Group Discussion
Group A) Housing

Shelter and Settlements
- Who is participating in whose process?-

Chair: H.E. Mohamed Mauroof Jameel, 
Minister, Ministry of Construction and Public Infrastructure, Republic of Maldives
Co-Chair: Prof. Ian Davis
Rapporteur/Facilitator: Ms. Mariko Sato, Coordinator, Rapid Response for Settlements in Crisis, UN-HABITAT

Session A1: Housing and Land Policy: Overview

H.E. Mauroof, the Minister, opened the session introducing the objectives of the session, which are to examine the policies, strategies and approaches in housing sector adopted by governments and to share lessons learnt.

The session started with an overview: “Supporting a Peoples’ Process to Recovery” presented by Mr. Lalith Lankatilleke from the UN-HABITAT Regional Office for Asia and the Pacific. He explained the benefits of supporting the communities’ own rebuilding processes, and highlighted the importance for government and aid agencies to enable them to gradually rebuild on their own as follows:

Peoples’ Rebuilding Process:

We need to
- Trust people
- Recognize people’s organizations
- Let people take the lead in decision making and actions
- Facilitate construction by owners and communities - Cash grants or Community Contracts, rather than outside contractors
- Open bank accounts managed by communities for transparency

Results:
- Communities empowered – skills developed
- Employment and Economic opportunities generated
- Trust built amongst local partners and local authorities
- Community institutions built to be sustained to further the recovery process

The Chair invited the following country representatives to intervene in order to share their own experiences of their housing and land related policies for post-disaster situations:

- India: Dharam Pal, Commissioner Relief and Rehabilitation, Andaman and Nicobar Islands
- Indonesia: Bruno Dercon, on behalf of Said Faisal, Deputy to the Director of BRR
- Pakistan: Sher Afgan Khan Niazi, Director-General, Monitoring and Evaluation Wing, Earthquake Reconstruction and Rehabilitation Authority (ERRA)
- Maldives: Thoriqu Ibrahim, Director, Regional Development, Ministry of Planning and National Development

Presentations and policy discussions related to land and housing highlighted the following points:

- Outset - Clarification on policy where people can return or where people can not
- Imposition of “ad hoc” Buffer zones delays the recovery processes – hazard mapping should be known BEFORE disasters
- Land titling - security of tenure (especially for women) – quickly build on existing customary land titling and registration system
- Recognize that people prefer to go back to their places - No forced evictions
Priority for in-situ recovery – relocation as a last resort
Steps: 1.2.3 (tents, transitional, permanent) or 1.3? Countries had different experiences. Key is to use the investment made in 1, 2 in later stages
Housing Standards (space, finance, quality, safety, design) for equity
Shifting “provision” of housing to “enabling” housing
Guidelines/catalogues for shelter design for communities to choose.

Session A2: Lessons learnt

The following presentations were made to highlight some of the lessons learnt from international organizations and a research institute:

- Lessons Learnt from IFRC: Cynthia Burton
- Lessons Learnt from ADPC: Loy Rego
- Measuring Shelter Recovery in Aceh – Indonesia: Bruno Dercon
- For Safer Aceh against Earthquake Hazards: Kenji Okazaki

Presentations and discussions highlighted the needs to focus the following:

- Shelter is the priority and crucial component of the recovery – hitting five nails with the same hammer:
  - Community solidarity - resilience
  - Psycho-social recovery
  - Skills development
  - Local Economic recovery and income generation
  - Investment remains with communities
- Families, especially women should design houses with technical guidance
- Consultations, Communication, Outreach – letting people know the policies, standards, guidelines for shelter reconstruction with innovative methods (e.g. using media, printing recommended designs on T-shirts or cement bags, community notice boards)
- Use locally available skills sets and building materials and recycling rubble
- Stimulate local entrepreneurship for building materials
- Damage assessment by communities themselves
- Community construction is better in quality and speed with greater satisfaction
- Earlier entry into recovery mode leads to better results
- Aiming at the holistic settlements recovery, beyond ‘houses only’
- In addition to community engagements, high quality facilitation required for early return
- Institutionalise the community based recovery process for sustainability and settlements planning.
- Community institutions need to be strengthened and sustained as a vehicle for risk reduction and disaster prevention for “building back better and safer”
- Simply providing houses does not work as it creates aid dependency (“no donations” for shelter!)
- Capacity building of local authorities to consult and inform of the policy, standards, and guidelines and to facilitate the communities’ involvement in settlements planning.

