Public & Private Sector Partnerships

Helping communities in need

Tsunami Relief Efforts
WHO Conference Panel 2.17 – Phuket, Thailand
The IBM Crisis Response Team

- **Responsibilities**
  - International Humanitarian Relief
  - Risk & Insurance Management
  - Government & Private Sector Services

On-site emergency management experience:
70+ Global Events, 49 Countries

Canada, France, Greece, Colombia, Ecuador, Venezuela, Turkey, Virgin Islands, Taiwan, Japan, India, Kosovo, Grand Cayman, El Salvador, Peru, Rwanda, South Africa, Italy, Germany, USA, Thailand, Indonesia, Sri Lanka, Italy, Germany, China, United Kingdom, Bermuda, Australia, Brazil, Grenada, Mexico, and many more....
# Continuity of Life Disruptions

## Social, Political, Economic, Environmental

### Business
- Employees
- Customers
- Facilities
- Operations
- Insurance
- Suppliers
- Reputation
- Stockholders
- Recovery

### Community
- Victims
- Families
- Food, Shelter, Medicine
- Trauma
- Lifelines
- Emergency Services
- Schools, Hospitals
- Government
- Economy

### Personal
Widespread Destruction

Over 200,000 killed or missing

Photo taken at Teunom, Indonesia - Helicopter Landing Zone (LZ)

Body bags awaiting pick-up and burial

Coastline destruction in Banda Aceh
Field Operations

Political, Social, Economic, & Environmental Issues

• Apocalyptic Scale: worst human tragedy to hit the region since WWII
• Volume of fatalities, missing, injured, and survivors needing help & support
• Individual, Bureaucratic, and Departmental Interests – “Stovepipes”
• Rapidly changing environment & unique support requirements
• Infrastructure Damage: communications, power, roads, water supply
• Resource needs - supplies, personnel, financial
• Chaos, Trauma & Emotional Stress
• Policies, Regulations & Practices
• Political, Military & Insurgency Considerations
• International Media Focus, Living Conditions
Technology Support:

Primary IT & Communications Support Goals

• Re-establish critical communication support capabilities
• Improve access to critical “Real-Time” decision support information
• Implement data triage procedures
• Provide decision makers with high value information matched against pre-defined decision support variables
• Design for a “high stress” limited resource environment
• Facilitate information sharing and communication between relief organizations
• Identify and reduce redundant efforts
• Deliver flexible, scalable, and secure technology solutions
• Provide comprehensive reporting & linkage to legacy systems
• Adapt systems to meet regulatory, cultural, social, skill and usage requirements
• Global crisis response and preparedness systems should be “Open System” design
IBM Response Worldwide

- IBM’s initial allocation of US $1 million increased to US $3 million. On-site efforts in 4 countries coordinated and managed by IBM Crisis Response Team.

- IBM Clubs directing donations to Red Crescent, Red Cross, & other relief organizations

- IBM Club drop boxes collected blankets, mosquito nets, medicines & utensils

- Employees donate compensation or take unpaid time off to travel at own expense to assist

  IBM employees donated more than $1.2 million either directly to the Red Cross or through payroll deduction programs IBM instituted.
IBM Secure Wireless Infrastructure System (SWIS) Installed in Banda Aceh and Teunom

**Voice**
- Each SWIS includes 20 VoIP phones and can support hundreds of users.

**Data & Video**
- SWIS terminals support up to 500 users, with a 3 MB transfer rate

IBM Crisis Response Team installs and adjusts wireless network communications hardware in Teunom camp
Emergency Management System Components

EMS — Emergency Management System

• Incident Reporting / Management
• GIS – location and tracking
• Contact and Personnel Management
• Equipment Resource Management
• Tasking & Assignments
• Warehouse and Facilities Tracking & Storage
• Routing & Road Condition Status
• Logistics Management
• Donation Management & Volunteer Coordination
• Incident Planning & Analysis
• Financial Tracking
• Decision Support, Data Consolidation, Report Generation
Command & Control System Methodology

