

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

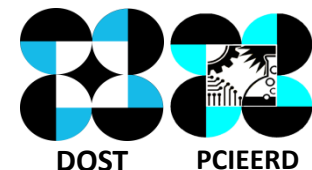
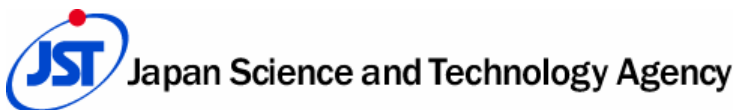
Ernesto R. Gregorio, Jr

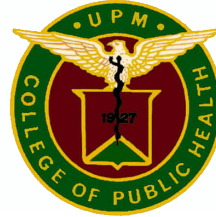
College of Public Health, University of the Philippines, Manila

Jun Kobayashi

School of Health Sciences, University of the Ryukyus, Okinawa

Japan–Philippine Urgent Collaborative Projects  
regarding “Typhoon Yolanda” within the J–RAPID Program





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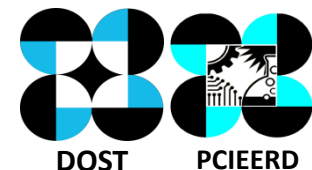
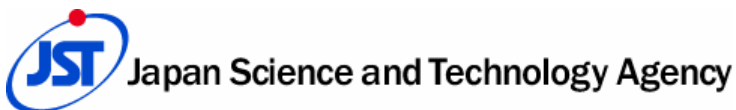
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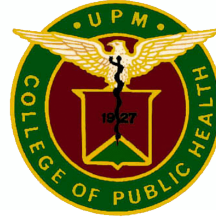
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## Project Team Members

Dr. Jun Kobayashi – University of the Ryukyus

Prof. Ernesto R. Gregorio Jr. – University of the Philippines Manila

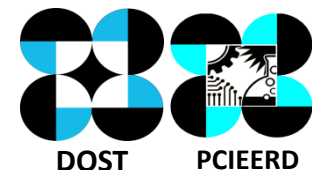
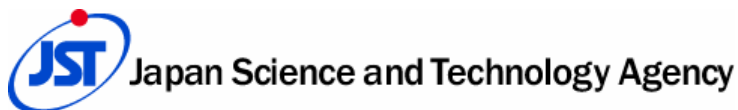
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Mr. Mitsuya Kodama – Yokohama City University

Ms. Miki Hirata – University of the Ryukyus

Eng. Romeo R. Quizon – University of the Philippines Manila

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# 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

產業革命

Agricultural

Revolution

農業革命

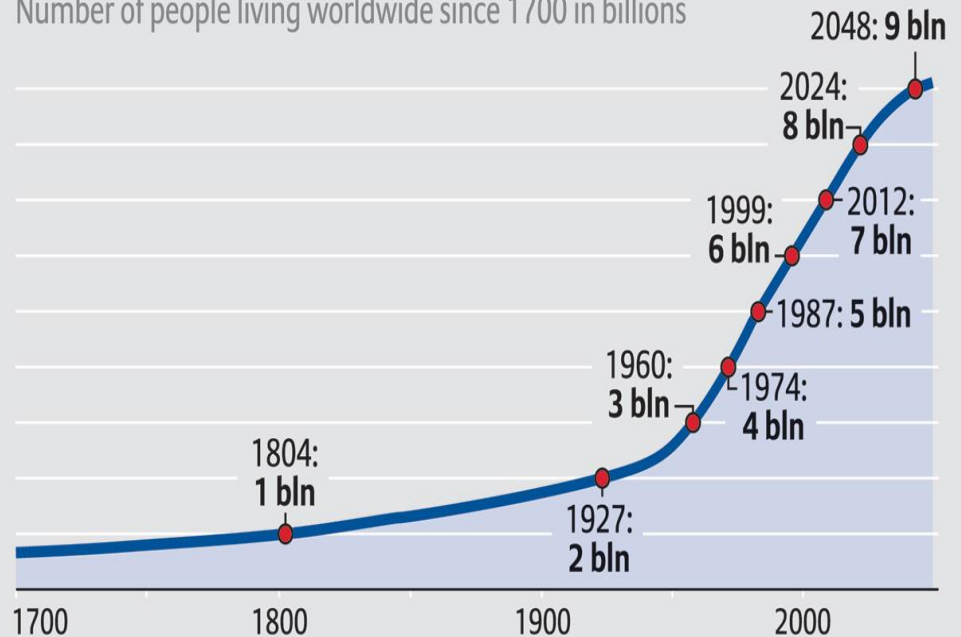
Health Transition

健康轉換

## POPULATION OF THE EARTH

Allianz 

Number of people living worldwide since 1700 in billions



Source: United Nations World Population Prospects, Deutsche Stiftung Weltbevölkerung

For further information please visit: [www.knowledge.allianz.com](http://www.knowledge.allianz.com)



