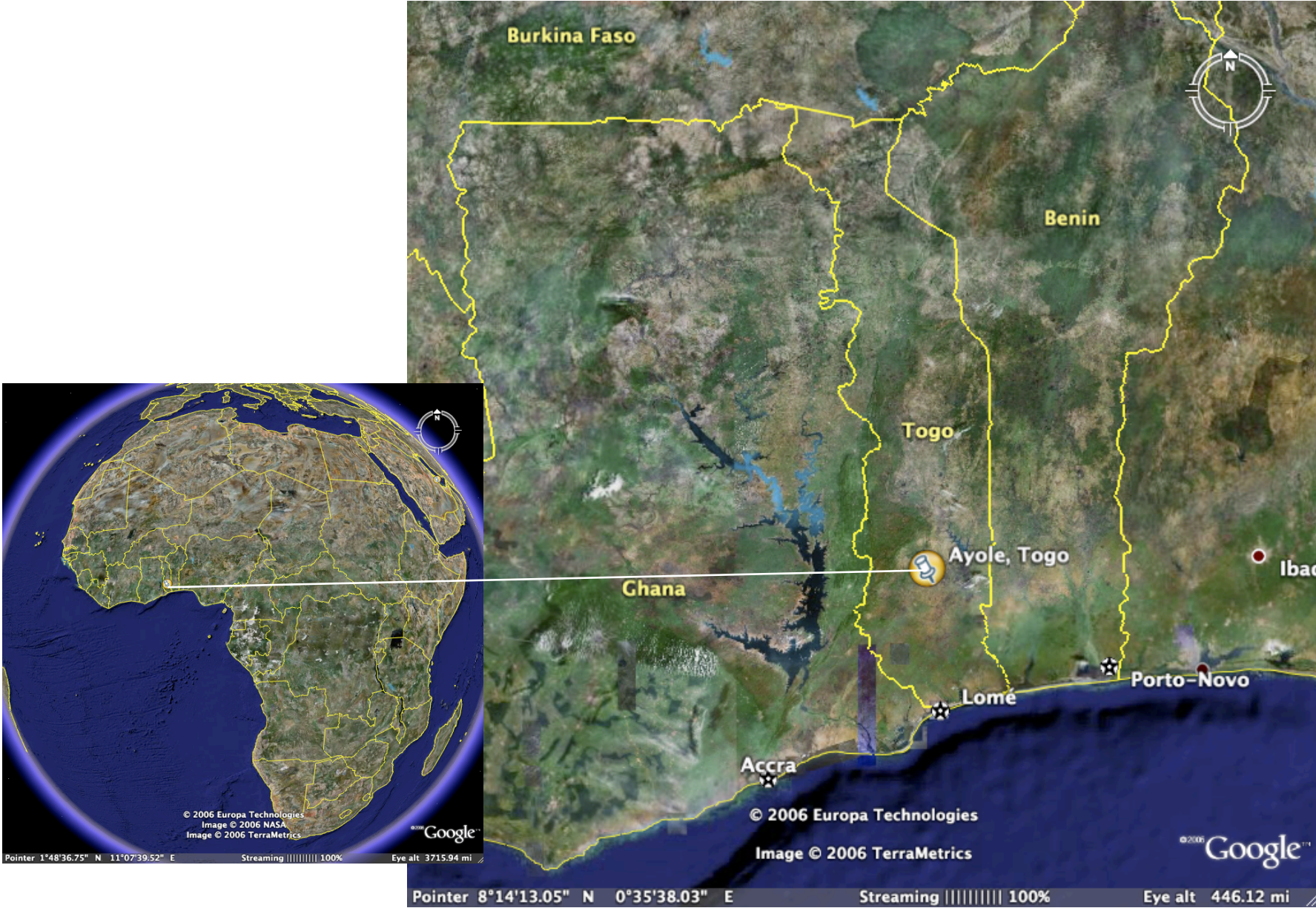


Ayole, Togo



The Water of Ayole

- From the government extension worker's perspective, why were the pumps failing?
- From the citizens of Ayole's perspective, why were the pumps failing?
- What level of participation were the extension workers using?

