Funding EE and ICT training

Lightest Blue Arrows = later stage activity

Supporting Infrastructure for Entrepreneurs
### SDGs: ways of connecting in a pluripotent environment

<table>
<thead>
<tr>
<th><strong>SDG</strong></th>
<th><strong>Description</strong></th>
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<tr>
<td>1 <strong>Person</strong></td>
<td><strong>No Poverty</strong></td>
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<td>2 <strong>Zero Hunger</strong></td>
<td><strong>Health</strong></td>
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<td>3 <strong>Good Health and Well-being</strong></td>
<td><strong>Education</strong></td>
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<td>4 <strong>Quality Education</strong></td>
<td><strong>Clean Water and Sanitation</strong></td>
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<td>5 <strong>Gender Equality</strong></td>
<td><strong>Affordable and Clean Energy</strong></td>
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<td>6 <strong>Clean Energy and Water</strong></td>
<td><strong>Climate Action</strong></td>
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<td>7 <strong>Affordable Clean Energy</strong></td>
<td><strong>Industry, Innovation and Infrastructure</strong></td>
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<td><strong>Responsible Consumption and Production</strong></td>
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<td>10 <strong>Responsible Consumption</strong></td>
<td><strong>Life on Land</strong></td>
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<td>11 <strong>Life on Land</strong></td>
<td><strong>Peace, Justice and Strong Institutions</strong></td>
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<td>12 <strong>Peace</strong></td>
<td><strong>Partnerships for the Goals</strong></td>
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</table>

1. **Increased incomes for smallholder businesses** through **Entrepreneurship training and loans** and **Health Clinic Electrification**.
2. **Prosperity for small agribusiness owners** through **Entrepreneurship education in secondary schools as required by UG DoE**, **Loans and training to large percentage of women (much greater than 50%)**, and **Water source mapping project (educational with aspirations for WATSAN use)**.
3. **Entrepreneurship Club of UG with common business language (EE), follow up social support, ad hoc training, financial services**.
4. **Building ICT, Energy, Business social networking infrastructure, looking toward transportation and energy networks increase incomes for economically marginalized from energy poverty; dignified globalization through international participation, energy social networking infrastructure, looking toward transportation and energy networks**.
5. **Increasing energy education for consumers** by **hand-glove tailoring of E demand to supply**.
6. **Promoting citizen journalism; providing local wide area network platforms outside of for-profit social media**.
7. **Enduring global partnerships undergird by ICT, data culture, local CSO strengthening proposals, aquaculture enabled through small business training and loans, Shea nut tree planting project; communal land ownership efforts; collaborative farming proposals for profit social media wide area network with platforms outside of for-profit social media**.

**Key initiatives**:
- **Entrepreneurship education in secondary schools**
- **Water source mapping project**
- **Entrepreneurship Club of UG**
- **Building ICT, Energy, Business social networking infrastructure**
- **Increasing energy education for consumers**
- **Promoting citizen journalism**
- **Enduring global partnerships**