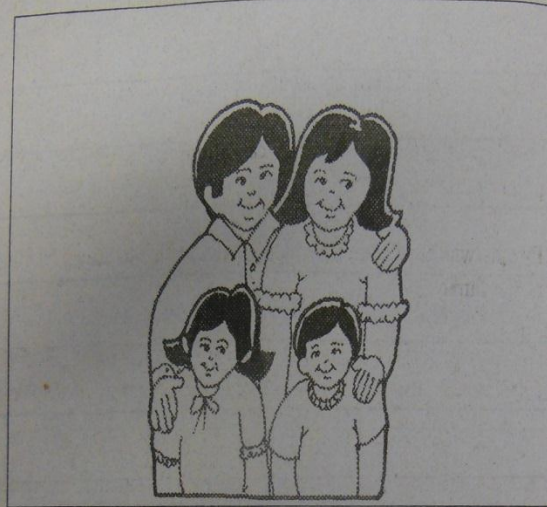
# LIFE SKILL EDUCATION IN THE VIEW OF GLOBAL HEALTH

## グローバルヘルスからみたライフスキル教育

- 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

## LESSON 2

### FAMILY SIZE



# Vision of Healthy Family

MAPEH IV Skill for life  
Mojica et al

Which would you prefer? A small family? The number of children

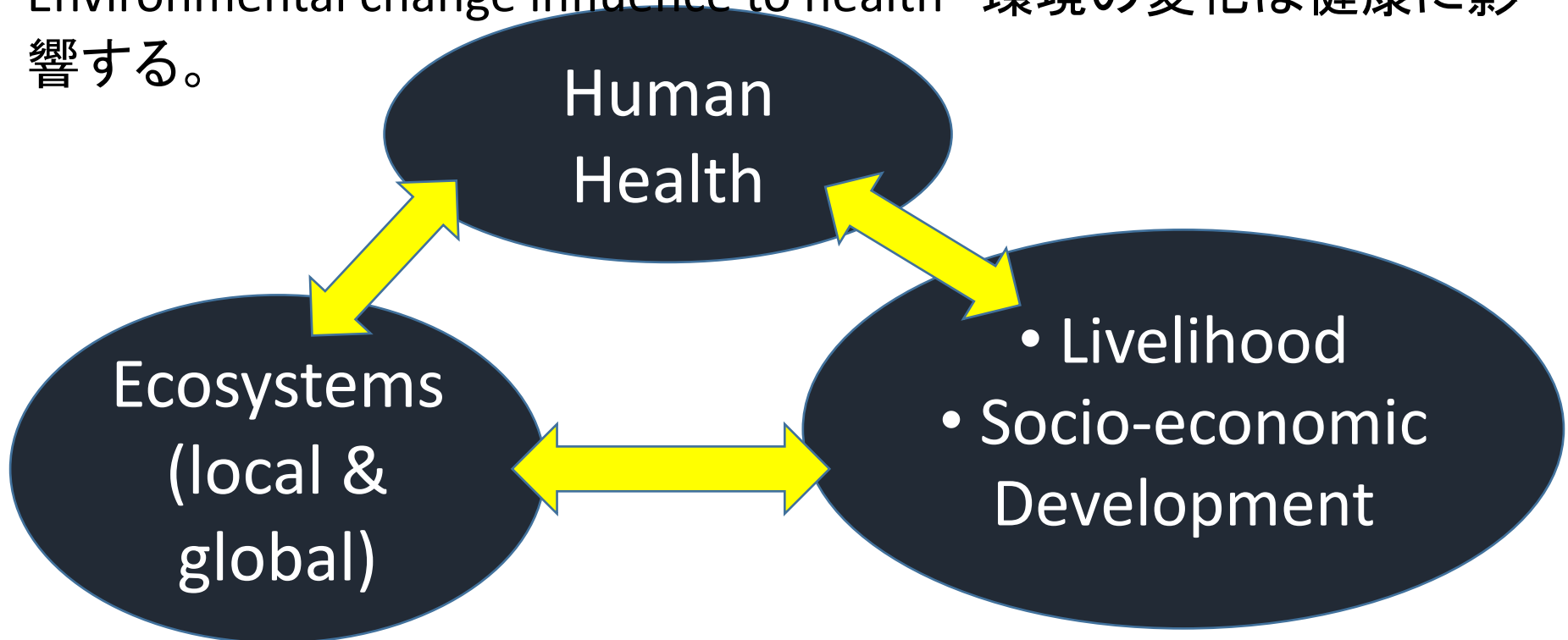


## ➤Eco health education

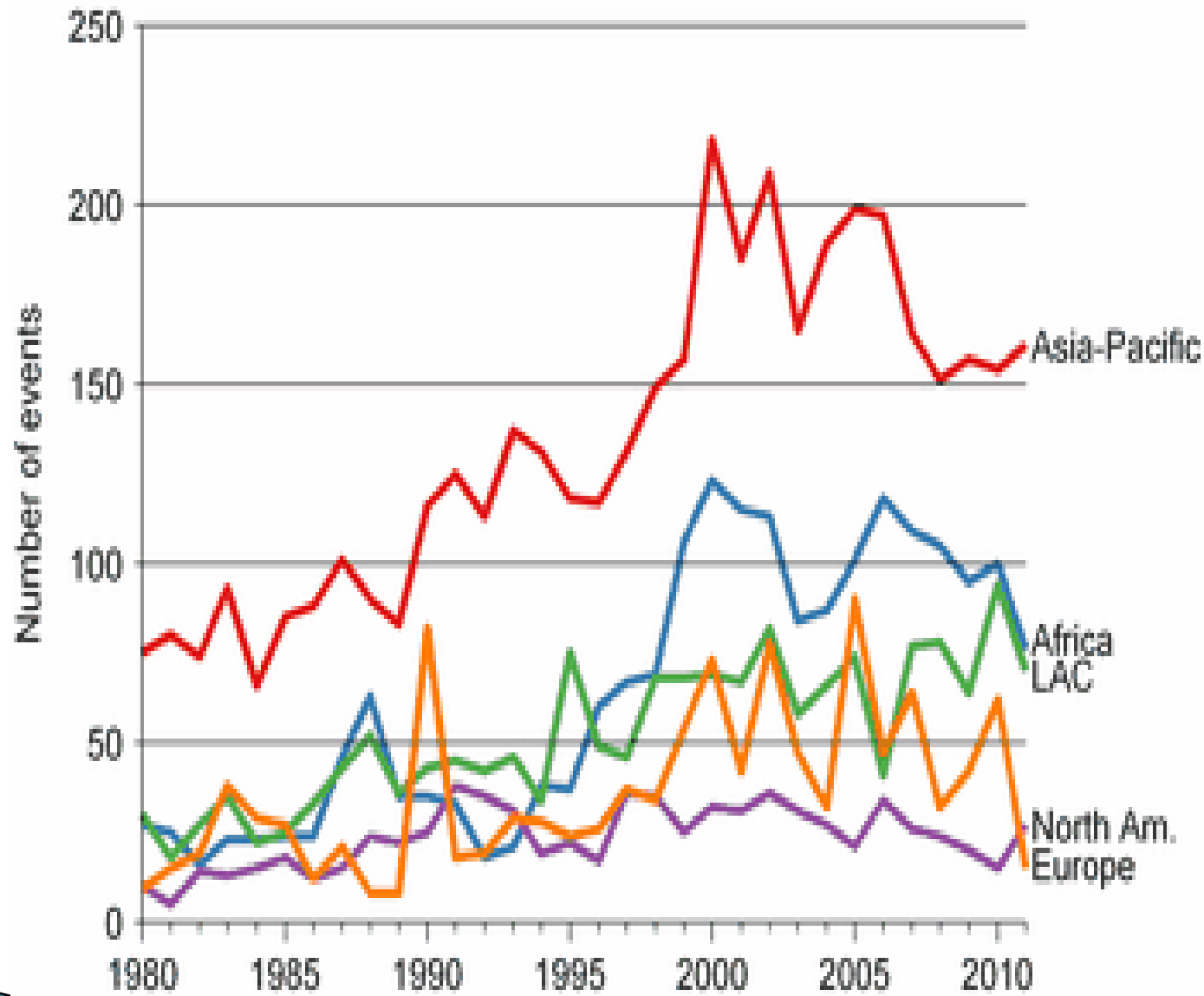
Human is one of element for ecosystem 人間は環境システムの一つのエLEMENT

