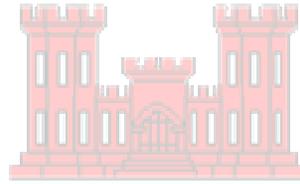




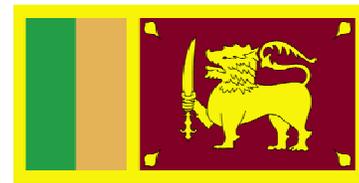
***USACE Tsunami Reconstruction for USAID***

**Andy Constantaras, Pacific Ocean Division**

***THE U.S. ARMY  
CORPS OF ENGINEERS —  
RELEVANT AND READY***



# **USAID TSUNAMI RECONSTRUCTION PROGRAM Indonesia and Sri Lanka**



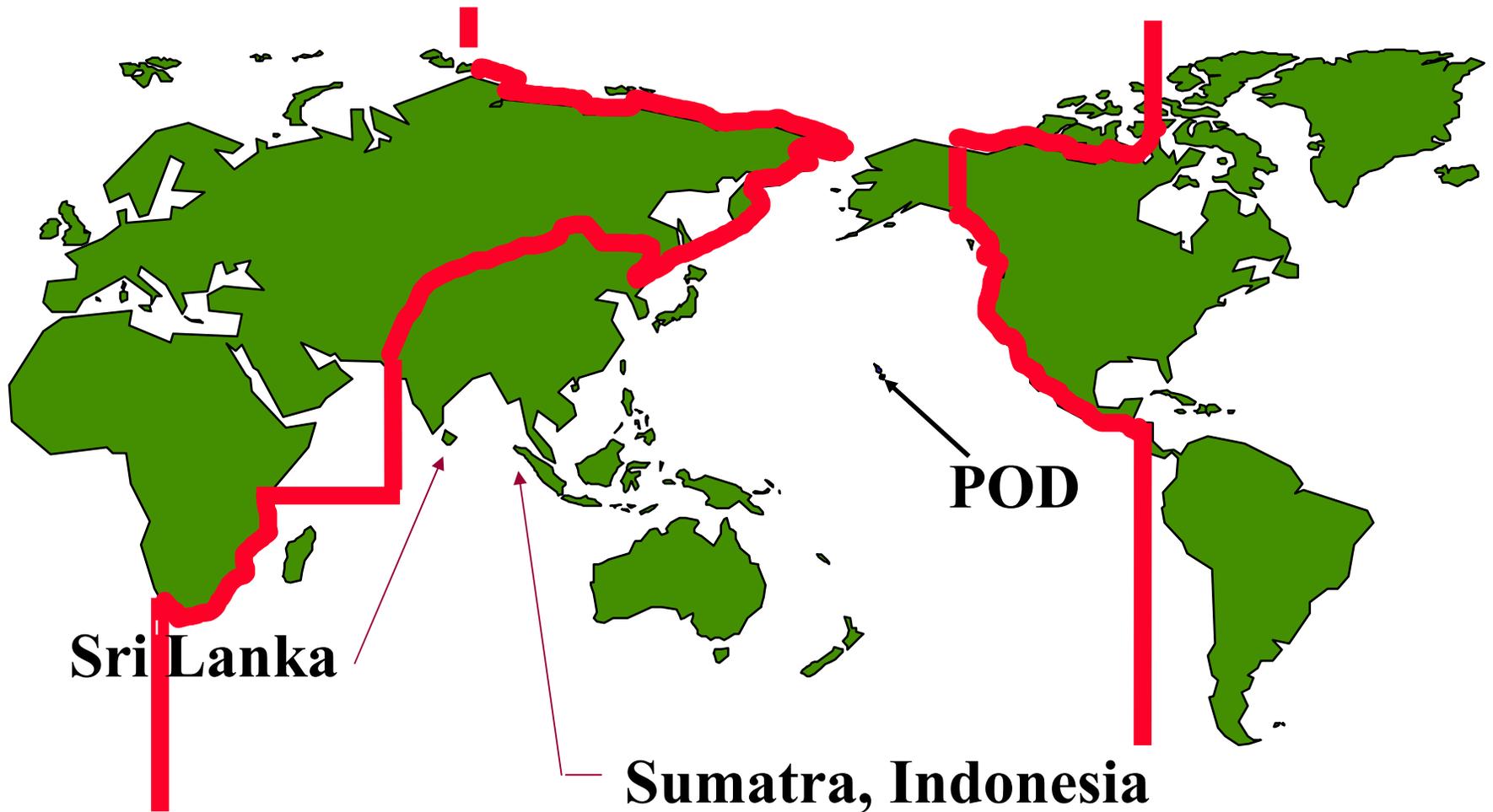
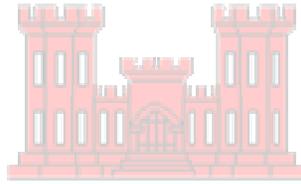
**U.S. ARMY CORPS OF ENGINEERS**

