

The New Initiatives of the University of the Philippines Diliman for Disaster Risk Management in Campus

B. M. Pacheco

2-4 February 2016

Workshop on Building Disaster Resistant Universities
Tohoku University

Agenda for Today

- DRR, DRM and DRRM
- Understanding the setting
 - Enhancing the set up
 - Planning the plan

DRR by UNISDR Terminology *

- The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.

*** 2009**

DRM by UNISDR Terminology *

- The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.

*** 2009**

DRRM by R.A. 10121 Terminology *

- The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster. Prospective disaster risk reduction and management refers to risk reduction and management activities that address and seek to avoid the development of new or increased disaster risks, especially if risk reduction policies are not put in place. *** 2010**

DR by UNISDR and R.A. 10121 *

- Disaster risk – The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.

*** 2009 and 2010**

D by UNISDR and R.A. 10121 *

- Disaster – A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources. [Disasters are often described as a result of the combination of: the exposure to a hazard; the conditions of vulnerability that are present; and insufficient capacity or measures to reduce or cope with the potential negative consequences.]

*** 2009 and 2010**

DRR Priority Areas for Action *

- Understanding disaster risk;
- Strengthening governance to manage disaster risk;
- Investing in disaster risk reduction and management for resilience; and
- Enhancing disaster preparedness for effective response, and to “build back better” in recovery, rehabilitation and reconstruction.

*** After the “Sendai Framework for Disaster Risk Reduction 2015-2030” (2015 March 18)**

Role of Academia *

“Academia, scientific and research entities and networks [are to be encouraged by the States] to: focus on the disaster risk factors and scenarios, including emerging disaster risks, in the medium and long term; increase research for regional, national and local application; support action by local communities and authorities; and support the interface between policy and science for decision-making...”

*** After the “Sendai Framework for Disaster Risk Reduction 2015-2030” (2015 March 18)**

D*MAPS Course at U.P. Diliman

- 625 general undergraduate students in 5 semesters so far
- All domains: Arts & Humanities; Math, Science & Technology; and Social Sciences & Philosophy
- Course Description: Introduction to principles and practices of natural disaster risk management by mitigation, adaptation, and preparedness strategies through civil engineering and related disciplines aiming for resilience.

*** Disaster Risk Mitigation, Adaptation and Preparedness Strategies (Civil Engineering 10 or CE 10)**

D*MAPS Course Goals

1. Explain the role of natural disaster risk management in nation building, responsible citizenship and earth stewardship.
2. Recognize the multiple disciplines and sectors involved in disaster risk management.
3. Communicate simple indicators and measures of commonly encountered natural or environmental hazards, especially in the Philippines.
4. Identify exposure or the various elements exposed to each hazard, and some simple measures of their vulnerability, or their resilience.
5. Integrate disaster risk management concepts to synthesize general alternative risk management strategies.
6. Display leadership, group organization and interpersonal skills for working together in group discussions, research, and presentations or productions

