



# D-Lab

## Spring 2005

# Some Logistics

- E.mail list
- Class size/enrolment
- Surveys and Student Profiles
- Design Challenges

# Product Design Critique

- What were the most important considerations that governed each design.
- Which product is your favorite? Why?
- Critique the functionality of each design. Which one works the best?
- Which design is the best value?
- Which designs do you think are innovative?

# The Three Revolutions of International Development

- Appropriate Technology
- Participatory Development
- Co-Creation

# The Sari Cloth Filter



Image courtesy of the National Science Foundation.

# The Pot-in-Pot

Images removed for copyright reasons.

See pages on Mohammed Bah Abba at  
the Rolex Awards for Enterprise,

<http://www.rolexawards.com/special-feature/inventions/abba.html>



# Whirlwind Wheelchairs



Image courtesy of DISACARE.



Image courtesy of DISACARE.

# Light Up the World

Images of lights, fabrication facility and in-use lighting removed for copyright reasons.  
See Light Up The World Foundation:  
<http://www.lightuptheworld.org/>.



# Grameen Phone

Photos of women with GrameenPhone services  
removed for copyright reasons.  
See <http://www.grameenphone.com>

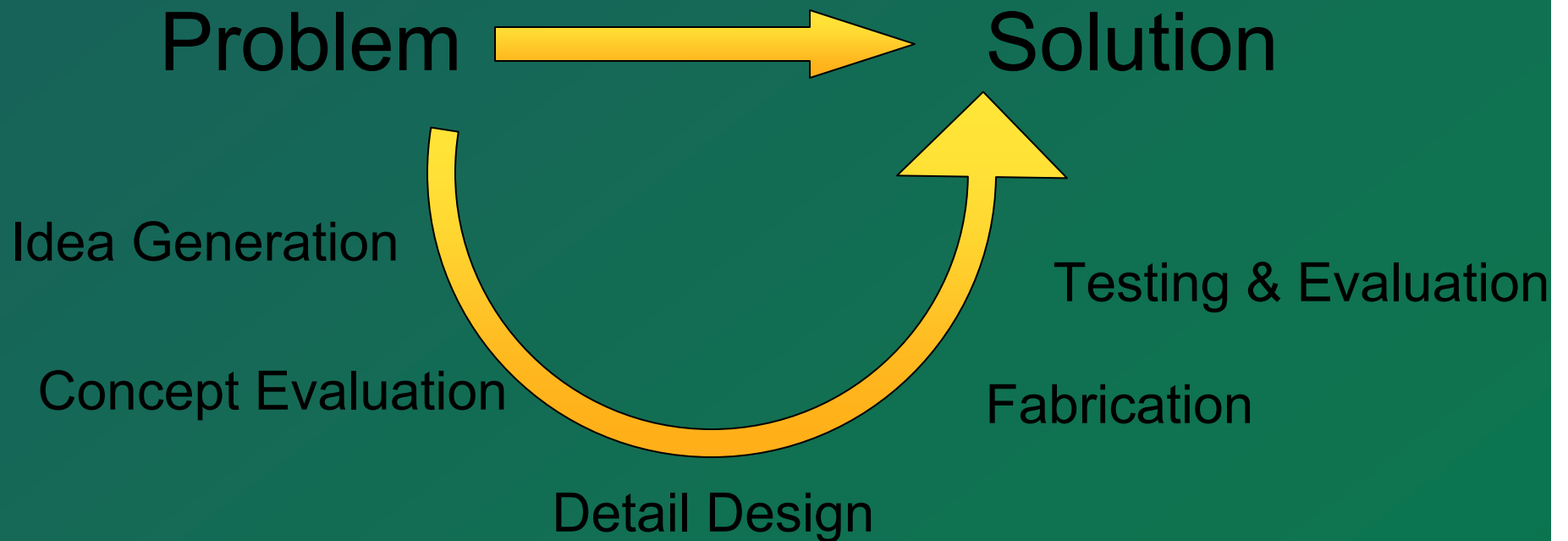
# Participatory Development

- Working with communities to identify problems

# Stakeholder Analysis

- Identify stakeholder's interests in, importance to and influence over the operation of a project
- Identify local institutions and processes on which to build
- Provide a foundation and strategy for participation

