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Objectives

- ➤ Share experience from EIA Alto Chicama Project in Peru
- Present tools to face the challenges of large, multidisciplinary, multicultural EIAs



Alto Chicama Project

Client: Minera Barrick Misquichilca S.A.

Location North Andes of Peru

(4000 - 4200 masl)

Ore: Gold (silver)

Mine Type: Open Pit

Capacity: Up to 42 000 t/d

Mine Life 8 to 10 years

Characteristics of Team

Professionals: ca. 200

Golder Offices: 11

Countries: Peru, Canada, USA, Chile



Large Multidisciplinary and Multicultural ElAs Challenges

- Management
- Technical
- Multidisciplinary
- Culture Aspects
 - > Socio-Economic Environment

What about the CONSULTANTS?



Consequences in:

- Respect of Local Capability, Standards & Legal Norms
- Day to day work
- Review process
- > Translations

Management

Challenges:

- Control of budget/person hours (11 different offices)
- Different currencies
- > Schedule

Proposed Solution:

Centralized parallel administration system



Centralized Parallel Administration System

FOTO of ALTO CHICAMA DATABASE



Multidisciplinary

Not any more a problem In general terms

- As with all EIA's pressure from every discipline to "put a man on the moon"
 - Rely on instincts and PM experience to foresee all potential fatal flaws and key issues
 - Focus effort based on Issue Scoping Outcomes
 - ➤ Maintain a level of Balance



Multidisciplinary

FOTO TEAM BUILDING IN TRUJILLO



Technical

- Meet all local regulatory laws, regulations, standards, guidelines
- Process & Quality needed to be consistent with international standards (i.e. WB guidelines) & internal corporate standards
- Adopt current leading technologies or be innovative in setting new standards (geochemistry assessment for water quality predictions)



Technical

- Detailed project description developed in the initial stage
- Challenges:
 - Maintaining balance (baseline, impact assessment, management plans, etc ...)
 - Containing/reducing/eliminating iterations



Multicultural Consultants

All staff in Golder have a common corporate vision & shared goals, however,

WE ARE DIFFERENT!!!!

Must recognize need to put Best Team forward maximizing all available corporate resources recognizing corporate & office profitability pressures.

- 1) Must be a diplomat
- 2) Must have an extensive network
- 3) Corporate places high level of trust in PM



Cultural Differences

Challenges:

- I don't understand you!
- We don't work in that way, therefore it will not work!!!!!
- Relationship with local consultants

Proposed Solutions:

- Strong local counterpart
- Locals manage locals
- A good beer or better a good Pisco Sour and good food
- Project sponsor assist PM with issues



Translations

Challenges:

- Which language will be used, for what and at what stage?
- Find a good translation
- How long will it take?
- How much will it cost?

Proposed Solutions:

- Bilingual staff (Better is a bilingual client!)
- Glossary in two languages (consistency and time savings)
- Review of translation (several steps) before goes to the senior staff



The Nightmare The review needs to be in both languages at the sametime



Challenges:

- How to organize the review?
- How to track the changes in both languages at the same time?



Tracking Sheet (Vertrauen is gut, Kontrol is besser)

- Allows to do the follow up
- Have I reviewed this? Has issue/change had appropriate senior review?
- The contradictory changes are registered?
 - Identify and resolve contentious consultant/owner issues.



Bilingual Tracking

If one is good, two are better





- Centralized management is necessary
- > Team building is priority
- Management tools have to be developed to face the challenges