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。

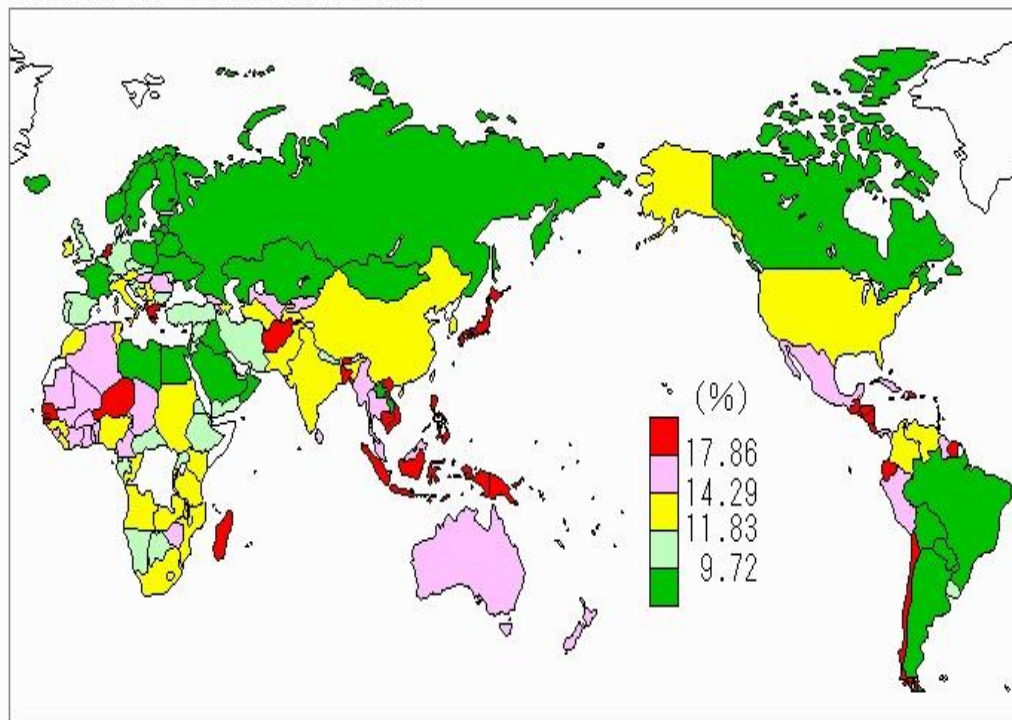


# Events of Natural disaster



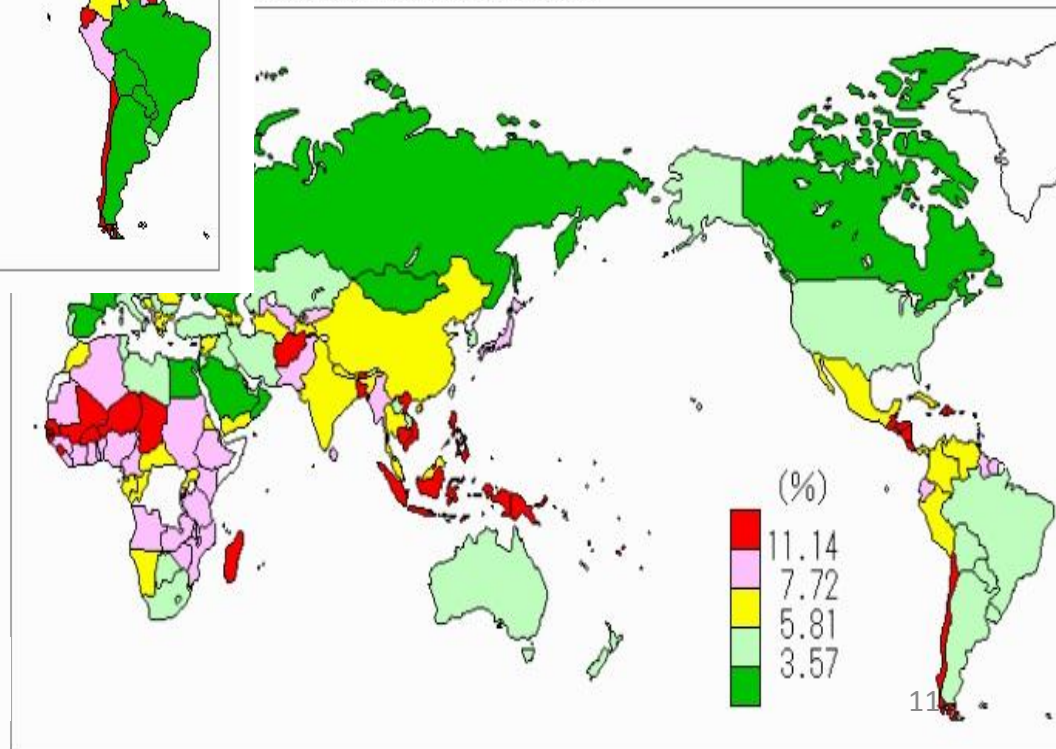
# The possibility of the disaster

自然災害に遭いやすい国(被災可能性)



## Vulnerability

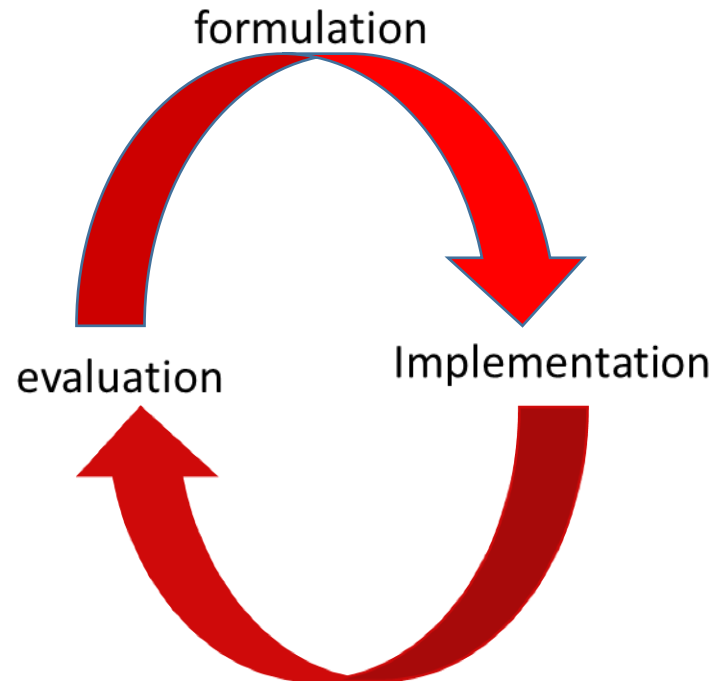
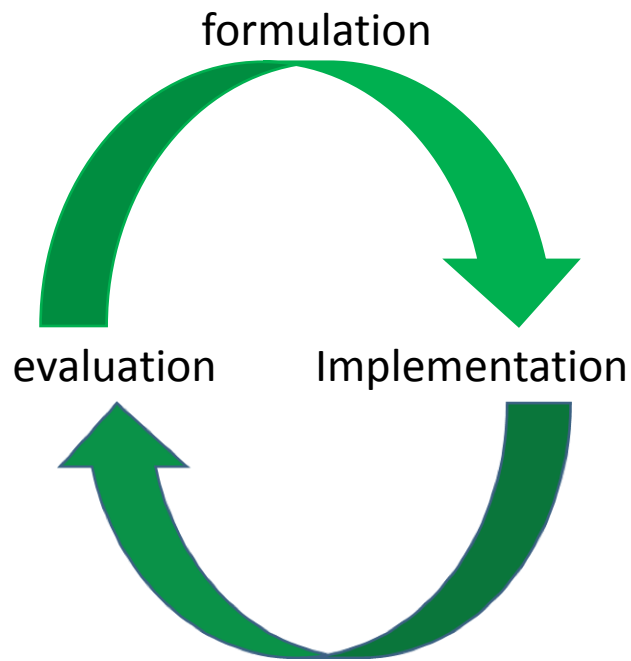
受けやすい国(自然災害リスク)



