Case study of the Emergency and Disaster Preparedness, Response and Rehabilitation Capacities of Government Schools in Philippine, and development of Asian statement.

Ernesto R. Gregorio, Jr
College of Public Health, University of the Philippines, Manila

Jun Kobayashi
School of Health Sciences, University of the Ryukyus, Okinawa

Japan–Philippine Urgent Collaborative Projects regarding “Typhoon Yolanda” within the J–RAPID Program
Case study of the Emergency and Disaster Preparedness, Response and Rehabilitation Capacities of Government Schools in Philippine, and development of Asian statement.

Ernesto R. Gregorio, Jr
College of Public Health, University of the Philippines, Manila

Jun Kobayashi
School of Health Sciences, University of the Ryukyus, Okinawa

Japan–Philippine Urgent Collaborative Projects regarding “Typhoon Yolanda” within the J–RAPID Program
Project Team Members
Dr. Jun Kobayashi – University of the Ryukyus
Prof. Ernesto R. Gregorio Jr. – University of the Philippines Manila
Dr. Kenzo Takahashi – Teikyo University
Mr. Mitsuya Kodama – Yokohama City University
Ms. Miki Hirata – University of the Ryukyus
Eng. Romeo R. Quizon – University of the Philippines Manila

Japan–Philippine Urgent Collaborative Projects regarding “Typhoon Yolanda” within the J–RAPID Program
17 proposed goals of SDGs

Goal 1  End poverty in all its forms everywhere
Goal 2  End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3  Ensure healthy lives and promote well-being for all at all ages
Goal 4  Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5  Achieve gender equality and empower all women and girls
Goal 6  Ensure availability and sustainable management of water and sanitation for all
Goal 7  Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8  Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9  Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
17 proposed goals of SDGs

Goal 10  Reduce inequality within and among countries
Goal 11  Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12  Ensure sustainable consumption and production patterns
Goal 13  Take urgent action to combat climate change and its impacts
Goal 14  Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15  Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16  Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17  Strengthen the means of implementation and revitalize the global partnership for sustainable development
Environment 環境 and Health

Industrial Revolution 産業革命
Agricultural Revolution 農業革命
Health Transition 健康転換
LIFE SKILL EDUCATION IN THE VIEW OF GLOBAL HEALTH

• Vision of Healthy Family 健康な家庭のビジョン
  • Education for women 女性の教育
• Vision of Health in each country それぞれの国の健康のビジョン
  • Ecohealth Education エコヘルス教育
Which would you prefer, small or big family? The number of children
Eco health education

Human is one of element for ecosystem  人間は環境システムの一つのエレメント
Living activities of human influence to ecosystem  人間の生業はエコシステムに影響する
Environmental change influence to health  環境の変化は健康に影響する。
Events of Natural disaster

The possibility of the disaster

Vulnerability

(資料) 国連大学, World Risk Report 2011
Research question?

• Policy management
  • School Health & Disaster Reduction

formulation

evaluation Implementation formulation

evaluation Implementation
Objective

• To identify areas in the emergency and disaster preparedness, response and rehabilitation capacities of government schools in the Provinces of Leyte and Samar which need strengthening.

RA 10121: Philippine Disaster Risk Reduction and Management Act of 2010

An Act Strengthening the Philippine Disaster Risk Reduction and Management System, Providing for the National Disaster Risk Reduction and Management Framework and Institutionalizing the National Disaster Risk Reduction and Management Plan, Appropriating Funds Therefore and for Other Purposes.
Case study research

• Documents review
  • national policies, DepEd policies, DepEd memorandums,
  • inter-agency joint memorandums, DepEd manuals,
  • DepEd press releases, local literatures, and foreign literatures.