The Water of Ayole

- How did the government extension workers change their approach with the village of Ayole?
- What were the roles instituted in Ayole to manage their water source?
- What level of participation did the extension workers use in the new approach?
 - Was it appropriate?
 - Was it successful?
 - What measures can/should be used to assess the approach?

The Water of Ayole

- How did the village's organization for sustaining its water source have impacts beyond clean, safe water?

Capacity Building in Ayole

- What new capacities were built in the village?
 - Technical capacities
 - pump
 - Individual capacities
 - mechanic: pump repair
 - overseer: oversight
 - Communal capacities
 - organize/collaborate in a committee
 - regular economic production (via crops)
 - Policy capacities
 - government ensured that pump parts were available in stores
- Resulting in additional new capacities
 - Individual capacities
 - access to clean water
 - reduced Guinea worm infection
 - women: increased political clout
 - women: reduced work burden
 - Communal capacities
 - improved village self-image
 - follow-on projects...

Important Take-Aways

- Technological systems (pump) live within social systems (village)
- Addressing technological systems without addressing the accompanying social system tends to lead to unsustainable results.
- A participatory approach resulted in a sustainable water source.
- For sustainability, new capacity needed to be built on the technological, individual, communal, and policy levels.

Community-Based Participatory Research (CBPR)

- What is CBPR?
 - What are its key attitudes and approaches?
- Not just a set of methodologies.
- An attitude / approach to working in communities
 - With some humility
 - Respect for the community's knowledge and ways of knowing

CBPR

- CBPR is reflexive, flexible, and iterative, not rigid and linear
- Shifts location of power from researcher to community (hopefully power becomes equally dispersed)

Principles of CBPR

- Truly collaborative—all parties equal
- Research is relevant to community
- Direct benefits will be seen, hopefully in the form of social change
- Enhances capacity of participants
- Everybody learns
- Knowledge is disseminated within community
- Community members receive credit for work
- Steps taken to ensure that research is “ethical”

Contrasting modes of participation

- **Contractual**
 - People are contracted into the researcher's project
- **Consultative**
 - People are asked for their opinions
- **Collaborative**
 - Researchers and local people work together on projects designed, initiated, and managed by researchers
- **Collegiate**
 - Researchers and local people work together as colleagues with different skills to offer, in a process of mutual learning where local people have control over the process
- ?Does one mode fit all?

Difficulties of CBPR

- CBPR is very hard to do well, especially under time and resource constraints
- Also may be seen by the organization that contracted you as unnecessary because they already “know” the solution to the problem
- What would be the difficulties in projects or organizations you have worked?

Potential pitfalls of CBPR

- Vapor-Participation: The CBPR methods are done mechanically without the attitude of participation such that you merely do what you planned to do in the first place
- CBPR can become a feel-good exercise that has no practical value
- CBPR can reproduce existing power relations
- Marginalized peoples are not necessarily empowered to speak their minds

Considering Failure

- What are the primary contributors to failure in ICTD projects?
- What is the role of research in development?
 - Is it responsible to do research in poor communities?
 - Is it responsible to do development in poor communities not backed by good research?
- What is the failure rate of IT projects?
 - 20% - 50% depending on source
- What is the failure rate of IT startup companies?
 - 15% - 70% depending on source

Your experiences

- What did you do?
- Who were you doing it with?
- Why were you doing it?
- Level of participation?
 - Contractual / Consultative / Collaborative / Collegial?
 - Mix?
- Level of local capacity building?
- What worked well?
- What did not work well?
- How sustainable has it been?