Conclusion of the Session

We are NOT re-building structures or houses BUT re-building homes, community institutions, governance system, people’s confidence and resilience.
Session A: Housing
Shelter and Settlements
Who is participating in whose process?

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Co-Chair: Prof. Ian Davis
Facilitator: Mariko Sato, UN-HABITAT

Housing and Land Policy, Strategy, Approach

Peoples’ Rebuilding Process:
We need:
- Trust people
- Let people take the lead in decision making and actions
- Construction by owners and communities - Cash Injections or Community Contracts, rather than outside contractors
- Open bank accounts for transparency

Results:
- Communities empowered – skills developed
- Employment and Economic opportunities generated
- Trust built around with local partners and local authorities
- Community institutions built can be carried to further recovery and set model for risk reduction and disaster prevention

Lessons Learnt
- Shelter is the priority – crucial to recovery – hitting five nails with the same hammer:
  - Community solidarity
  - Psychosocial recovery
  - Skill development
  - Income generation
  - Investment remains with communities
- Communities (women) should design houses with guidance
- Consultations and Communication important (media, T-shirts, cement bags, community notice boards)
- Use locally available skills sets and building materials – recycling the rubble
- Damage assessment by communities

Lessons Learnt
- Community construction was better in quality and speed with greater satisfaction.
- Institutionalise the community based recovery process for sustainability and settlements planning.
- Simply providing houses does not work – no donations – creating aid dependency
- We are NOT re-building structures – houses BUT re-building homes, community institutions, system, and resilience.

Community is Immunity

Fight the Virus!

Immunity - Resources
- Wealth
- Health
- Education

Immunity - Income
- Employment
- Skills
- Money

Immunity - Education
- Knowledge
- Literacy
- Training

Immunity - Health
- Medicine
- Vaccines
- Hygiene

Immunity - Nutrition
- Food
- Water
- Agriculture

Immunity - Security
- Peace
- Safety
- Law

Immunity - Environment
- Air
- Water
- Land

Immunity - Mindset
- Positive
- Hope
- Resilience
Lalith Lankatilleke

Rebuilding Homes and Communities After Disasters

Supporting a People's Process of Recovery

Examples

Assumption:
- Governments in Asia-Pacific Region have adopted Participatory Community Based Approach to Development.

Overview:
- Do Governments adopt the same policies for disaster recovery?
- The answer is Yes, but with significant variations.

The Rationale for Supporting a People's Process of Resettlement and Rebuilding

- Affected people are at the centre of decision making and action of their own recovery
- Responsible for their development rather than being recipients of hand out
- Helps in overcoming the trauma of the disaster rather than sitting and watching outsiders provide
- Affected people internalize the recovery process: subjects of recovery rather than objects external aid

The Rationale for Supporting a People's Process of Resettlement and Rebuilding

- People can address their own particular needs rather than receiving aid packages that do not necessarily meet their needs
- Can optimize the resources available to achieve a better outcome rather than standardized packages
- Large portion of the investment on reconstruction remains within the community
- Creates employment and income generating opportunities for the affected people
- Improves the skill level of the people
- Mobilizes the creativity and ingenuity of the people
- Transparent and accountable to the community

Supporting and Enabling the People's Process of Recovery

- Trust the people
- Respect the primacy of the needs of the families
- Decision making has to be devolved to the point of action
- Recognition of people's organisations; their capacities by local authorities
- Capacity of local authorities need to be developed to strengthen this partnership.