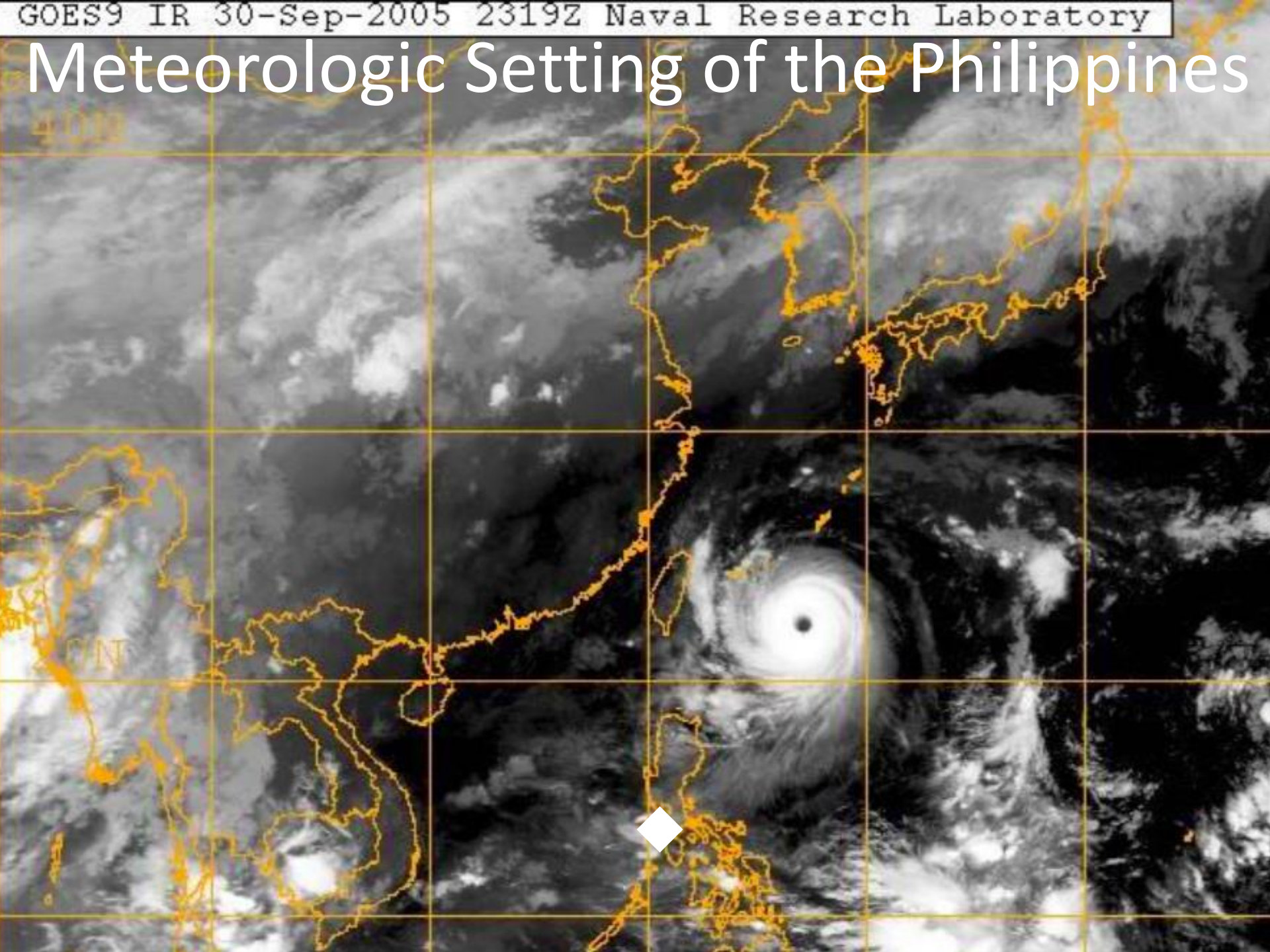
*** Disaster Risk Mitigation, Adaptation and Preparedness Strategies (Civil Engineering 10 or CE 10)**