(資料) 国連大学, World Risk Report 2011

# Research question?

- Policy management
- **School Health** & **Disaster Reduction**





# 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

Approved: MAY 27 2010

*Gloria M. Arroyo*  
GLORIA MACAPAGAL ARROYO  
President of the Philippines



# 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

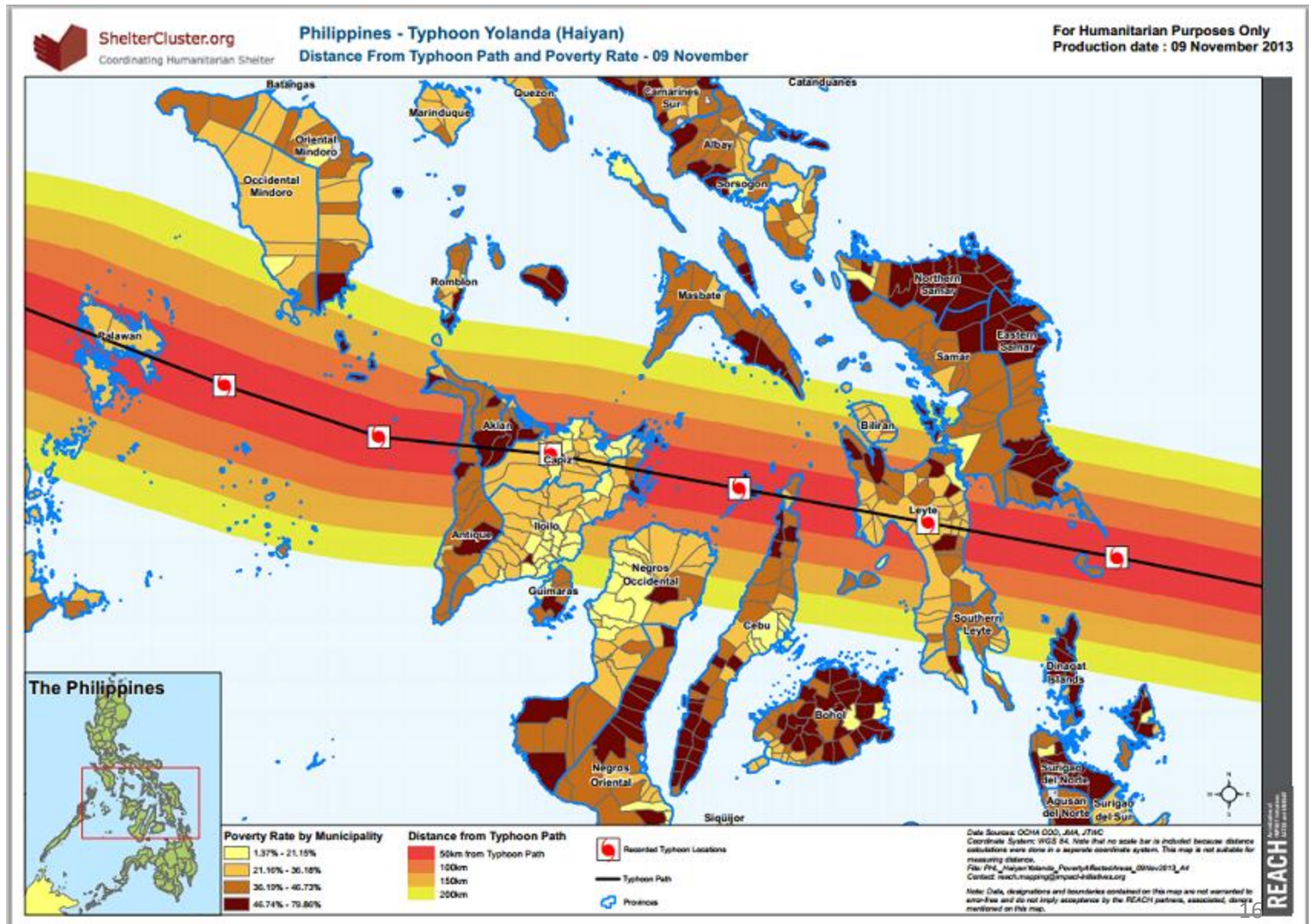
- Department of Education (DepEd) officials and teachers
- Disaster Risk Reduction Management (DRRM) officials
  - Central government staff
  - Regional government staff
    - Tacloban area: Most damaged
    - Samar area: Least damaged