Supporting and Enabling the People's Process of Recovery

- Resolution of land issues rapidly
- Mobilization of people
- Training to build back better
- Provision of cash grant or community contracts
- Technical assistance to build back better
- Generate a process that would allow every family in need to build a basic secure home, which can be improved incrementally
ANDAMAN AND NICOBAR ISLANDS (INDIA)

POST TSUNAMI RESTORATION / RECONSTRUCTION (Housing)

By

Dharam Pal
Commissioner Relief & Rehabilitation
JANUARY 2007

Beautiful Emerald Islands

Vast Pristine Beaches

Picturesque beaches

The Tropical Evergreen Forests

"OH! BEAUTY! did not come with convection or house plans... you tried to help us regain our confidence in ourselves... something that the tsunami had destroyed"
—Bimalika, Chairperson, Earthquake CRC, Galle
ANDAMAN AND NICOBAR ISLANDS AT A GLANCE

Geographical area: 8249 sq km (Length - 739 Km)
Total Islands: 572
Inhabited Islands: 39
Coast Line: 1982 Km
16 Atolls & 750 Islands
Exclusive Economic Zone (EEZ): 114 Kms (210 Kms)
Forest Cover: 62% (Notified + Deemed)
(Mah - 21%)
Seismic Zone: IV (Most severe)
Population: 364360
Infant Mortality Rate (IMR): 36 (Infants 0 - 60)
Literacy: 69% (M-66%, F-75%)
Average Annual Rainfall: 2030 mm
Gross Per Capita Income (GPI): 22133
at current price: Rs. 30,674/ - (6886)
at constant price: Rs. 17,647/- (5260)

Impact of Tsunami

GEOMORPHOLOGICAL CHANGES

- Islands have physically moved horizontally by 2 to 3 meter in South Western direction towards the mainland and rotated in anticlockwise direction
- Southern Group (Great Nicobar) has sunk by about 1.4 to 1.5 meter - Coast line has moved inland
- The Northern group has risen by about 0.5 m and 0.8- Coast line has receded
- This has caused submergence of 4000 hectares of agriculture land and under water
IMMEDIATE CONSEQUENCES

OF EARTHQUAKE / TSUNAMI

- Damage to roads and bridges
- Damage to ports, jetties and ships
- Damage to water supply
- Damage to fields and settlement
- Damage to communication lines
- Damage to Power supply

LOSS OF LIVES

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dead &amp; Missing</td>
<td>1577</td>
</tr>
<tr>
<td>Adult</td>
<td>2284</td>
</tr>
<tr>
<td>Children</td>
<td>177</td>
</tr>
<tr>
<td>Mela</td>
<td>1733</td>
</tr>
<tr>
<td>Total</td>
<td>2544</td>
</tr>
<tr>
<td>N/C</td>
<td>363</td>
</tr>
</tbody>
</table>

TSUNAMI DAMAGES AT A GLANCE

<table>
<thead>
<tr>
<th>Category</th>
<th>Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Houses Damaged</td>
<td>5879 (90,000 persons)</td>
</tr>
<tr>
<td>Damage assessment</td>
<td>Rs. 2000 cr. (672bn)</td>
</tr>
<tr>
<td>Physical damages</td>
<td></td>
</tr>
<tr>
<td>Jetties &amp; Wharfs</td>
<td>65</td>
</tr>
<tr>
<td>Foul Houses</td>
<td>37 MH</td>
</tr>
<tr>
<td>Roads</td>
<td>210 KM</td>
</tr>
<tr>
<td>Shipping Vessels</td>
<td>0</td>
</tr>
<tr>
<td>Fishing Boats</td>
<td>2100</td>
</tr>
<tr>
<td>Schools</td>
<td>65</td>
</tr>
<tr>
<td>Agricultural Land</td>
<td>60069 Hectares</td>
</tr>
<tr>
<td>Health Centres</td>
<td>24</td>
</tr>
<tr>
<td>Livestock</td>
<td>1,87,677</td>
</tr>
</tbody>
</table>

RELIEF AND REHABILITATION

<table>
<thead>
<tr>
<th>Category</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>An Order for transporting relief materials and personnel</td>
<td>1000</td>
</tr>
<tr>
<td>Relocation Relief Camps</td>
<td>370</td>
</tr>
<tr>
<td>Persons</td>
<td>4000</td>
</tr>
<tr>
<td>Intermediate shelters</td>
<td></td>
</tr>
<tr>
<td>No. of shelter made</td>
<td>9300</td>
</tr>
<tr>
<td>Houses</td>
<td>5 months</td>
</tr>
<tr>
<td>Location</td>
<td>55</td>
</tr>
<tr>
<td>Material transported</td>
<td>4,800 MT</td>
</tr>
<tr>
<td>Total shelter materials transported</td>
<td>4,800 MT</td>
</tr>
</tbody>
</table>