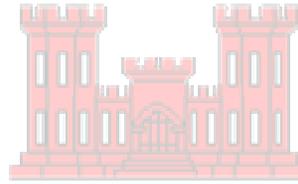
**Draft 18 July 05**

**The Sumatra Earthquake and Tsunami occurred on December 26, 2004**



*United States*  
Pacific Command



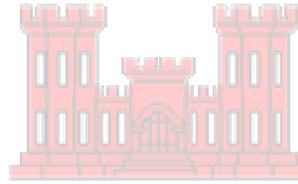


## Tsunami

**Earthquake 9.0 on  
Richter Scale resulted in  
a devastating Tsunami  
in the Indian Ocean  
December 26, 2004**

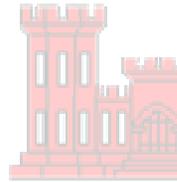


- **11 Countries affected**
- **over 295,000 dead and tens of thousands missing**
- **preliminary costs of \$11.5 billion**

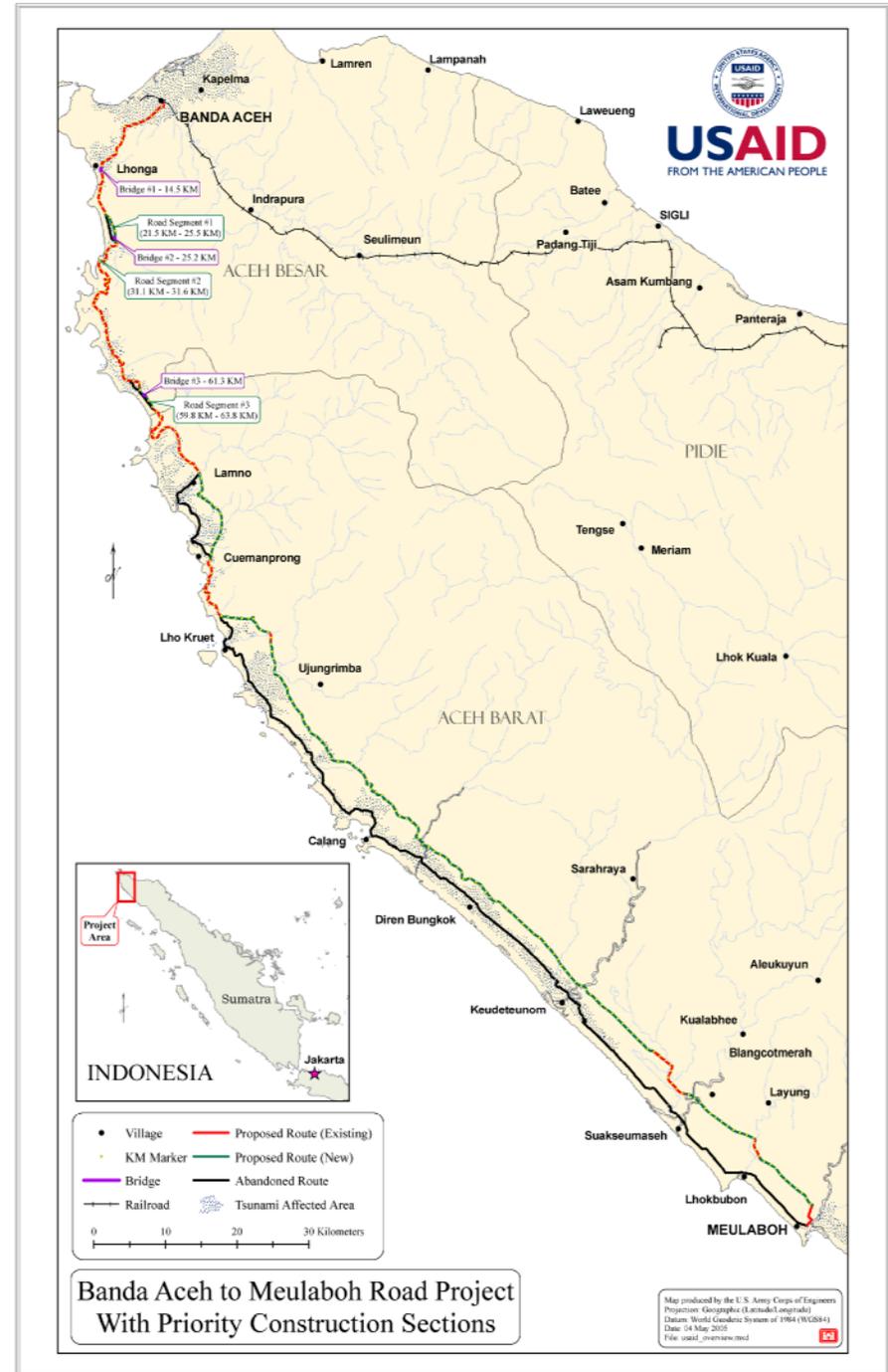


# Tsunami





**Sumatra,  
Indonesia  
240 km of roads  
and 110 bridges  
US AID Signature  
Project \$240 M**

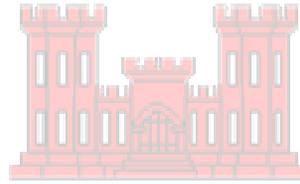




# *Honolulu District - Indonesia*

## **Tsunami Reconstruction**





# 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**



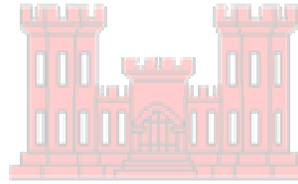


---

## Sumatra Road and Bridge Reconstruction



**What's left?**



# Indonesia Tsunami Reconstruction

## Road & Bridge Reconstruction





# Sri Lanka

## US AID Signature Projects

### \$35 M

- 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

