The Sumatra Earthquake and Tsunami occurred on December 26, 2004
Earthquake 9.0 on Richter Scale resulted in a devastating Tsunami in the Indian Ocean December 26, 2004

- 11 Countries affected
- over 295,000 dead and tens of thousands missing
- preliminary costs of $11.5 billion
Tsunami

Areas Affected by Tsunami

Banda Aceh
Meulaboh
Phuket
Utapao
Meulaboh

Epicenter

Areas Affected by Tsunami
Sumatra,
Indonesia
240 km of roads
and 110 bridges
US AID Signature
Project $240 M
Indonesia Tsunami Damage

Banda Aceh, Sumatra

Before Tsunami (6/18/04)  After Tsunami (12/28/04)
Banda Aceh

New troop TNI road construction in jungle

Missing road & bridges

Barge on road
Missing Roads and Bridges
Sumatra Road and Bridge Reconstruction

What’s left?
Indonesia Tsunami Reconstruction

Road & Bridge Reconstruction
• Arugam Bay
  -- New 573m Bridge
  -- Approach Roads
  -- Bypass Road
  -- Water and wastewater for 40,000 pop.

• Vocational Training Authority
  - 14 Vocational Colleges
  -- Training Equipment
  -- Training needs assessment
  -- Green Construction

• Ceylon Fishery Harbor Corporation
  - Harbor repairs for 1100 fishing vessels
    Hikkaduwa, Dondra and Mirissa harbors

• Coastal Zone Management Program
Far East District (Korea) - Sri Lanka

Tsunami Reconstruction
USAID Tsunami Reconstruction

- USAID / USACE signed PASA 1 (Participating Agency Support Agreement) on 11 Feb 05
- PASA 1 required USACE to define:
  - USAID Signature Project(s) Scope of Work
  - Signature Project costs based on initial budgets of $35 M for Sri Lanka and $240 M for Indonesia.
  - USACE recommended acquisition strategy
  - Signature Project Initial Environmental Review
- PASA 1 provided POD $442,500 funding for initial 60 days effort beginning on site 21 Feb 05.
USAID Tsunami Reconstruction

- Indonesia PASA 2
  - Signed on 21 Apr O5 and provided additional $958,200 for POH funding for four tasks.
  - USAID pursuing 3 independent contracting actions, with USAID as contracting officer and USACE providing technical support.
  - Task 1, Priority Construction for 8.5 km and three bridges: Prefinal draft of D-B Cost-Plus Contract to Indonesian firms issued by USAID.
  - Task 2, A-E Design & Construction Supervision: Pre-final draft of A-E Cost-Plus for balance of 240 km road issued by USAID.
  - Task 3, EAs: For Priority Construction and Second for Balance of Road
  - Task 4, Technical Support: POH assigned a PM-Forward to USAID-Jakarta
USAID Tsunami Reconstruction

• Indonesia – PASA 2, Priority Construction (Task 1)
  – Develop SOW
    • Cost Plus D-B for 8.5km Road and 3 Bridges
    • ASEAN and US Standards
    • RFP to Indonesian Contractors issued on 24 Jun 05
    • Proposals due 18 Jul 05
    • Award scheduled for 18 Aug 05
    • Construction Contract Duration: 1 year
USAID Tsunami Reconstruction

- Indonesia – PASA 2, Remainder of 240km Road (Task 2)
  - Develop SOW
    - Cost Plus Design and Construction Supervision of approximately 230km Road and 107 Bridges/Water Crossings
    - ASEAN and US Standards
    - Design Period 6 months to include reviews
    - FEZBIZOPS closed on 25 May 05
    - Completed Evaluation of Firms and Short List Sent to USAID-Wash DC
    - Award scheduled for 15 Sep 05
USAID Tsunami Reconstruction