# 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

Subject Schools and Personnel		National DepEd DRRM Officials	Regional DepEd DRRM officials	LGU DRRMC official	Principal	Science and MAPEH Teachers	PTA rep	Barangay captain
Leyte	Tanauan I Central Elementary School	2	*6	N/A	2 *With district supervisor	4	1	1
	Tanauan National High School				1	4	1	1
	(Abuyog) Gabaldon Central Elementary School				1	4	2 *W/ sch I nurse	1
	Abuyog National High School			*1	1	3	1	1
Samar (Control group)	Lupok Central Elementary School		* 1	N/A	1	3	1	2 *W/ Secretary
	Guiuan National High School				1	Total = 53 persons		







# Plan for analysis

- Disaster management cycle



- Factor influencing implementation of policy and practice on school health

*(Whitman V 2005)*

<http://mjcetenvsci.blogspot.jp/2013/11/diasater-management-cycle.html>



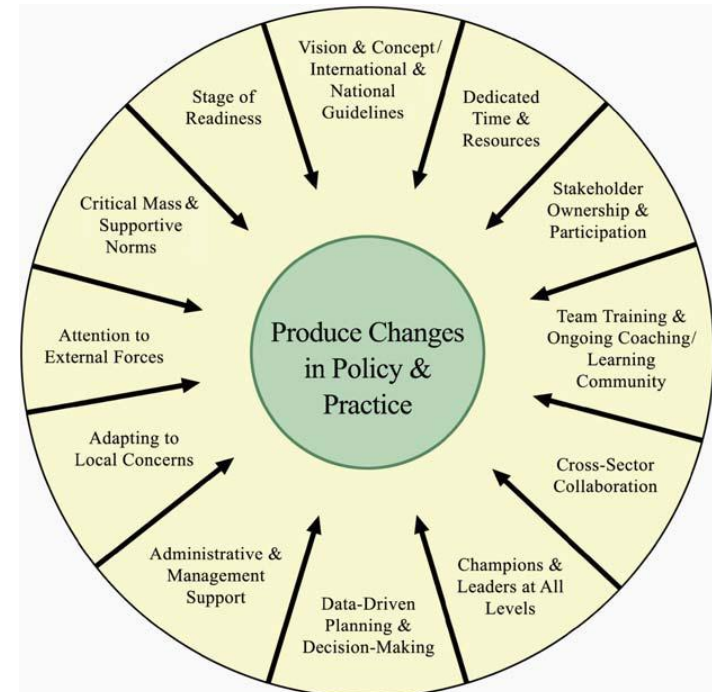
# Factor influencing implementation of policy and practice on school health

- 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**

Factors	Interview notes	Documents
Leadership <ul style="list-style-type: none"> <li>• School staff</li> <li>• LGU DRRM coordinator</li> </ul>	1. FGD - Abuyog teachers p. 2. FGD - Gabaldon teachers p 3. FGD - Guiuan teachers p.10 4. FGD - Guiuan PTA p.4	1. DedEd Order No. 55, s.2007 2. 2. NDRRMC, Dep of the interior and local government, Dep of Budget and Management, Civil Service Commission Joint Memo Circular No 2014-1
Residents' level of awareness & experience	1. FGD - Abuyog teachers p. 2. FGD - Guiuan teachers p.4	
Residents' will to help each other	1. FGD - Abuyog teachers p. 2. FGD – Guiuan teachers p.11 (Bayanihan spirit)	

# Results

## Policy implementation: Bottleneck

Factor	Interview notes	Documents
Lack of resources (financial, human, infrastructure, supplies & equipment)	<ol style="list-style-type: none"> <li>1. FGD - Gabaldon teachers p13</li> <li>2. FGD- Abuyog teachers p2</li> <li>3. FGD – National DepEd DRRMO p13-14</li> <li>4. FGD - Lupok teachers p.10</li> <li>5. KII-Tanauan principal p.15, etc</li> </ol>	<ol style="list-style-type: none"> <li>1. DO 98, s2009</li> <li>2. DO 13, s2012</li> <li>3. DO 35, s2014</li> <li>4. Memo 104, s2011</li> <li>5. Memo 288, s2008</li> <li>6. Memo 297, s2008</li> <li>7. Memo 291, s2007</li> <li>8. Memo 291, s2010</li> <li>9. Joint memo 2013-1*</li> <li>10. Regional memo 169, s2013</li> </ol>
Location of schools in high-risk areas	<ol style="list-style-type: none"> <li>1. FGD - Abuyog teachers p.5</li> <li>2. FGD – Tanauan teachers p.6</li> </ol>	The National Building Code of the Philippines, Chapter 1, Section 105*