TSUNAMI RELIEF RESPONSE

INTERMEDIATE SHELTERS
Group A

INTERMEDIATE SHELTERS

CHALLENGES OF CONSTRUCTION IN ISLANDS
- Scattered Islands
- Distance from main land: 120 km
- Construction materials: Transportation from main land
- Jetty at Chowpatty, Terengganu, Kuching, & Wangi-Wangi can not handle caissons 200-217 M X 3200 M, requires transportation through stem boating
- Suffering from heavy rain during rough weather conditions
- Limited working season: 4-5 months (rainy season)
- Disinclination of labor and staff to work in remote islands

SPECIAL FEATURES OF INTERMEDIATE SHELTERS
- Simple design and easy to be built by beneficiaries themselves
- Cyclone resistant - Designed to withstand Wind Velocity of about 100 MPH
- Earthquake resistant - Seismic Zone V conditions
- Constructed within 3 months
- Electricity, water distribution community centres
- Rainwater harvesting provisions
- Average covered area: 36 sq m including Toilet & Kitchen and first floor cost 2400 in 99
- Raising CGI sheets
- Walling CGI sheets
- Frame of steel or wooden poles

MAJOR HIGHLIGHTS OF RELIEF PHASE
- Relief camp sites (7) finalized within 24 hours and people started arriving immediately thereafter
- Provision made for food, clothes, medicines for camps
- Power and water supply restored in camp areas
- No outbreak of any epidemics
- Intermediate shelters completed in 3 months and people housed by April 1995 before onset of monsoon rains
- Restoration of education at all islands: provision for schools made in shelter itself
- First aid centers to be supplied to affected beaches till date
- Tourists evacuated safely to the mainland

PHYSICAL INFRASTRUCTURE RESTORATION AT A GLANCE

<table>
<thead>
<tr>
<th>PORTS &amp; JETTIES</th>
<th>DAMAGED</th>
<th>REPAIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jetty - Worldwide</td>
<td>96</td>
<td>40</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Temporary jettys</td>
<td>10</td>
<td>30</td>
</tr>
</tbody>
</table>

Total: 155 jetty additions at 280

<table>
<thead>
<tr>
<th>POWER</th>
<th>DAMAGE</th>
<th>REPAIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power stations</td>
<td>30</td>
<td>10 + 15</td>
</tr>
<tr>
<td>New Diesel Engines</td>
<td>37</td>
<td>45</td>
</tr>
<tr>
<td>T/L Lines</td>
<td>375</td>
<td>375 km</td>
</tr>
</tbody>
</table>

Total: 2.3 million units of diesel added at 400 units

ROADS
- 40 km badly damaged, 60 km partially damaged
- New roads: 10 km
- Total: 40 km
- Total: 124 km
### Consultation Process in Evolution of Design
- Three rounds of consultation with Local People, Tribal Councils, Rep. of Local Self Governments, M.P. AND NGOs
- Extensive Interaction among Administration, Experts & Locales/ Tribal Councils
- Group of Experts were involved in housing design

### Key Parameters of Concept & Design
- Space & Functional requirements
- Living style of Local people
- Design acceptability to Locals
- Eco-friendly construction
- Ease & Speed of construction

### Setting up of Prototype Models in Different Islands
- As a result of deliberations, Model Houses of different design were constructed at:
  - Little Andaman: 2 Models
  - Car Nicobar: 1 Model
  - Kamorta: 3 Models
  - Great Nicobar: 1 Model

### Prototype Designs Constructed

<table>
<thead>
<tr>
<th>Island</th>
<th>House of the Island</th>
<th>Total No. Permanent Shelters</th>
<th>Housewise Status as on 26.12.06</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Andaman</td>
<td>950</td>
<td>390</td>
<td>425</td>
</tr>
<tr>
<td>Little Andaman</td>
<td>1493</td>
<td>546</td>
<td>510</td>
</tr>
<tr>
<td>Car Nicobar</td>
<td>390</td>
<td>190</td>
<td>185</td>
</tr>
<tr>
<td>Kamorta</td>
<td>518</td>
<td>256</td>
<td>246</td>
</tr>
<tr>
<td>Great Nicobar</td>
<td>538</td>
<td>269</td>
<td>269</td>
</tr>
<tr>
<td>Total</td>
<td>3050</td>
<td>1095</td>
<td>1101</td>
</tr>
</tbody>
</table>