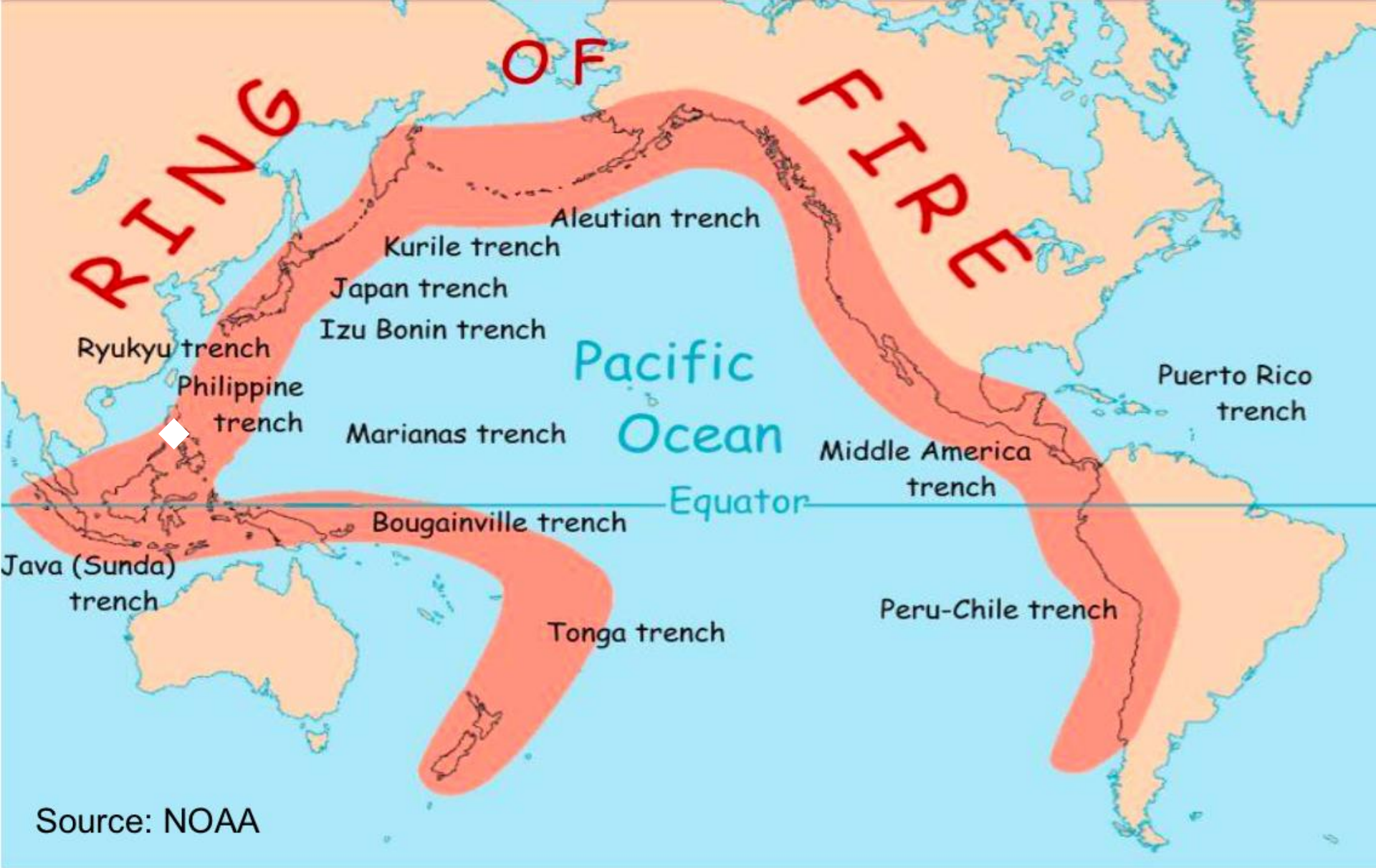
Challenge to Universities

- Practice
- What
- We
- Preach (Research and Teach)



Meteorologic Setting of the Philippines





Geologic Setting of the

Philippines



U.P. System

- ◆ U.P. Baguio
- ◆ U.P. Diliman
- ◆ U.P. Manila
- ◆ U.P. Los Baños
- ◆ U.P. Open U.
- ◆ U.P. Visayas (Iloilo & Tacloban)
- ◆ U.P. Cebu (Autonomous College)
- ◆ U.P. Mindanao

U.P. Diliman, looking East



Aerial view of the academic core part of UP Diliman; total area of 493 hectares.



Acacia



Occasionally

storm and/or flood

fire

earthquake

...