Incident Command

Operations Section
- Resources
- Situation
- Demobilization
- Documentation

Planning Section
- Service Branch
  - Communications
  - Medical
  - Food

Logistics Section
- Support
  - Supply
  - Facilities
  - Ground Support

Finance & Administration Section
- Time Unit
- Cost Unit
- Compensation
- Procurement

Staging
- Branches, Divisions
  & Groups
India – Tsunami Relief

**Impacted Areas:**

- State of Tamil Nadu: Major cities - Nagapattinam, Cuddalore, Pondicherry, Karikal
- Andaman & Nicobar Islands (over 500): Major city – Port Blair

**India – IBM Crisis Response Team Support**

- Field response teams assigned and deployed to major damage sites
- Crisis Management and Application Development & Deployment teams established
- Applications Developed by IBM: Tsunami Crisis Management Information System
  - Relief Materials Logistic Management System
  - Prime Minister National Relief Fund Management System
  - Victim Tracking (alive, dead, photos, individuals, families)
  - Relief Camp Management & ID Card System (biometric, fingerprint, photo)
  - Report Generation and Statistical Analysis (District & Village level)
  - Helpline Services Tracking (capture service requests & monitor status)
  - Tracking early signs of disease outbreaks (cooperative effort with WHO)
- Under Development: Reconstruction decision support & project management
- Equipment Donations: IBM Thinkpads, servers, hubs, KidSmart for Schools
India: Tsunami Crisis Management Information System

Open source, Linux Operating System, MYSQL Database
SRI LANKA  IBM Tsunami Relief

• **Impacted Areas:**
  • Galle: Massive costal damage

**Sri Lanka – IBM Crisis Response Team Support**

• Deployment of IBM personnel to design network, staff 24 hour helpdesk and install IBM Thinkpads supporting the government CNO (central network operations)
• Led development of Emergency Management Software “SAHANA” system
  • Organization Registry, Request Management System
  • Personnel and Camp Registry, Assistance Database
  • Trained 300 student volunteers on use of “SAHANA” for data entry
• Development and Implementation of Trauma Counseling Training Program
  • Supported the National Child Protection Authority (NCPA)
  • Train-the-Trainer for Trauma Counseling, Worked in relief camps
  • Automated abused child “drop-in-center” tracking software
• Developed organizational structure for long term emergency program management and operations. Plan presented to former US Presidents Clinton and Bush
• Donated 400 IBM Thinkpad Laptops and Servers along with KidSmart for Schools
SAHANA - Relief Management System (open source)
IBM Trauma Counseling Training Program

Tsunami Memory Drawings by school children

Luisa (IBM Trauma PhD) greeting children at Boosa relief camp

Terri (IBM CRT partner) with her new friends at a relief camp
THAILAND  IBM Tsunami Relief

• **Impacted Areas:**
  
  • Phuket, Narentorn and surrounding villages

**Thailand – IBM Crisis Response Team Support**

• Deployment of IBM trained personnel to provide on-site support for temporary government offices and NGO’s.
• Helpdesk support for Ministry of Information and Communication Technology
• Provided equipment and support to damaged international consulates
• Implemented Disaster Portal on Web in cooperation with MICT
  
  • [www.ThaiTsunami.com](http://www.ThaiTsunami.com)
  
  • Database Consolidation for missing / dead–DNA–Biometric tags / injured
  
  • Photo ID management
  
  • System Infrastructure, Administration, Application, & Management Support
• Development: National Critical Incident Management Support System
• Donated IBM Thinkpad PC’s, Servers, Printers, Scanners, Routers & Hubs
• Vectormax Software for multimedia conferences
• IBM Kid Smart for Schools
INDONESIA  IBM Tsunami Relief

• Impacted Areas:
  • Sumatra: Aceh Province: Cities- Banda Aceh, Lamno, Teunom, Meulaboh, Calang, Lhoknga, Leupung