# The Design Process



# Consultation vs Co-Creation

**Community Involvement**

Problem



Solution

**Community Involvement**

Idea Generation

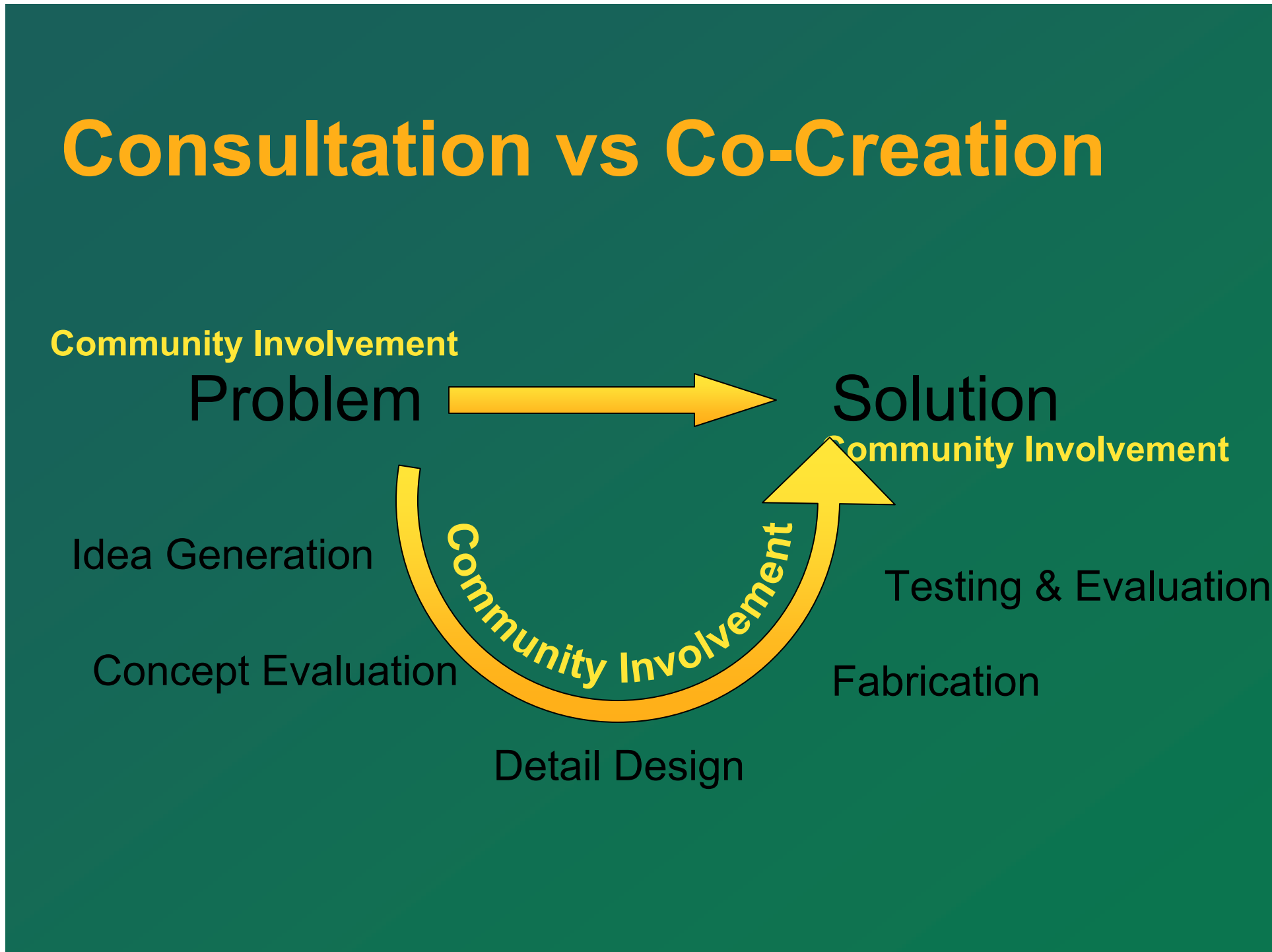
**Community Involvement**

Testing & Evaluation

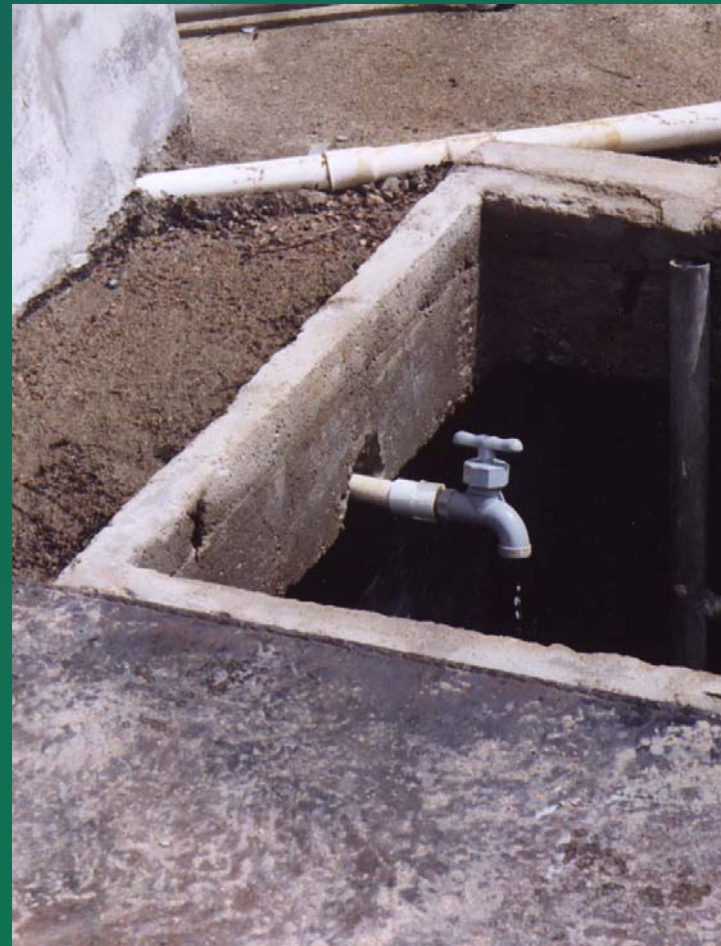
Concept Evaluation

Fabrication

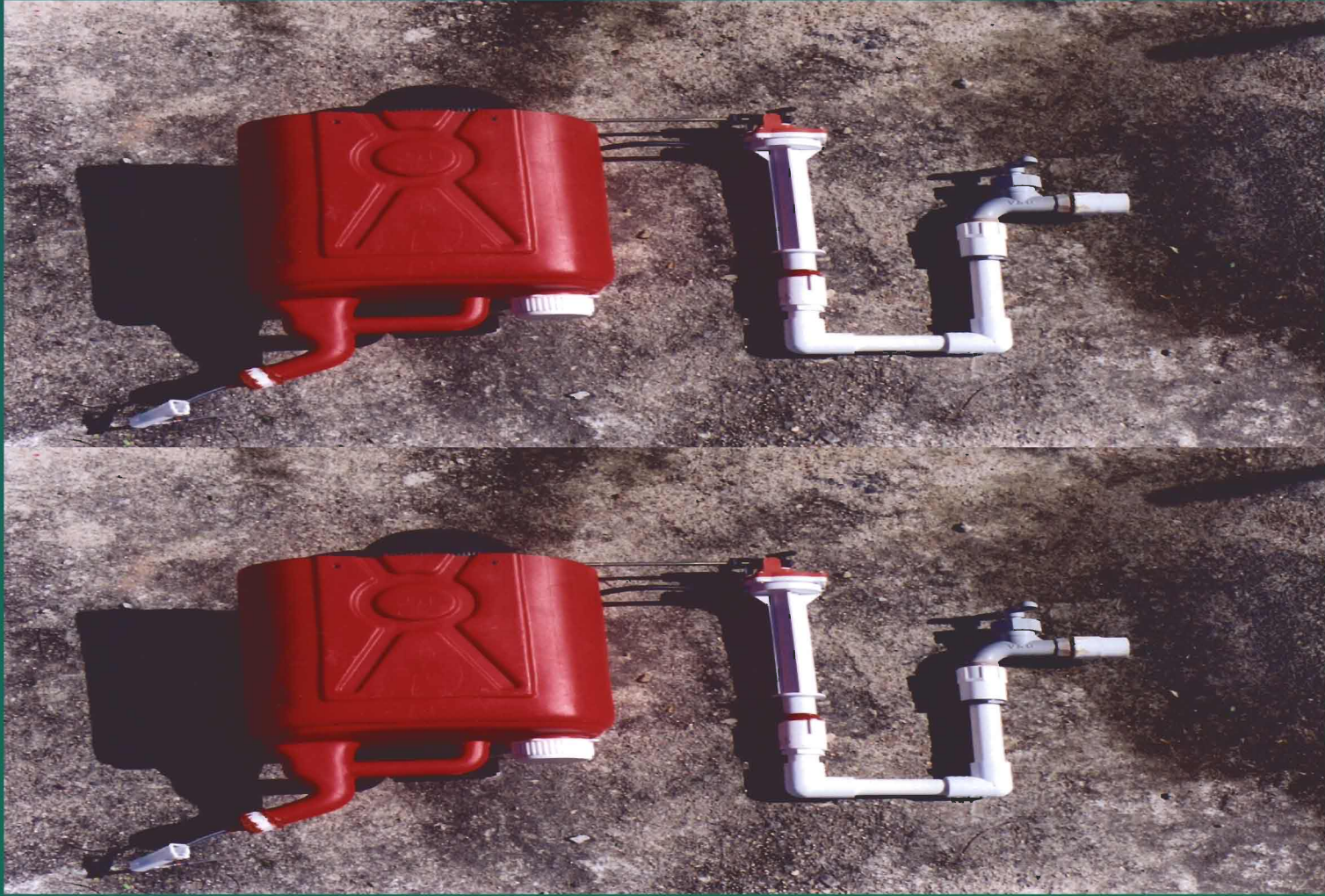
Detail Design



# Chlorination System in Honduras



















# A Guiding Principle for AT

- Give a man a fish, and he eats for a day
- Teach a man to fish, and he eats for a life time...  
unless there's no river nearby!!

# A Guiding Principle for Co-Creation

- Give a man a fish, and he eats for a day
- Teach a man to fish, and he eats for a life time...  
until the fishing pole breaks!!

# A Guiding Principle for Participatory Development

maybe you should ask if he likes fish!!



# Guiding Principles for D-Lab

- Identify functional requirements
- Encourage participatory development
- Value indigenous knowledge
- Promote local innovation
- Strive for sustainability