• Key informants interview
  • Department of Education (DepEd) officials and teachers
  • Disaster Risk Reduction Management (DRRM) officials
    • Central government staff
    • Regional government staff
      • Tacloban area: Most damaged
      • Samar area: Least damaged
Document reviews

DRR related:

1) National policies – Republic Acts
2) DepEd policies – National & Regional
3) DepEd memorandums – National & Regional
4) Inter-agency Joint memorandums
5) DepEd Manuals
6) DepEd press releases
7) Local & foreign literatures
Selection of study areas
Key informant interviews & focus group discussions

<table>
<thead>
<tr>
<th>Subject Schools and Personnel</th>
<th>National DepEd DRRM Officials</th>
<th>Regional DepEd DRRM officials</th>
<th>LGU DRRMC official</th>
<th>Principal</th>
<th>Science and MAPEH Teachers</th>
<th>PTA rep</th>
<th>Barangay captain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leyte</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leyte</td>
<td>Tanauan I Central Elementary School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tanauan National High School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Abuyog) Gabaldon Central Elementary School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Abuyog National High School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Samar (Control group)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samar</td>
<td>Lupok Central Elementary School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guiuan National High School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>*6</td>
<td>2</td>
<td>*With district supervisor</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>*1</td>
<td>1</td>
<td></td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>*1</td>
<td>2</td>
<td>*W/ school nurse</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>Total = 53 persons</td>
<td></td>
<td></td>
<td>53</td>
</tr>
</tbody>
</table>
Plan for analysis

• Disaster management cycle

• Factor influencing implementation of policy and practice on school health
  
  (Whitman V 2005)

Factor influencing implementation of policy and practice on school health

- Vision & Concept
- Guideline (International & National)
- Dedicated Term & resources
- Stakeholders ownership & participation
- Team Training & Ongoing coaching/ Learning community
- Cross-sector collaboration
- Champions & Leaders at All level
- Data-Driven Planning & Decision-Making
- Administrative & management support

- Adapting to local concerns
- Attention to External Forces
- Critical mass & supportive norm
- Stage of readiness
# Results

## Policy implementation: Facilitators

<table>
<thead>
<tr>
<th>Factors</th>
<th>Interview notes</th>
<th>Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leadership</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• School staff</td>
<td>1. FGD - Abuyog teachers p.</td>
<td>1. DedEd Order No. 55, s.2007</td>
</tr>
<tr>
<td>• LGU DRRM coordinator</td>
<td>2. FGD - Gabaldon teachers p</td>
<td>2. NDRRMC, Dep of the interior and local government, Dep of Budget and Management, Civil Service Commission Joint Memo Circular No 2014-1</td>
</tr>
<tr>
<td></td>
<td>3. FGD - Guiuan teachers p.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. FGD - Guiuan PTA p.4</td>
<td></td>
</tr>
<tr>
<td><strong>Residents’ level of awareness &amp; experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. FGD - Guiuan teachers p.4</td>
<td></td>
</tr>
<tr>
<td><strong>Residents’ will to help each other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. FGD – Guiuan teachers p.11 (Bayanihan spirit)</td>
<td></td>
</tr>
</tbody>
</table>
## Results

### Policy implementation: Bottleneck

<table>
<thead>
<tr>
<th>Factor</th>
<th>Interview notes</th>
<th>Documents</th>
</tr>
</thead>
</table>
| Lack of resources (financial, human, infrastructure, supplies & equipment) | 1. FGD - Gabaldon teachers p13  
2. FGD - Abuyog teachers p2  
3. FGD – National DepEd DRRMO p13-14  
4. FGD - Lupok teachers p.10  
5. KII-Tanauan principal p.15, etc | 1. DO 98, s2009  
2. DO 13, s2012  
3. DO 35, s2014  
4. Memo 104, s2011  
5. Memo 288, s2008  
6. Memo 297, s2008  
7. Memo 291, s2007  
8. Memo 291, s2010  
9. Joint memo 2013-1*  
10. Regional memo 169, s2013 |
| Location of schools in high-risk areas | 1. FGD - Abuyog teachers p.5  
2. FGD – Tanauan teachers p.6 | The National Building Code of the Philippines, Chapter 1, Section 105* |
## Policy implementation: Bottleneck