Indonesia – IBM Crisis Response Team Support

• Technology support for Indonesia Red Cross
• Local IBM Critical Incident Support Team Identified & Assigned to Tsunami Relief
• Management Information System for Aceh Disaster (SIMBA) developed
  • Client and Server version developed and tested
  • Internal Displaced Person (IDP) registration and tracking
  • Logistics Management, Event Reporting, Relief Unit Administration
  • Data Consolidation and Cooperative Collaboration with UN, NGO’s
• Reporting and Data Management
• Communication Systems – SWIS: high speed internet & Voice over IP
• Equipment Donated: IBM Thinkpad Laptop PC’s, IBM Servers
• IBM Kid Smart for Schools, Relief Camps and Orphanages in Aceh
Management Information System for Aceh Disaster
Sistem Informasi Manajemen Benconna Aceh (SIMBA)

Training Students on SIMBA

Requirements meeting with Government

IBM Indonesia Programming Team in Aceh

INFORMASI IDP
Masukkan data IDP (form A1) / Enter IDP data (Form A1)
Listing data IDP / List IDP data

LOGISTIK
Penerimaan barang / Incoming material
Pengeluaran barang / Outgoing material
Transit barang / Transit material
Listing transaksi / Transaction listing

PELAPORAN
Masukkan Laporan / Enter report
Listing & cari laporan / Listing & search report

POSKO
Info Posko / Posko info
Staff Posko / Posko staffing
Asset Posko / Posko asset
Data transfer
Data transfer status

SYSTEM ADMIN
Create new Posko
Edit this Posko
Test transfer
Create user
Administer user
IBM Crisis Response Team

Transportation

Helicopters courtesy of the Government of Japan

Chinook loaded with IBM SWIS

Security

Indonesia Military Escort

High risk location

Meeting with General Bambang

Living Conditions

Heat: 110 degrees

Humidity: unbelievable

Sleeping under mosquito nets
## Public & Private Sector Partnerships: Collaboration Challenges

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Business</th>
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<td>Difficulty Matching Needs with Resources</td>
<td>Difficulty determining demand for potential in-kind contribution</td>
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<td>Offers are sometimes inappropriate to the need</td>
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<td>Frustration at being seen merely a source of funds.</td>
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<td>Desire to contribute in areas of core competency</td>
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<td>Lack of appropriate rules for engagement</td>
<td>Lack of understanding of Government role in emergency relief, leading to</td>
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<td>a lack of clarity on ways to engage with the Government.</td>
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<td>Few codified internal processes or guidelines to determine appropriate response</td>
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<td>Difficulty in establishing common ground</td>
<td>Lack of clarity on potential strategic value of engagement in relief efforts</td>
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<td>Frustration at perceived Government mistrust of business motivations</td>
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<td>Difficulty forecasting future needs</td>
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<td>Scarce resources in times of emergency to evaluate in-kind offers and manage new collaborations</td>
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<td>Limited experience working with the private sector, particularly in emergency relief operations</td>
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Dalberg Global Development Advisors
Public & Private Sector Partnerships:

Cooperative, Response & Recovery Challenges

- Examine potential redundancies and duplication of effort
- Identify Gaps: lack of service, support, and resources compared against victim, community, and government needs.
- Examine local available skill base – keep as much work local as possible
- Examine excessive response and inadequate response issues
- Identify minimal standards and best practices
- Understand the economic consequences of relief
- Examine rebuilding issues including priorities, cost, resources, and labor
- Understand the social, political, and environmental impact
- Examine trade and pricing issues including predatory pricing following the event
- Acknowledge and praise participants in public / private partnerships
- Learn from prior disasters and mistakes to reduce exposures
- Communicate and share information with partners on a regular basis
Public & Private Sector Partnerships: Collaboration Strategies

