System and Processes for Disaster Management in Thailand: Mental Health Approach

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System and Processes for Disaster Management in Thailand: Mental Health Approach

I. History of crisis/Disaster in Thailand
II. System for mental health preparedness and responses for disasters in Thailand
III. Experiences
IV. Challenges
V. Lesson Learned
I. Disasters in Thailand
# List of disasters in Thailand

## Natural disasters (1962 – 2012)

<table>
<thead>
<tr>
<th>Date</th>
<th>Province</th>
<th>Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 1962</td>
<td>Tropical Storm Harriet</td>
<td>900</td>
</tr>
<tr>
<td>November 1988</td>
<td>Landslides</td>
<td>12</td>
</tr>
<tr>
<td>November 1989</td>
<td>Typhoon Gay</td>
<td>833</td>
</tr>
<tr>
<td>October 1990</td>
<td>Tropical Storm Ira</td>
<td>24</td>
</tr>
<tr>
<td>November 1993</td>
<td>A tropical depression</td>
<td>23</td>
</tr>
<tr>
<td>August 1997</td>
<td>Tropical Storm Zita</td>
<td>49</td>
</tr>
</tbody>
</table>
List of disasters in Thailand (cont.)

**Natural disasters**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Province</th>
<th>Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 1997</td>
<td>Tropical Storm Linda</td>
<td>Nakhon Si Thammarat</td>
<td>164</td>
</tr>
<tr>
<td>November 2000</td>
<td>Flooding</td>
<td>Songkhla Province</td>
<td>26</td>
</tr>
<tr>
<td>May 2001</td>
<td>A landslide</td>
<td>Phrae</td>
<td>43</td>
</tr>
<tr>
<td>August 2001</td>
<td>A landslide</td>
<td>Phetchabun</td>
<td>136</td>
</tr>
<tr>
<td>December 2004</td>
<td>tsunami</td>
<td>west coast of Southern</td>
<td>5,392</td>
</tr>
<tr>
<td>May 2006</td>
<td>Heavy rainfall caused flash flooding and landslides</td>
<td>Uttaradit, Sukhothai, Phrae, Lampang and Nan</td>
<td>87</td>
</tr>
</tbody>
</table>
# List of disasters in Thailand (cont.)

## Natural disasters

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2006</td>
<td>Remnants of Typhoon Xangsane passed over Thailand</td>
<td>47</td>
</tr>
</tbody>
</table>
| October–December 2010 | Flooding in multiple regions  
- Southern Thailand  
- Upper parts of the country | 80    |
| July–January 2011–2012 | Widespread flooding in 65 provinces                                           | 815   |
Human-generated disaster

- Non intentional/technological
  - Industrial accident (eg. oil spill in Rayong Province)
  - Transportation accident (eg. Plan crash)
  - Ecological/environmental destruction
  - Miscellaneous accident

- Intentional
  - Ethnic conflict
  - Political conflict
Man made disaster (Violence) In Thailand
II. System for mental health preparedness and responses for disasters in Thailand
Administrative System for Mental Health Preparedness and Response in Disasters

- **Central administration**
  - Center for Mental Health Preparedness and Response (CMHPR) at the Department of Mental Health

- **Provincial administration**
  - Mental Health Crisis Centers (MCC)/ Mental Health Healing Center (RMHC)
    - Community, provincial and general hospitals
    - Regional psychiatric hospitals
    - Mental Health Crisis Assessment and Treatment Team (MCATT)
1. Management – guideline manuals to drills/tabletop exercises

– Guidelines for mental health preparedness and responses in natural disasters
  • National level
  • Mental health professionals in psychiatric hospitals
  • Health professionals in community and provincial hospitals

– Guidelines for mental health preparedness and responses in human-made disasters
Supportive System for Mental Health Preparedness and Response in Disasters (cont.)

2. Tools for psychological screening and assessments
   - Screening tools for mental health problems – PISCES-18
   - Diagnostic tools - M.I.N.I

3. Interventions
   - Resiliency programs
   - Psychological first aid manual/training programs
   - Crisis intervention manual/training programs
   - Trauma-related treatment manual/training programs
4. Information system

   Record form and reporting system

   Internet-based database system

5. Research

   Cohort studies

   Floods and mudslides in northern provinces

   Unrest in southernmost provinces
III. Experiences

• Psychological care for the victims of the unrest in the 4 southernmost provinces

• Psychological relief efforts for the victims of 2004 Indian Ocean Tsunami

• A cohort of the victims in the 2006 floods/mudslides in Uttaradit province, northern Thailand
• Southernmost area (Pattani, Yala, Narathiwat, and some parts of Songkla) have faced continuous violence problems since 2004.
Violence in Southernmost provinces of Thailand
Jan 2004– Apr 2014