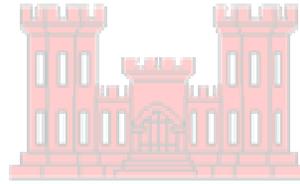




# *Far East District (Korea) - Sri Lanka*

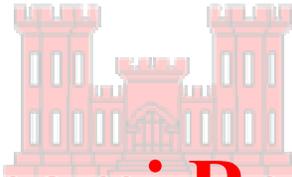
## **Tsunami Reconstruction**





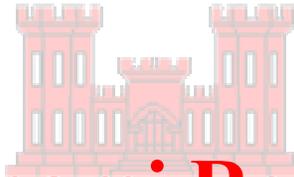
## USAID Tsunami Reconstruction

- 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.



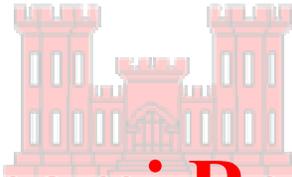
# USAID Tsunami Reconstruction

- Indonesia PASA 2
  - Signed on 21 Apr 05 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



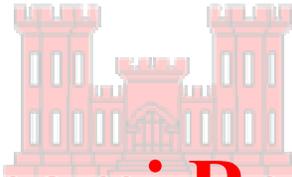
# USAID Tsunami Reconstruction

- 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



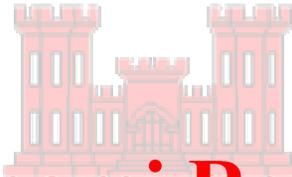
## USAID Tsunami Reconstruction

- 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



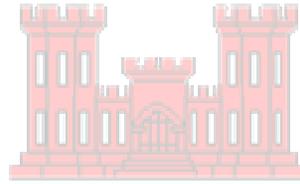
## USAID Tsunami Reconstruction

- 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.
    - 1<sup>st</sup> EA: Priority Construction
      - Reconstruction of section of road near Banda Aceh
      - Not to exceed 10 KM including widening, drainage & bridges
    - 2<sup>nd</sup> 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.