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<th>Key Steps to Take</th>
<th>Output</th>
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<td>Difficulty Matching Needs with Resources</td>
<td>- Business:</td>
<td>Database to match resources with needs</td>
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<tr>
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<td>- Identify core competencies and resources</td>
<td>Service packages for emergencies, allowing businesses to quickly mobilize in face of disasters</td>
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<td>- Develop internal systems and processes for response</td>
<td>Internal emergency action plans for</td>
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<td>- Government</td>
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<td>- Map and estimate standard needs in crisis</td>
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<td>- Develop systems and framework to undertake dynamic assessment of emergency needs</td>
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<td>Lack of appropriate rules for engagement</td>
<td>- Business &amp; Government</td>
<td>Internal guidelines outlining extent of, and priorities for, engagement</td>
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<td>- Develop internal guidelines for engagement and validate with appropriate stakeholders</td>
<td>Collaborative body providing oversight of engagement</td>
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<td>- Develop framework, create processes and management structures for collaboration through joint task forces</td>
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<td>- MOU between business and UN Liaison Office</td>
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<td>Difficulty in establishing common ground</td>
<td>- Business</td>
<td>Standby agreements outlining terms of engagement</td>
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<td>- Commit to providing a pre-determined set of resources when called upon</td>
<td>Standards and rules for communication to public and other stakeholders of engagement between business and government, UN, and</td>
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<td>- Develop clear internal rationale and principles for engagement in relief efforts and communication to relevant stakeholders.</td>
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<td>- Government</td>
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<td>- Engage in constructive dialogue on motivations for collaboration and set clear mutual expectations</td>
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Dalberg Global Development Advisors
Current Status & Long Term Perspective

United Nations:

• **STATUS**
  
  • The IBM Crisis Response Team led an effort to build a strong sense of public / private sector disaster response and relief partnership among the multiple UN agencies, NGO’s and independent government representatives.
  
  • The IBM CRT pro-actively met and worked with senior UN and NGO on-site representatives including:
    
    • UN Assistant Secretary General for Humanitarian Affairs - reporting directly to the UN General Secretary
    • UN Joint Logistics Command (UNJLC) - central command coordination for UN field operations – The UN Joint Logistics Commander worked with the IBM SIMBA software development team to refine the applications and reports being utilized by UN agencies for the consolidation of logistics and disaster management information for the government of Indonesia.
    • UNICEF – child health, education, equality and protection services
    • CARE – international relief
    • WHO – World Health Organization
    • UNHCR – UN High Commissioner for Refugees, UNDP – UN Development Program
    • OCHA – UN Office of Coordination for Humanitarian Affairs

• **GLOBAL PUBLIC / PRIVATE SECTOR PARTNERSHIPS**
  
  • The IBM Crisis Response Team is working directly with the CIO’s and senior management team at WHO, OCHA and UNJLC. The UN has expressed a strong desire to form a strategic relationship with Private Business Sector in preparation and response to international crisis events. IBM’s UN support offices in Geneva are also involved in this effort.
  
  • The IBM Crisis Response Team is working with IBM Watson Research Labs on consolidating / integrating the open systems that were developed in India, Sri-Lanka, Thailand and Indonesia. The development of an integrated and comprehensive crisis management system that is embraced by UN agencies will help multiple countries and communities to pro-actively prepare for and respond to disasters.
Next Steps:

Commitment, Consolidation, Enhancement, Deployment

• Build on the success of the government, UN, NGO and private sector joint development programs which evolved during the tsunami relief effort and highlighted the benefit of public/private partnerships.
• Reach out to government and private sector representatives to initiate the partnership process. Sign MOU’s with the business sector.
• Establish an official Business and UN Liaison office to build relationships between the private and public sector along with providing coordination, resource management, and reporting functions for business, UN, NGO, and government field operations during times of crisis.
• Embrace an “open systems” philosophy to address international, national, state, and local government requirements for independence and flexibility.
• Design solutions that can be easily adapted to address social, regulatory, and operational needs while delivering preparedness, response and recovery benefits.
• Build a critical incident plan that includes the private/public sector as stakeholders with multiple mutual interests and objectives in rapid response, accelerated recovery, and financial/social welfare.
• Develop and implement a practice of improved communications, coordination, and sharing of mutually beneficial information across response agencies, NGO’s, local governments, and private sector groups involved in the relief and recovery effort.