- Indonesia – PASA 2, Environmental (Task 3)
  - USACE POH pursuing 2-EAs. Contract awarded 6 May 05 by POH. Fieldwork underway, 30 May 05. Final decision document scheduled 28 Jul 05.
    - 1st EA: Priority Construction
      - Reconstruction of section of road near Banda Aceh
      - Not to exceed 10 KM including widening, drainage & bridges
    - 2nd EA: Remainder of Road, Banda Aceh to Meulaboh (230 KM)
  - Additional Requirements (29 Jun)
    - GOI support (US pays for Indonesian personnel per diem)
    - Studies for Environmental Baseline (water quality, air and soil sampling)
    - Environmental Baseline Mapbook
    - POH complete Initial Environmental Evaluation (IEE) and EA scoping
    - 2 over the shoulder review for AMDAL (Indonesian equivalent of EPA)
    - Contract extended into November 05
  - PASA 3 (Complete additional actions from PASA 2)
USAID Tsunami Reconstruction

- Indonesia – PASA 2, Technical Support to USAID (Task 4)
  - PM-Forward
    - Arrived in Jakarta on 10 May 05 with departure on 13 Sep 05
    - Replacement arrives on 1 Sep 05 for 120 days minimum
    - Serves as a liaison for POH in RFP preparations, reviews packages/proposals, provides technical and contracting advise, & interfaces with GOI officials
  - Mapping Assistance
    - Deployed GIS specialist to survey revised road alignment
USAID Tsunami Reconstruction

• Sri Lanka
  – PASA 2 for Sri Lanka signed on 28 Apr and provided additional funding to POF to prepare RFP and participate in the pre-proposal conference held on 10 May.
  – Final RFP solicitation 31 May 05 / end PASA 2 POF support.
  – Contractors proposals due 15 July with USAID contracting officer’s goal of USAID contract award by 1 Sept 05.
  – USAID is pursuing one internationally competitive cost plus project management contract that includes issuance of design build, fixed price contracts for the construction activities.
  – USACE activities complete 31 May 05. If USAID requests additional USACE support a new PASA will be issued.
Far East District (Korea) - Sri Lanka

Tsunami Reconstruction

GALLE HARBOUR – 27 DEC 04

Help us now!

Re Build our school please.
Sri Lanka Tsunami Reconstruction
Arugam Bay
Proposed Bridge Alignment

Existing Bridge

Legend

- Water Dist.
- Sewer Collect.
- New Bridge
- By-Pass Rd

Approx. Scale (Ft)

0 800 1600 2400 3200

Proposed Water Distribution Plan

Proposed Waste Water Plan

Proposed By-Pass & Bridge Alignments

Water and Force Main Lines Suspended from Bridge

Pottuvil

Proposed By-Pass & Bridge Alignments

Existing Bridge

Proposed Bridge Alignment
Vocational Training Facilities
Sri Lanka Tsunami Reconstruction
Fishery Small Boat Harbors
**Harbor Improvements**
- New Slipway Drydock
- Boat Motor Repair Bldg
- Fish Processing & Ice Plant, Storage, Flash Freeze
- Fuel station
- Fish Auction Bldg
- Net Mending Bldg
- Community Bldg
- Fisherman’s Toilet Bldg
- Harbor Yard Lighting
- Security Guard and Gate with Boundary wall
- Fish Waste Recycling
- Water/Wastewater Treatment
- Harbor Master and Assistant Quarters

Hikkaduwa Harbor - 350 Boats
Lessons Learned (AAR needed)

1. Enthusiasm at Corps great.
2. USAID support to initial effort enthusiastic and valuable.
3. POD leadership meshed well with POF and POH implementation teams.
4. USACE mission changed from overall management to provide USAID a vehicle to contract with private industry.
5. Concerns with USAID on contracting (acquisition) strategy and communication between USAID Washington DC and Jakarta.
6. PM forwards – subsidized labor by USACE
7. Daily conference calls
8. Team effectiveness – regional teams
9. Changes in PMs and USAID program direction
Lessons Learned

What can we do better next time? (Need to ask USAID)

- Preparation: Better defined scope, team selection, passports, visas, shots, tech experts, travel
- Place PM forward on site earlier and for 6 months minimum
- Improve PASA funding process
- Manage changes better (communicate better)
- Manage time on site better (pre-coordination)

Any interesting war stories?

- Outbrief of scope & estimates to Ambassadors and Chiefs of Mission
- FFE kit at customs in Sri Lanka
- Roadblocks and Tamil Tigers in Sri Lanka, GAM Rebels in Banda Aceh & TNI Army support in Indonesia
- USAID workspace / communication via email
- We stayed safe and healthy! 😊