Incident 14,128 times
Death 6,097
Injured 10,908
(Source: Deep South Watch 2014)

Widows 2,705
Orphans 5,686
(Source: Ministry of social development and human Security on 31 March 2014)

incident 4 times/ day
death 2 person/ day
Injured 3 person/ day
No.of children affected 4.94 person/ day
National Budget for Problem Solution and Development of the Southernmost Provinces from 2004 to 2014
B 206,094.440 Million

Source: The Bureau of the Budget, 2014
Target Group for psychological support

General Population

Risk Group

Victim

1.8 Million

The Military, Paramilitaries, Police, Teacher

Direct, Indirect Injury, Family

Victim

Direct, Indirect Injury, Family
Intervention for Target Group

Affected People

- Healing Assistance from Gov.
  - Psychical & Mental Health

Risk Group

- Giving Knowledge/Technique of
  - Taking care of themselves
  - Taking care of each other
  - Taking care of others

General Population

- Giving Knowledge through Media
  - Relaxation technique
  - Counseling
  - Hotline 1323 Information line 166
Psychological Interventions in Crisis

Negative Life Event

Stress Reactions

Psychological Crisis

Equilibrium Restoration

Crisis Resolution

Psychiatric Treatments

Mental Disorders

Psychological First Aid

Crisis Intervention

Psycho-social Rehabilitation
Strategy 1:

Strengthen mental health crisis services at the community/general hospitals.

- Established the Rehabilitation and Mental Health Healing Center (RMHC) in 37 community/general hospitals and employed new psychologists to work at the RMHC (1-3 psychologists/hospital (since 2007))
- Total 74 psychologist
- In hospital : In/out patient care
- **Community** : Home visit activity
  (at least 3 times/case)
คู่มือ
การเยี่ยมบ้านครอบครัวผู้ป่วยในบัตรประจำตัว
จากสถานการณ์ความไม่สงบในจังหวัดชายแดนภาคใต้
MORAL SUPPORT
Mobile clinic / Home visit
Strategy 2:

Training and promote psychological care program (man made disaster) for health personnels

- Provided basic and advanced training courses for health personnel
- Master degree for psychiatric nurse
- PG training for 4 months
After training:

Provide psychological support for the population at risk.

- Provided a resiliency enhancement training course for local NGO, teachers, military, police.
- Provided a training course on stress management for CMH network.
Strategies and Programs

Strategy 3:

Strengthen local mental health networks

- Provided basic training courses on Psychological First Aid (PFA) for village health volunteers, related NGO, community leader and religious leaders.
Strategies and Programs

Strategy 4:

Promote psychological self-care among affected population

Provide mental health education via local mass media
เยี่ยมหายได้รับผลการพบ
แมลงสาบการเจ็บป่วยไม่ส่ง ไม่ 3 ชั่วโมงนี้ช่วยเฝ้ากัน

การป้องกันภัยด้วย
รักษาความเย็น เมื่อย

โทรศัพท์ 0-7365-1169

การผนังคลายความเครียด
Cara
menghilangkan
serabut

โทรศัพท์ 073-651507
## Widows Group/club

- Total **28** clubs
  - Pattani  **14** clubs
  - Yala  **8** clubs
  - Narathiwat  **6** clubs
Materials for widows
Materials for children
Strategies and Programs

Strategy 5:

Develop a qualified information system for providing psychological support.

- Established a surveillance system for mental health problems among the violence victims.
- Establishing an internet-based information network to share the database.
VMS: Violence related Mental Health Surveillance system
Training Workshop for Psychologists and Mental Health Workers
Geographic Information System (GIS)
Violent-Related Mental Health Surveillance (VMS) Report

October 20012- Sep 2014
Number of Violent Victims, Classified by Province (1,857 Cases)

- Songkla: 52 cases, 2.8%
- Pattani: 514 cases, 27.68%
- Narathiwat: 794 cases, 42.76%
- Yala: 497 cases, 26.76%
Number of Violent Children Victims, Classified by Age Group (0-14) (380 cases)

<table>
<thead>
<tr>
<th>Province</th>
<th>0-3 Cases</th>
<th>4-11 Cases</th>
<th>12-14 Cases</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yala</td>
<td>14 (27.45%)</td>
<td>12 (23.53%)</td>
<td>9 (18.62%)</td>
<td>35 (71.79%)</td>
</tr>
<tr>
<td>Pattani</td>
<td>9 (6.16%)</td>
<td>17 (11.62%)</td>
<td>29 (19.86%)</td>
<td>55 (34.31%)</td>
</tr>
<tr>
<td>Narathiw</td>
<td>12 (6.82%)</td>
<td>114 (64.77%)</td>
<td>114 (64.77%)</td>
<td>230 (60.53%)</td>
</tr>
<tr>
<td>Songkla</td>
<td>3 (4.28%)</td>
<td>3 (4.28%)</td>
<td>3 (4.28%)</td>
<td>9 (4.28%)</td>
</tr>
<tr>
<td>Total</td>
<td>36 (9.47%)</td>
<td>250 (65.79%)</td>
<td>94 (24.74%)</td>
<td>380 (100%)</td>
</tr>
</tbody>
</table>
Symptom Checklist (Age 4-11 YO)