### Issues
- Land Use Policies
- Design of Permanent Houses
- Livelihood Envelopes with Permanent Houses
- Use of Local Construction Material
- Allotment of Houses and Ownership
- Development of Community Facilities and Connectivity
- Long term maintenance and repair of Permanent Houses
- New Life styles and occupational changes

Online Monitoring System for Construction of Permanent Shelters
www.andaman.gov.in
OFFLINE SHORT PRESENTATION ON
THE PROGRESS OF CONSTRUCTION
OF PERMANENT HOUSES

Bruno Dercon

Temporary Shelter Issues
- Mid 2005: Temporary Shelter Plan for Action (TSPA)
The main component of TSPA was the promise of up to 20,000 temporary shelter units provided by the International Federation of Red Cross/Red Crescent Societies and delivered and constructed via a consortium of 33 implementing partners including BRAC, Red Cross Societies, NGOs, UN agencies and donor institutions.

- October 2005 (CAPDI survey):
  - 16,500 households in barracks
  - 11,000 IFRS shelters set up
  - 20,000 households still in owner-built temp accommodation, on own property
  - (more conflict IDPs than tsunami IDPs)

Permanent Housing - Achievements
- Housing Programmes mainly targeted returned communities without resettlement requirements.
The housing reconstruction programme revolves around key issues, namely:
  - Households which completely lost their houses and land.
  - Houses which have become non-repairable and need to be rebuilt.
  - Tenants who lost the accommodation they were renting.
  - Squatters who lost their temporary shelters.

- Challenges:
  - Construction costs, quality of materials, logistics
  - Resettlement in lieu of damaged land
  - Community infrastructure
  - Housing for the poor and IDPs
  - Equity amongst affected groups
  - Land ownership certification and joint (gender-sensitive) titling
  - Housing finance and housing insurance
  - Spatial-environmental planning and disaster prevention
**SETTLEMENT RECOVERY AND SETTLEMENT DEVELOPMENT**

<table>
<thead>
<tr>
<th>Band/Region</th>
<th>Recovery &amp; Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band-e-Abad</td>
<td>6.1</td>
</tr>
<tr>
<td>Others</td>
<td>5.3</td>
</tr>
<tr>
<td>Aurat Bazar</td>
<td>3.2</td>
</tr>
<tr>
<td>East Road</td>
<td>5.5</td>
</tr>
<tr>
<td>West Road</td>
<td>6.3</td>
</tr>
</tbody>
</table>

- Rebuilding is to be owner-driven
- Promote hazard-resistant construction standard and designs
- Re-build in situ
- Rebuild with familiar methods and accessible materials
- Relocate facilities when necessary
- Uniform assistance package
- Coord multiple reconstruction initiatives

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**Housing**

**Training**

**Construction Material Hub**

**Rural Housing - Update**

- All houses assessed and MOUs signed.
- 39,6435 beneficiaries given Rs. 27,924 Bn, out of 459,367 cases (94.4 %), 37,123 cases fallen into Category of Negligible Damage.
- 75,638 beneficiaries given Rs. 5.5 Bn by PPAF, out of 122,332 beneficiaries (65%); 3,861 cases fallen into 3rd category.
- 478,253 (96%) beneficiaries given Rs. 33.65 billion as 2nd installment i.e. (Rs. 75,000 and Rs. 50,000) of housing cash grants.
- 19,836 beneficiaries given Rs. 50.26 Million as 3rd installment.

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**Sher Afgan Khan Niazi**

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**Principles**

- Final (Lintel level) inspection started in December 2006. Payment of fourth installment to eligible beneficiaries will during current month.
- Timber and RCC frame design added to existing menu.
- 11 Housing Reconstruction Centers established and made operational.
- 10,399 trainers trained at HRC level.
- 85000 artisans from different trades trained at the Union Council level.
- 9 Data Resource Centers established in the affected districts, where the particulars of beneficiaries are remotely updated, thus addressing their grievances at the grass root level.
- 110 construction material hubs established.