# Results

## Policy implementation: Bottleneck

Factor	Interview notes	Documents
Lack of communication within DepEd	<ol style="list-style-type: none"> <li>1. FGD - Guiuan teachers p.14</li> <li>2. FGD – Gabaldon teachers p2</li> </ol>	<ol style="list-style-type: none"> <li>1. DedEd Order No. 55, s.2007</li> </ol>
Different disaster types	<ol style="list-style-type: none"> <li>1. FGD - Guiuan teachers p.4-6</li> <li>2. FGD - Guiuan barangay rep p.3</li> <li>3. FGD – Tanauan teachers p.6</li> </ol>	<ol style="list-style-type: none"> <li>1. DedEd Order No. 55, s.2007</li> <li>2. DedEd Order No. 48, s.2012</li> <li>3. DedEd Order No. 72, s.2012</li> <li>4. DedEd Order No. 84, s.2012</li> </ol>
Religious beliefs	<ol style="list-style-type: none"> <li>1. FGD – Tanauan teachers p.18</li> <li>2. FGD – Tanauan PTA p.7</li> <li>3. FGD – Gabaldon PTA &amp; School nurse p.7</li> <li>4. KII – Gabaldon barangay rep p.9</li> </ol>	
Lack of donor coordination	<ol style="list-style-type: none"> <li>1. KII – Tanauan principal p.5</li> <li>2. FGD - National DepEd DRRMO p.11</li> </ol>	



# 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 LDDRMC & 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

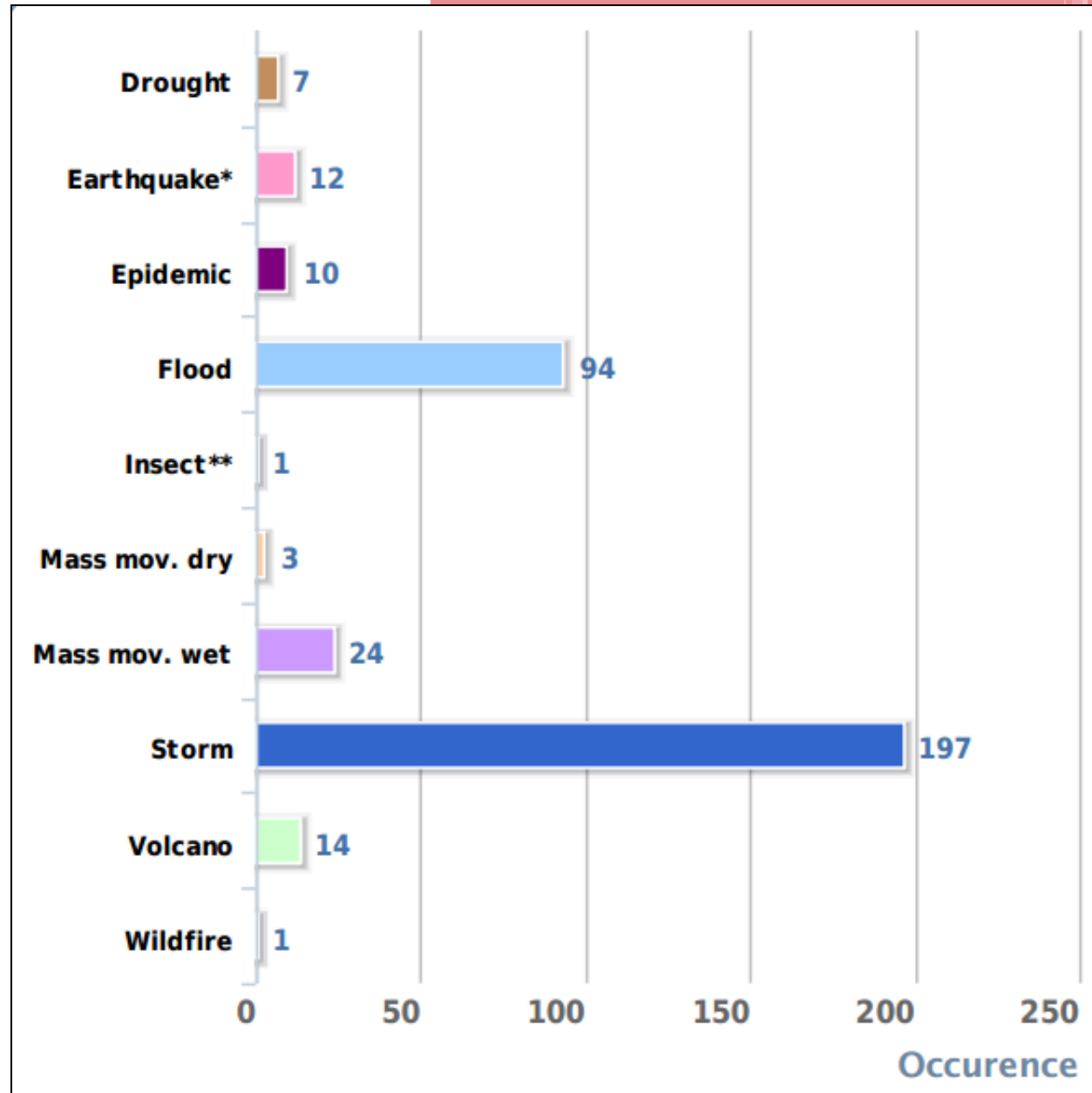
- *Adapting to local concerns*
- *Data-Driven Planning & Decision-Making*
- Nationally mandated disaster drills focus on fire and earthquake; however,
- Other hazards such as typhoon, land slide, high tide, storm surge, etc. are present in the communities