- Fearful / do not want to be alone/axious: 29 (45.31%)
- Regressive behavior: 4 (6.25%)
- Sleep walk: 7 (10.94%)
- Frightened/Scream: 14 (21.88%)
- Aggressive: 3 (4.69%)
- Depression: 7 (10.94%)
Number of Violent Victims,
Classified by Age Group ( > 15 ) (1,477 cases)
Mental Health Problems among Victims > 15 YO (PICES-18)
<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014 Jan-Jun</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of affected children/adults recorded on VMS database</td>
<td>0/660</td>
<td>0/1,404</td>
<td>104/1,454</td>
<td>17/326</td>
<td>158/2,898</td>
<td>380/1,477</td>
<td>76/717</td>
</tr>
<tr>
<td>With risk For Mental Health problem</td>
<td>0/183</td>
<td>0/314</td>
<td>10/237</td>
<td>5/118</td>
<td>10/102</td>
<td>79/94</td>
<td>20/32</td>
</tr>
<tr>
<td>Diagnosed as PTSD</td>
<td>0/0</td>
<td>0/0</td>
<td>0/0</td>
<td>1/7</td>
<td>0/10</td>
<td>0/6</td>
<td>0/2</td>
</tr>
</tbody>
</table>
Disaster Ecology Model

Figure 4.3 Detailed disaster ecology model
### Some maladaptive individual and community responses

<table>
<thead>
<tr>
<th>Individual level response</th>
<th>Community level response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Horror and distress</td>
<td>1. Mass panic</td>
</tr>
<tr>
<td>2. Social isolation</td>
<td>2. Divisiveness and loss of cohesion</td>
</tr>
<tr>
<td>3. Anger, suspicion and mistrust</td>
<td>3. Conspiracy theory</td>
</tr>
<tr>
<td>4. Demoralization</td>
<td>4. Loss of confidence in leaders. Debates over blame and responsibility</td>
</tr>
<tr>
<td>5. Catastrophic thinking (overestimated risk)</td>
<td>5. Epidemic health anxiety</td>
</tr>
<tr>
<td>6. Medically unexplained symptoms</td>
<td>6. Contested exposures and illness</td>
</tr>
<tr>
<td>7. Unemployment loss of function</td>
<td>7. Disability and compensation disputes</td>
</tr>
</tbody>
</table>
IV. Challenges
Challenges

- Safety
- Specific group of victim
  (Children, widow, disability etc)
- Mental health awareness/Literacy
- Community resilience
NO SAFETY ZONE
22 May 2014: Bomb explodes in hospital car park in Pattani
Specific group
Challenges Children

- Violence
- Revenge
- hate
• Widows 2,705
• Orphans 5,686
(Source: Ministry of social development and human Security on 31 March 2014)
Disability

> 500 disability from Violence
Military’s family
V. Lessons Learned

• Massive disasters need preparedness in organization for responding

• Involvement of various agencies and actors over a timeline

• Coordination, communication and knowledge on resources and the disaster recovery system are important

• Authority: Who is in charge? Central-local?

Psychiatric Hospital / General Hospital / Mental Health Center
Center for Health Crisis Management,
Indonesia
SAWASDEE KA
Psychological relief efforts for the victims of 2004 Indian Ocean Tsunami
Background

• 2004 South Indian Ocean Earthquake caused one of the deadliest Tsunami on December 27, 2005.

• Affected 6 southern provinces in Thailand: Phuket, Phung Nga, Krabi, Ranong, and Satun.

• Causing 5,392 deaths, 3100 missing, and 8,457 injured.
Organization of Relief Efforts

• Central Coordinating Center for Psychological Relief and Rehabilitation
  — At the Department of Mental Health, Nonthaburi province

• Frontline Coordinating Center for Psychological Relief and Rehabilitation
  — At Suan Saranrom psychiatric hospital, Surat Thani province

• Mental Health Mobile Teams
  — At the affected areas

• Mental Health Recovery Center
  — At the affected areas
Implementation

• Phase 1: Immediately after disaster (< 24 hours)

• Phase 2: Crisis and Emergency (24 hours – 2 weeks)

• Phase 3: Post-disaster (2 weeks – 3 months)

• Phase 4: Rehabilitation (> 3 months)
Phase 1: Immediately after disaster
(\(< 24\) hours)

