

Community-driven Sustainability Strategies for Appropriate Technology Projects: *Reflections from Two Projects in Sudan*

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Outline

- ◉ Development projects: typical goals and ends
- ◉ Sustainability strategies for AT projects
- ◉ Community-driven approaches
- ◉ Elements of sustainability useful for project design

Development projects: typical goals

- ◉ Reach roll-out/institutionalisation stage
- ◉ Change Policy/practice
- ◉ Integrate and sustain intervention over the long-term

Sustainability

Development projects: typical ends

- IFAD on the sustainability of their rural Development Projects:

"sustainability was satisfactory in 67 per cent of the projects evaluated in 2007, as compared to only 40 per cent in 2002, however, 50 per cent of the projects evaluated in 2007 are rated only moderately satisfactory for sustainability and 33 per cent remain unsatisfactory" [1]

- UN figures on MDGs (2012) shows that the majority of the Millennium Development Goals are still out of reach [2]

Sustainability [3]



Source: Google images

- ◉ A development “buzzword”
- ◉ Contested meanings
- ◉ Trans-disciplinary
- ◉ A boundary term – “where science meets politics”

AT projects sustainability [4]

- ◉ Physical infrastructure
 - > Was it appropriate for context?
- ◉ Knowledge transfer
 - > Can it extend beyond trained population subset?
- ◉ Financial resources
 - > Can it be sustained beyond seed funding or survive with subsidies?

Projects: Solar Electrification

- Started at 3rd ICAT (2008)
- Facilitated by the Barefoot College
- Trained 4 grandmothers from Nuba Mountains in Sudan



Millennium Villages

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- A map of Africa with colored dots indicating the locations of Millennium Villages. The dots are color-coded according to the legend on the left. A bright green dot is highlighted in the eastern part of the continent, near the border of Ethiopia and Kenya.
- ▶ **Kenya - Kericho**
 - ▶ **Kenya - Mbita**
 - ▶ **Kenya - Mwea**
 - ▶ **Kenya - Uasin Gishu**
 - ▶ **Kenya - Wajir**
 - ▶ **Kenya - Yala**
 - ▶ **Kenya - Kakamega**
 - ▶ **Kenya - Kisumu**
 - ▶ **Kenya - Lamu**
 - ▶ **Kenya - Malindi**
 - ▶ **Kenya - Meru**
 - ▶ **Kenya - Nyeri**
 - ▶ **Kenya - Siaya**
 - ▶ **Kenya - Taita Taveta**
 - ▶ **Kenya - Trans Nzoia**
 - ▶ **Kenya - Turkana**
 - ▶ **Kenya - Uasin Gishu**
 - ▶ **Kenya - West Pokot**
 - ▶ **Kenya - Wundanyi**
 - ▶ **Kenya - Yala**
 - ▶ **Kenya - Zipporah**
 - ▶ **Kenya - Zipporah**
 - ▶ **Kenya - Zipporah**

Mirri Village: Lights on ...





Not only were they learning technical skills

...

They were exposed to other cultures which enhances their ability to be innovators



The Barefoot Project in Sudan – 4 years on

- One out of two villages completed
- Conflict in June 2011 displaced Mirri community (on going)
- What happened to our solar engineers?



Asha resumed her original job as a midwife, now using her lantern



Umhageen moved to a safe village near Mirri, and works as the solar engineer for the displaced families who saved their equipment



Mona & Khadiga refreshed their training in the Sept 2012 – Mar. 2013 course at BC, waiting to return for peace & reconstruction



Projects: Mobile Apps

- Based on UNICEF Innovation Lab Model
- Pilots at U. Of Khartoum and Sudan U. Of Science and Technology (Oct. 2012 – Mar. 2013)
- Developed apps for low-end mobile phone for monitoring:
 - > School-kit distribution
 - > Routine vaccination
- Currently parties in negotiations to implement 2 labs



Community-driven approaches: Sustainability Elements

- The Barefoot Model
 - › Community partnership
 - › Collective decision making
 - › Training grandmothers
 - › Learning by doing
 - › Knowledge transfer
- The Campus Innovation Lab
 - › Collaborative space
 - › Student flow
 - › Existing infrastructure
 - › Builds on existing technical knowledge
- Non-sustainable Elements
 - Technology
 - Start up funds
 - Technology
 - Incentive system

A “Barefoot” Project Design

- Collaboration
- Ownership
- Empowerment
- Training of trainers
- Business model



"I am not a woman, I am a solar engineer"

"I have a sacred thing that I own to my community"

"I like the Innovation lab in everything .. because it give as a chance to be a creative thinker , and help as to learn new things, and help us to make ourselves more stronger by using self reading and self studying and self learning. And also let us know new people and work with people and developers around the world."

"It (the project) gave me a chance to give back a little of what I have been taking for five years from the university"

References

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