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

Pre  
Service  
Training

In Service  
training

**Curriculum**

School Health Policy

HRD

Human Resource Development

Pre  
Service  
Training

In Service  
training

Curriculum

School Health Policy

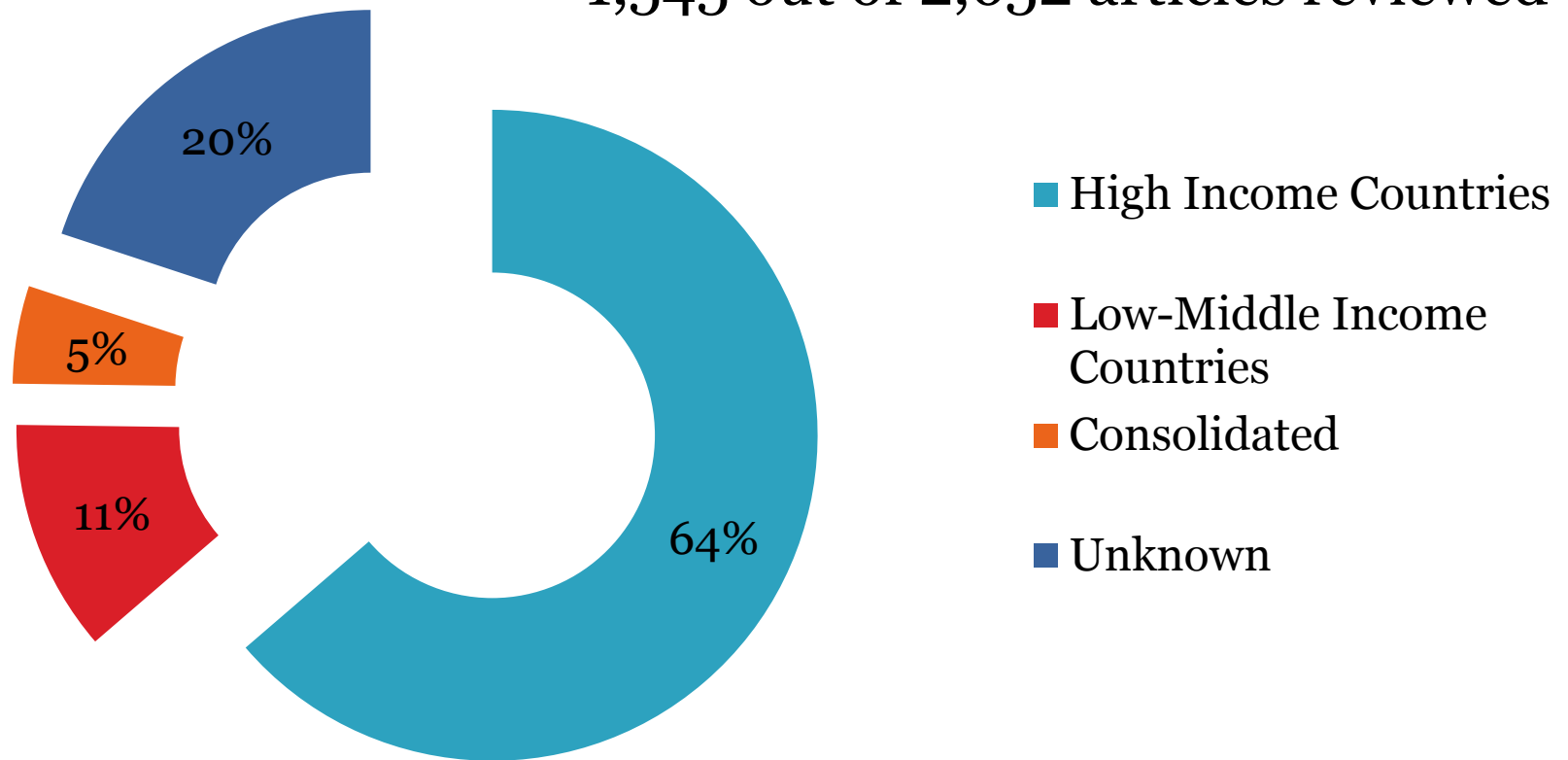


# Recommendation 4

- ***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/emered-2013-203298

# Thematic category of publication by country setting

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

Source: A. Lee et al. 2014 Mar; 10.1136/emmermed-2013-203298



United Nations  
Educational, Scientific and  
Cultural Organization

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？