Beginning steps toward CBPR

- Decide to work collegially
- Network to build partnerships
 - Look for “hybrids” or cultural translators
 - Those who can bridge cultures
- Work with existing organizations
 - Community organizations
 - Government agencies
 - NGOs
- Take building relationships seriously

Capacity Building

- Capacity Building != training
 - E.g. Consider The Waters of Ayole, only the mechanic was trained
- 3 levels of **ICT-based** human capacities
 - adapted from Osterwalder
 1. Ability to use and understand applications
 2. Ability to develop and maintain applications
 3. Ability do provide and maintain infrastructure
- References:
 - J. Panchard and A. Osterwalder, “ICTs and capacity building through apprenticeship and participatory methods applied to an ICT-based agricultural water management system,” in Social Implications of Computers in developing Countries. IFIP WG 9.4, 2005.
 - Osterwalder, A. (2004). ICT in developing countries - a cross-sectoral snapshot. The Electronic Journal of Information Systems in Developing Countries EJISDC.

Level 1 - User

- What would a user need to learn in order to use the ICT solution?

Level 2 - Developer

- Needs change, technologies change, new software versions are released, new hardware replaces old on the market.
- What expertise is needed to **maintain** the solution?
- Is that expertise available within the resources of the (community, organization, etc).
 - Does it exist?
 - Is it affordable?

Level 3 - Infrastructure

- Is there infrastructure to support the ongoing use and development of the ICT solution?
- E.g.
 - Does the organization that *owns* the solution have the leadership, vision, policies, and budget to support the technology?
 - Are there local businesses to turn to for parts, support, etc.
 - Is the power reliable for the needs of the technology?
 - Is the Internet of sufficient bandwidth?

Layers of Capacity Building

- Individual learning
 - What level of apprenticing or training is needed?
 - For who?
- Organizational learning
 - What new processes or ongoing programs will be necessary in the local center?
- Community learning
 - What new institutions will need to be built to support the region?
 - What new local business opportunities does this create/require?
- Governmental learning
 - Should new policies be put in place to support this?

Dimensions of Sustainability

- Organizational sustainability
 - Budget, knowledge, leadership, vision
- Economic sustainability
 - Do the incentives align
 - Are there market opportunities
- Technical sustainability
 - Is the solution robust
 - Does the solution scale

Planning for Sustainability

Sustainability planning at 3 levels:

1. Capacity building

- Do individuals, organizations, communities, governments have the knowledge, processes, and policies to keep the complete system going?

2. Motivation & incentives

- Are individuals, organizations, communities, and governments motivated or otherwise have incentives to keep the complete system going?

3. Technical

- Is the technology robust so that its use and maintenance does not overwhelm 1 and 2?

Motivation & Incentives

- People, organizations, businesses, and governments have to have appropriate motivation to sustain it
- Personal motivation or incentives (\$)
- Financial sustainability within a market
- Mission alignment within an organization
- Political support within a government

Social Program vs Social Enterprise

- There are multiple organization models to solve a problem.
 - ! And achieve sustainable social change
- Participatory design tends toward the social program.
 - I.e. By government, nonprofit or NGO.
 - Sustainability can be difficult for the person(s) paying for the service is different than the person(s) receiving benefit from the service.
- The (Social) Entrepreneur approach is an alternative.
 - Look for how products and services can be provided in the market.
 - Sustainability comes from the market.
 - Participatory design is not the best fit for developing products for market.
 - Suggestion: Take a class with Tim Zak
 - 90.845 Social Innovation Incubator (Spring)
 - 90.811 Foundation of Social Innovation and Enterprise (Fall)
 - 94.831 Design & Policy for Humanitarian Impact (Fall)

"African Digital Renaissance" – World Bank blog

- > 90 tech hubs
- > 50% countries have 1
- Sizes range from:
 - co-working spaces
 - to full business incubators

- Source: World Bank

<http://blogs.worldbank.org/ic4d/tech-hubs-across-africa-which-will-be-legacy-makers>

- Are they doing good?
I have not found any good evaluation reports yet.