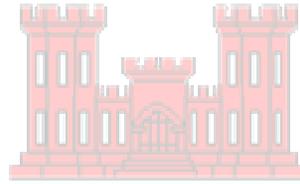


# *Far East District (Korea) - Sri Lanka*

## **Tsunami Reconstruction**

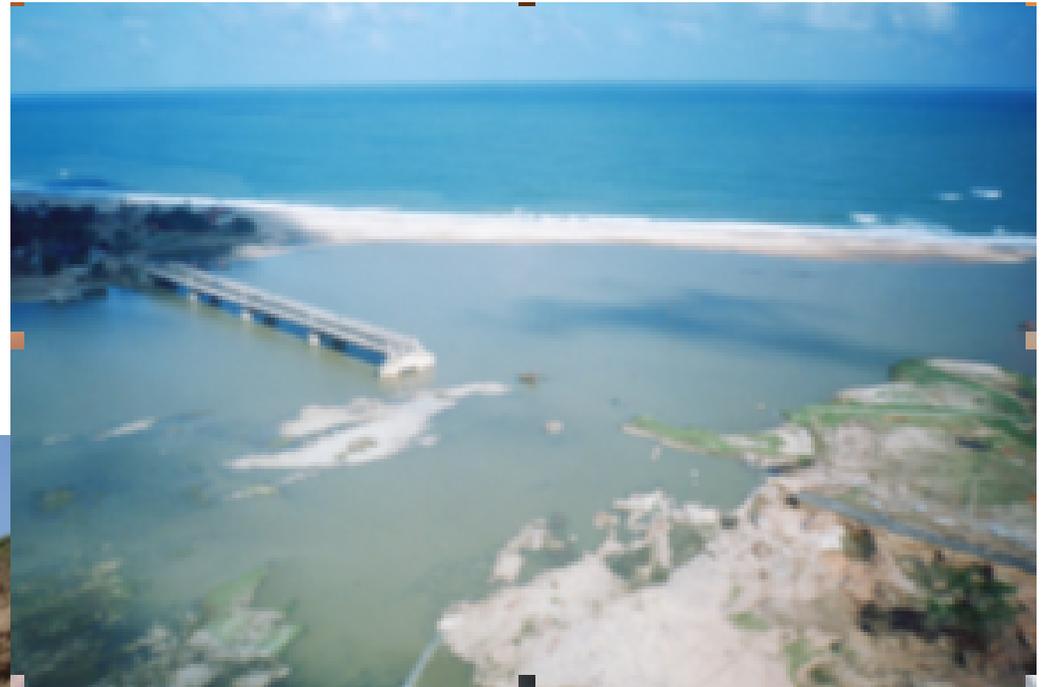


**GALLE HARBOUR – 27 DEC 04**



# Sri Lanka Tsunami Reconstruction

## Arugam Bay

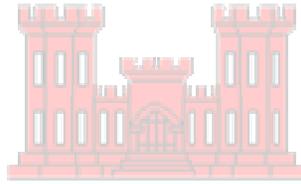




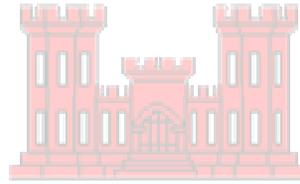
# Far East District (Korea) - Sri Lanka

## Tsunami Reconstruction





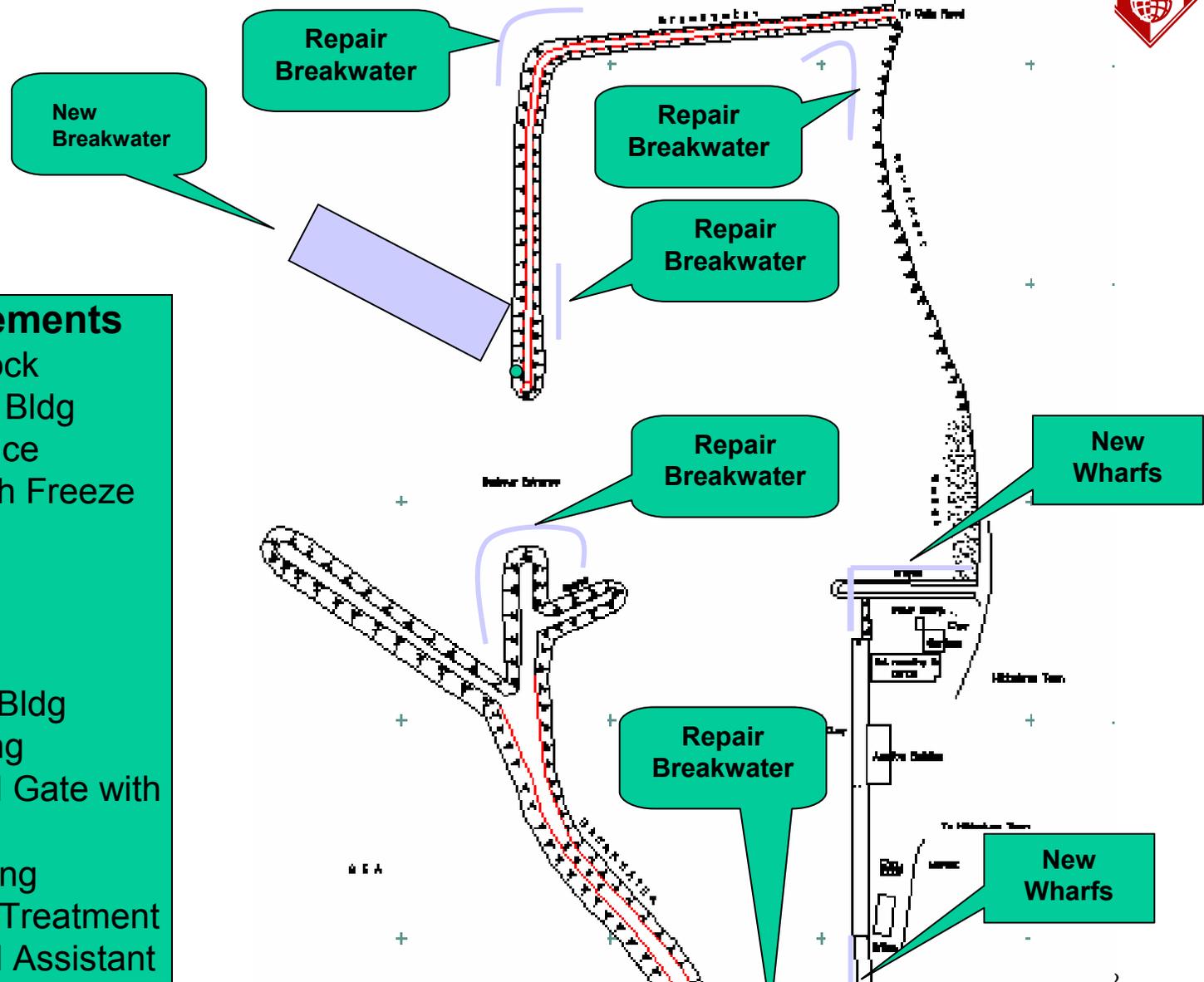
## Vocational Training Facilities



# Sri Lanka Tsunami Reconstruction

## Fishery Small Boat Harbors

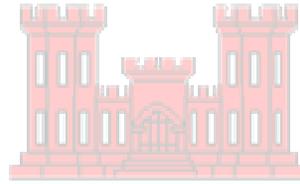




## • Harbor Improvements

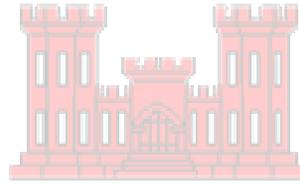
- New Slipway Drydock
- Boat Motor Repair Bldg
- Fish Processing & Ice Plant, Storage, Flash Freeze
- Fuel station
- Fish Auction Bldg
- Net Mending Bldg
- Community Bldg
- Fisherman's Toilet Bldg
- Harbor Yard Lighting
- Security Guard and Gate with Boundary wall
- Fish Waste Recycling
- Water/Wastewater 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! 😊