<table>
<thead>
<tr>
<th>Factor</th>
<th>Interview notes</th>
<th>Documents</th>
</tr>
</thead>
</table>
| Lack of communication within DepEd | 1. FGD - Guiuan teachers p.14  
  2. FGD – Gabaldon teachers p2                                                | 1. DedEd Order No. 55, s.2007                  |
| Different disaster types      | 1. FGD - Guiuan teachers p.4-6  
  2. FGD - Guiuan barangay rep p.3  
  3. FGD – Tanauan teachers p.6                                              | 1. DedEd Order No. 55, s.2007  
  2. DedEd Order No. 48, s.2012  
  3. DedEd Order No. 72, s.2012  
  4. DedEd Order No. 84, s.2012                                               |
| Religious beliefs             | 1. FGD – Tanauan teachers p.18  
  2. FGD – Tanauan PTA p.7  
  3. FGD – Gabaldon PTA & School nurse p.7  
  4. KII – Gabaldon barangay rep p.9                                         |                                                |
| Lack of donor coordination    | 1. KII – Tanauan principal p.5  
  2. FGD - National DepEd DRRMO p.11                                          |                                                |
Main findings:

1. **Lack of donor coordination**
   During the response phase, there was no clear coordination at the school level in terms of management of donation.

2. **Strong leadership of LDDRM & the School**
   Local level leadership (Mayor, Department Heads and School Heads)

3. **Different hazard types**
   Nationally mandated disaster drills focus on fire and earthquake; however, the communities suffer from other disasters such as typhoon, land slide, high tide, etc

4. **Proportion of budgets expenses**
   The input to school inclines towards to response of disaster management, not to preparedness.
Recommendations

1. There is a need to identify & capacitate the person in the school who will manage receiving and distribution of donations
   • This person in the school should coordinate with his/her counterpart in the division and regional offices of Dep Ed.

2. Strong leadership at the local government units and the school should be maintained. This should be documented and disseminated as a good practice.
Recommendation 3

• *Adapting to local concerns*

• *Data-Driven Planning & Decision-Making*

• Nationally mandated disaster drills focus on fire and earthquake; however,

• Other hazards such as typhoon, land slide, high tide, storm surge, etc. are present in the communities

How?
Natural
disaster
occurrence
reported
1980 - 2010

Source: EM-DAT
The International Disaster Database
Health Education in School

• Core curriculum
  – Textbook, Teaching manual

• Local curriculum
  – Textbook, Teaching manual
  – sub textbook

• Extra curricular
  – Textbook, Teaching manual
  – sub textbook
  – Poster and other tools supplied from other sector
HRD
Human Resource Development

Pre Service Training
In Service training

Curriculum (School Health)

School Health Policy
HRD
Human Resource Development

In Service training

Pre Service Training
Curriculum
School Health Policy
Recommendation 4

• *Data-Driven Planning & Decision-Making*

• Proportion of budgets expenses

• The input to school inclines towards to response of disaster management, not to preparedness.
Disaster management in low- and middle-income countries: scoping review of the evidence base

1,545 out of 2,652 articles reviewed

Source: A. Lee et al. 2014 Mar; 10.1136/emermed-2013-203298
## Thematic category of publication by country setting

<table>
<thead>
<tr>
<th>Disaster Management Cycle</th>
<th>Categories</th>
<th>Low-Middle Income</th>
<th>High Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitigation</td>
<td>Mitigation</td>
<td>6</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Hazard Analysis</td>
<td>15</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.4</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.4</td>
<td>7.9</td>
</tr>
<tr>
<td>Preparedness</td>
<td>Capability Assessment</td>
<td>14</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>Emergency Planning</td>
<td>18</td>
<td>527</td>
</tr>
<tr>
<td></td>
<td>Capability Maintenance</td>
<td>9</td>
<td>157</td>
</tr>
<tr>
<td></td>
<td>Development Plans</td>
<td>11</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.9</td>
<td>13.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.1</td>
<td>53.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.1</td>
<td>15.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.2</td>
<td>5.4</td>
</tr>
<tr>
<td>Response</td>
<td>Emergency Response</td>
<td>93</td>
<td>323</td>
</tr>
<tr>
<td></td>
<td></td>
<td>52.2</td>
<td>32.8</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>Rehabilitation</td>
<td>35</td>
<td>99</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19.7</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Source: A. Lee et al. 2014 Mar; 10.1136/emergmed-2013-203298
Organizing the regional training course and workshop for policy management of school health
* Cross sector collaboration  セクターを超えた協力
* Community linkage コミュニティーとの協働
* Ecohealth education エコヘルス教育
* Child Protection

* Why in school health? なぜ学校保健なのか？