- Assessed the situation
- Alerted the emergency system
- Directed command from the Department
- Pooled mental health resources (central and local resources)
- Preparation of mental health mobile teams
Phase 2: Crisis and Emergency
(24 hours - 2 weeks)

• Established the coordinating center for health relief efforts by the Ministry of Public Health
• Established the frontline center for mental health relief and rehabilitation by the Department of Mental Health
• Mental health mobile teams
  — provided psychological first aid for the victims
  — Screened for mental health problems using GHQ-12
Phase 3: Post-disaster
(2 weeks – 3 months)

• Continued screening and providing psychological support
• Coordinated mental health support with other relief efforts
• Developed information system
• Conducted a epidemiological survey
• Mental health education via media
Phase 4: Rehabilitation
(> 3 months)

• Established a mental health recovery center in Phung Nga province

• Surveillance for mental health problems among the victims
Prevalence of Mental Health Problems among 2004 Tsunami Victims in Phung Nga, Krabi, and Phuket

Source: From Department of Mental Health conducted by Using SF-36, HSCL-25, HTQ
A cohort of the victims in the 2006 floods/mudslides in Uttaradit province, northern Thailand
Background

• Flash floods and mudslides hit Uttaradit province, northern Thailand, after a heavy monsoon rains in May, 2006

• Northern Thailand's worst floods in 60 years killed at least 30 people and left nearly 100 missing

• Department of Mental Health together with Uttaradit Office of Public Health launched a one-year continuing psychological support for a group of victims
Background (cont.)

• One village each in 3 affected districts, Lub Lae, Tah Pla, and Mueang districts, were selected.

• One village in a non-affected district, Thong San Khun was selected as the control.

• All of the villagers (892 persons) in selected villages were screened for mental disorders at 3 months after the incident.

• The victims with mental health problems were followed up 3 times every 3 months.
Prevalence of Mental Health Problems among the Cohort of Mudslide Victims (Post 3 months)

Tah Pla: 82.52%
Lub Lae: 70.69%
Mueang: 68.87%
Control: 23.66%
Prevalence of Mental Disorders among the Cohort of Mudslide Victims (Post 3 months)

<table>
<thead>
<tr>
<th></th>
<th>PTSD</th>
<th>MDD</th>
<th>Suicide</th>
<th>Alcohol use disorder</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tah Pla</td>
<td>11.89</td>
<td>4.46</td>
<td>9.29</td>
<td>0.46</td>
<td>7.8</td>
</tr>
<tr>
<td>Lub Lae</td>
<td>10.69</td>
<td>3.25</td>
<td>4.65</td>
<td>0.98</td>
<td>0.98</td>
</tr>
<tr>
<td>Mueang</td>
<td>15.34</td>
<td>2.45</td>
<td>1.22</td>
<td>0</td>
<td>11.27</td>
</tr>
<tr>
<td>Control</td>
<td>0</td>
<td>2.98</td>
<td>1.91</td>
<td>0</td>
<td>7.46</td>
</tr>
</tbody>
</table>
Prevalence of PTSD among the Cohort of Mudslide Victims

(Post 3 months vs. Post 12 months)
Psychological care for the victims of the violent events in the 4 southernmost provinces
Background

• Southernmost area (Pattani, Yala, Narathiwat, and some parts of Songkla) have faced continuous violence problems since 2001.

• Mental health services system is not well established due to a scarcity of mental health professionals in the affected area.

• Shortage of psychiatrists in the south border province (Pattani, Yala, Narathiwat).
Four Southernmost Provinces
Trend of the Southernmost Violent Events

(January 2004 - February 2007)

Source: Violent Related Injury Surveillance System (VIS), Center for Academic Coordination of the Southernmost Provinces
Case-Fatality Rate of the Violent Victims in January 2007, Classified by Province

Source: Violent Related Injury Surveillance System (VIS), Center for Academic Coordination of the Southernmost Provinces
Case-Fatality Rate of the Violent Victims in January 2007, Classified by Occupation
Violent-Related Mental Health Surveillance (VMS) Report

October 2007-June 2008

(9 months)
Number of Violent Victims, Classified by Province (702 Cases)

- Pattani (265 Cases, 38%)
- Yala (105 Cases, 15%)
- Songkla (3 Cases, <1%)
- Nathiwat (329 Cases, 47%)
Number of Violent Victims, Classified by Age Group

- **Narathiwat**: 115 (34.95%), 89 (27.05%), 70 (21.28%), 34 (10.33%), 18 (5.47%)
- **Pattani**: 99 (37.36%), 55 (20.75%), 43 (16.23%), 20 (7.55%), 18 (6.79%)
- **Yala**: 25 (23.81%), 29 (27.62%), 17 (16.19%), 15 (13.9%), 6 (5.71%)
- **Songkla**: 1 (3.33%), 0 (0.00%), 1 (0.00%), 0 (0.00%), 0 (0.00%)