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# **Post Conflict Areas (Sudan; Peru) Performance-Based Construction & Maintenance Services**

***Jacob Greenstein Sr. Engineer***  
***Office of Infrastructure and Engineering***  
**EGAT/ Engineering Services Team**

# Principal Issues

1. Security
2. High demand for roads, schools and health clinics
3. Limited funds
4. Weak capacities of public agencies and of the local contractors and consultants
5. Minimal participation of local communities

# Security Issues

Evidence of mines: Juba–Nimule 192 km road-the main Sudan-Uganda trade route



# Security Issues

Heavy Traffic loading and poor road safety condition, Juba-Nimule



## Unstable bridge support: Juba-Nimule road



# Sudan: Program Goals

1. Create employment & build local capacity.
2. Provide peace dividends, contribute to conflict prevention and build confidence
3. Facilitate IDP/returnee movements and resettlement.
4. Improve road access, education and health services

# Program Strategy

1. Optimize accessibility characteristics, maximize social/ economic return, (IRR>12%).
2. Consider financial and technical affordability, and social/ environmental constrains.
3. *Use innovative engineering and contracting procedures.*

# Program Strategy

4. Improve highway safety and minimize maintenance expenditures.
5. Use performance-based lump-sum contracts (PBLSC).
6. Maximize community involvement in all aspects of the project construction and maintenance works.



# What community participation accomplished – Peru



Better understanding of the transport needs

Woman groups involved in all activities.



Significant poverty alleviation

# Peru-Who are the new entrepreneurs?



People from communities along road: 60% with primary education; 3% are illiterate.



## How are the M.E financed?

Contract payments: 89, which they allocate to wages (89%), tools, rentals, transportation and a saving investment fund.

## Creating opportunities: micro-enterprises for road maintenance – Peru

**Outcome 1:** Cost effective solution to provide year-round accessibility on gravel roads: 570 ME maintain 12,900 km (10-14 members for 25-35 km), **at about US \$700/km/year**

**Outcome 2:** Catalysts for local development by creating entrepreneurial capacity in community: e.g., 27% of M.E. engaged in productive activities bringing new services and stimulating labor markets in their communities; **members of micro-enterprises have subsequently become leaders of their communities**

**Outcome 3:** Generation of long-term, direct employment for ME members, and indirect for others in community through complementary activities. Focal point for community work to ensure continuous support from community.

# Sudan-Infrastructure contracts

- Donors have used different technical and financial competitive procedures to select local contractors.
- USAID and government of Southern Sudan (GOSS) have defined infrastructure investment priorities including roads (Nimule-Juba-192 km and Yambio-Tambura-185 km), three clinics and over 40 schools.

# Sudan-PBLSC contracts

- The UNOPS bidding documents of the 185 km of the Yambio-Tambura (Y-T) road consider equally the technical & cost proposals with a cap of +15% to -25% of defined rational costs.
- UNOPS will provide maintenance services for one year following the completion of the construction works. During this period, UNOPS and USAID will develop community based local SME to maintain the Y-T Road.

# Lessons Learned

1. *Using Innovative engineering and procurement procedures* is necessary to optimize road investment and maintenance projects.
2. The use of performance based lump-sum construction, maintenance and supervision contracts (PBLSC)- including *pay equations and value engineering* is a good mechanism to share construction risks and to restrict cost overruns.

# Lessons Learned

3. PBLSC provides incentives and encourages collaboration and partnership culture of all stakeholders.
4. PBLSC shifts the reduced civil works cost overrun risks to the contractor that has a greater ability to manage that risk.

# Concluding Comments

1. Using Innovative engineering and procurement procedures; and effective community involvement are:

(a) Necessary and sufficient (Andean countries) to produce accelerated, safe and cost effective all-weather road services in post conflict areas .

(b) Good mechanism to share post conflict hazards (demining works etc.) and construction risks, and to restrict cost overruns.





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*Thank you  
very much*

*[jgreenstein@usaid.gov](mailto:jgreenstein@usaid.gov)*