Managing a Project from Half a World Away: A Case Study of the Rehabilitation of Rio Juckucha, Bolivia

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Premise

• Development projects present challenging multifaceted technical and nontechnical problems to project managers

• Project managers often have technical expertise but...
  – Lack training to address “softer” issues that may be lethal to a project
Ex Situ

• Project managers are often off-site and/or out of country
  – Increases difficulty
  – Magnifies mistakes, consequences of inaction
  – Akin to a “long distance relationship”
Successful Development
Project Management

Groundwork

Trust

Communication

Momentum
1. Groundwork

- Gather sufficient data to guide design
- Ensure few design changes will be required
- Establish strong, interpersonally-based relationships with partners
- Identify hierarchy / roles
Groundwork

LEGEND
- Red: Limestone Delivery completed
- Orange: Limestone Partial Delivery
- Green: No limestone delivery
- Blue: Planned Channel
- Purple: Channel completed

Laguna Santa Catalina

Required: 348 m³
Delivered: ~67.5 m³ tons

Required: 108 m³
Delivered: ~135 m³ tons

Required: 213 m³
Delivered: ~262.5 m³ tons

Installed limestone channels length: about 80 m

Installed limestone channels length: about 70 m

Installed limestone channels length: about 80 m
Roles

• Project management
• Technical advisors
• Non-technical advisors
• Resources
  – Key organizations / people

All entities should understand their roles
- OU Center for Restoration of Ecosystems and Watersheds
- Saint Francis University
- Norman Rotary Club
- Universidad Autonoma de Tomas Frias
- Empresa Minera Agricola Kumurana
- Engineers in Action
- Centro Investigacion Minero Ambiental
- Japan International Cooperation Agency
- Potosí Rotary Club
- OU Sooners Without Borders
- OU WaTER Center
- Other Rotary Clubs
  - Norman CrossTimbers, Norman Sooner, Pauls Valley, Purcell, Houston Space Center, Ardmore, Altus, Elk City
- Rotary Foundation
- Cardinal Engineering
- Penn State University College of Medicine
2. Trust

- Relationships make projects
  - Do not start a project without a trusted field engineer and partners

- Ensure field engineer and key partners are comfortable relating all issues
  - Interpersonal
  - Technical
  - Anything!
Trust Ex.

- Issues arose between a key partner and our field engineer
  - Trust needed between
    - Project manager and field engineer
    - Project manager and key partner
  - Project put back on track after honest communication between trusted actors
Communication

• Relationship maintenance is key
• Constant and unvarnished
  – Project manager & field engineer
• Constant and cordial
  – Project manager & key partners
Communication

- Eased by technology
  - Diminished delay, distortion, reporting limitations
  - Yet difficult to maintain cordiality

- Give honest praise at every opportunity
  - Because at times negative feedback is necessary
    - Maintain positive communicational karma!
• Email communications over important matters became heated

• Verbal communication would have likely diffused issues
  – We are nicer:
    • In-person > videophone > phone > letter > email
    • Put in the effort, move up the communication “niceness continuum” when possible!
Momentum

- Have pre-determined tolerances
- Have contingencies in place
- Multiple ongoing tasks
  - Constantly communicate about the multiple lines of work available for progress
• Design specified diameter of stones for treatment system
  – Before construction began, tolerances were decided upon
  – Through construction, stone diameter was outside of the specifications of the design, but within the tolerance
  – Project continued
Take Home

• Know the roles
• An ounce of prevention…
• Relationships are key
• Move up the communication continuum
  – Maximize honest praise
• Plan to maintain momentum!
Questions?