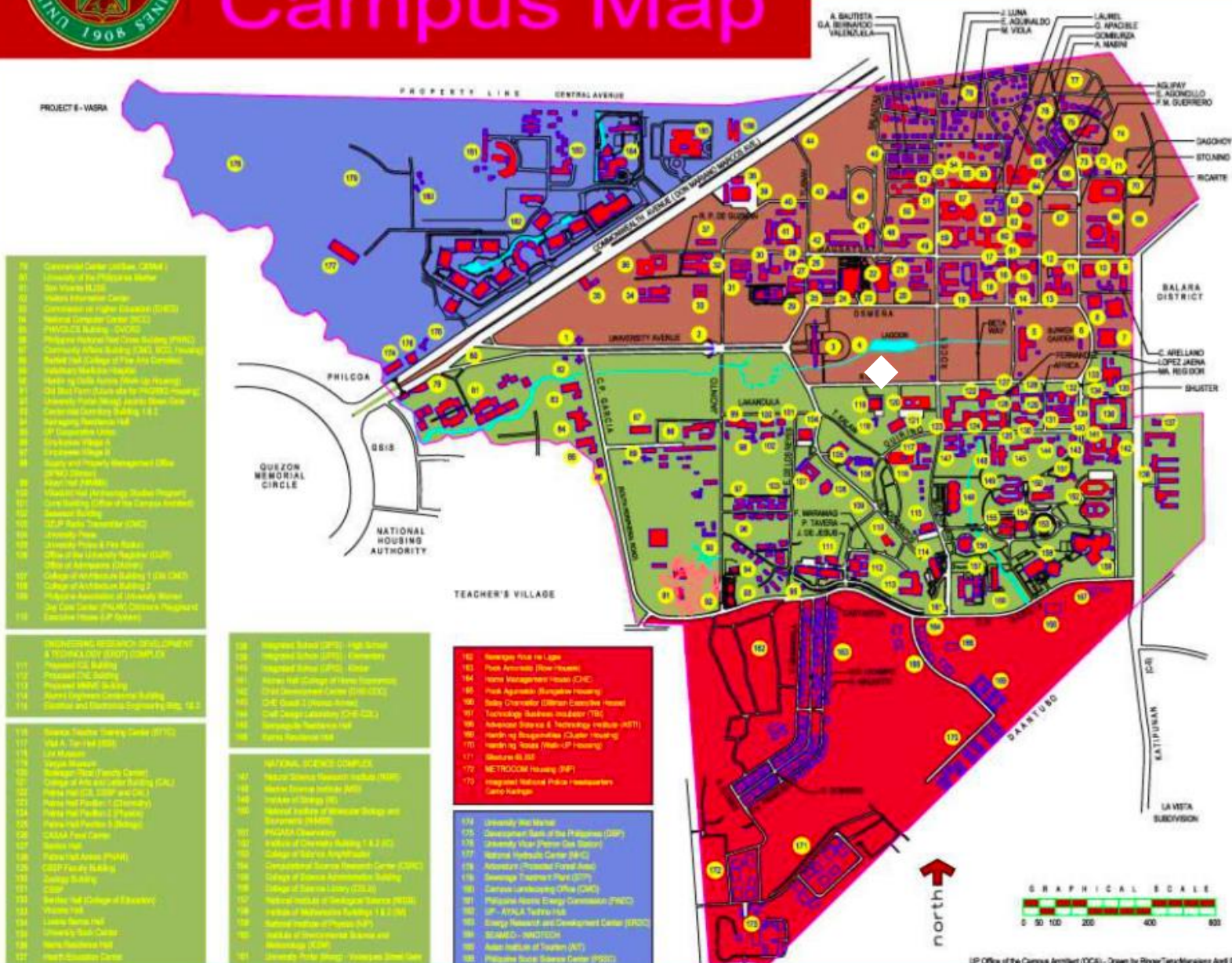
2,200 academic staff

25,000 students

70,000 residents including
informal settlers



1	Office of Higher Education Management
2	Waring Hall (TAMU) Chiquito
3	Quinn Hall (Astronomy Building)
4	Ames Hall - Office of Student Services
5	Office of the President, Texas A&M University, Institute of Technology (IUT)
6	Humanities Center and Periodicals Building
7	College of Business Administration (CBA)
8	School of Agriculture (SA)
9	1000 East 42nd Street
10	North Hall (Health Center)
11	Woods Hall (Law Library)
12	Law Center Administration Building
13	Woods Hall (College of Law)
14	National Engineering Center (NEC)
15	College of Mechanical Engineering & Design (CMED) and Department of Mechanical Engineering
16	Marion Intermediate Learning Center (MILC)
17	UP Computer Center
18	National Center for Transport Studies (NCTS)
19	Woods Hall (College of Engineering)
20	Textile Center
21	UP Employees Housing Cooperative (UP/ECO)
22	University Campus (Elm Campus)
23	Armed Services Collection Tower (Armed)
24	Woods Hall (UP President)
25	Armed and College of Health
26	College of Mass Admin. Building
27	Steen House
28	University Center for Women's Studies (UCWS)
29	Plumer Hall (College of Mass Communication)
30	College of Mass Communication and Mass Media Development (CMMC)
31	Woods Hall Building (School of Urban and Regional Planning - SURP), Plumer Hall
32	Woods Hall (School of Labor and Industrial Relations - SLIR)
33	Woods Hall (College of Small Space Industries - CSSI)
34	National Center for Public Administration and Governance (NCPAG)
35	West Gate Station
36	Steel Milling and Accounting Building, Commission on Higher Education (CHE)
37	Andrews House (CHS)
38	College Residential Hall (CHC)
39	Plumer Hall - University Residence
40	College of Human Studies
41	UP Energy and Building
42	UP Chemistry
43	Plumer Hall (Marine Center)
44	Andrews House (CHS)
45	University Public Storage - Thomas Street
46	Area 2
47	Area 3 - West and East Out and Graduate
48	Ang-Rambling UP Ranch
49	UP Personnel Information Office (PIO)
50	Woods Residence Hall
51	Rambling Residence Hall
52	UP Personnel Fund Building
53	UP Office
54	UP-Waters Office - CHS Quarter
55	On-Looking and Residences
56	Texas Courts (CHC)
57	UP Cooperative Dining
58	University Shopping Center
59	University Recreation Hall
60	Armed Residence Hall
61	Armed Residence Hall
62	School of Statistics (SCS) (CHC)
63	College of Health Office and School
64	Health and Safety Center (Health Care Office)
65	University Hall, Service (UHS)
66	Kellogg Day Care Center
67	Church of the River Lord (Protestant Church)
68	Residential Hall and Office in Campus (CHS)
69	University Center
70	West Woods
71	Residential, Residence Hall
72	Physician Association of University Women (PAUW)
73	Armed Building
74	Post Box, Between Wells and Housing
75	Armed
76	Post Box
77	Post Box
78	Post Box
79	Post Box
80	Post Box
81	Post Box
82	Post Box
83	Post Box
84	Post Box
85	Post Box
86	Post Box
87	Post Box
88	Post Box
89	Post Box
90	Post Box
91	Post Box
92	Post Box
93	Post Box
94	Post Box
95	Post Box
96	Post Box
97	Post Box
98	Post Box
99	Post Box
100	Post Box

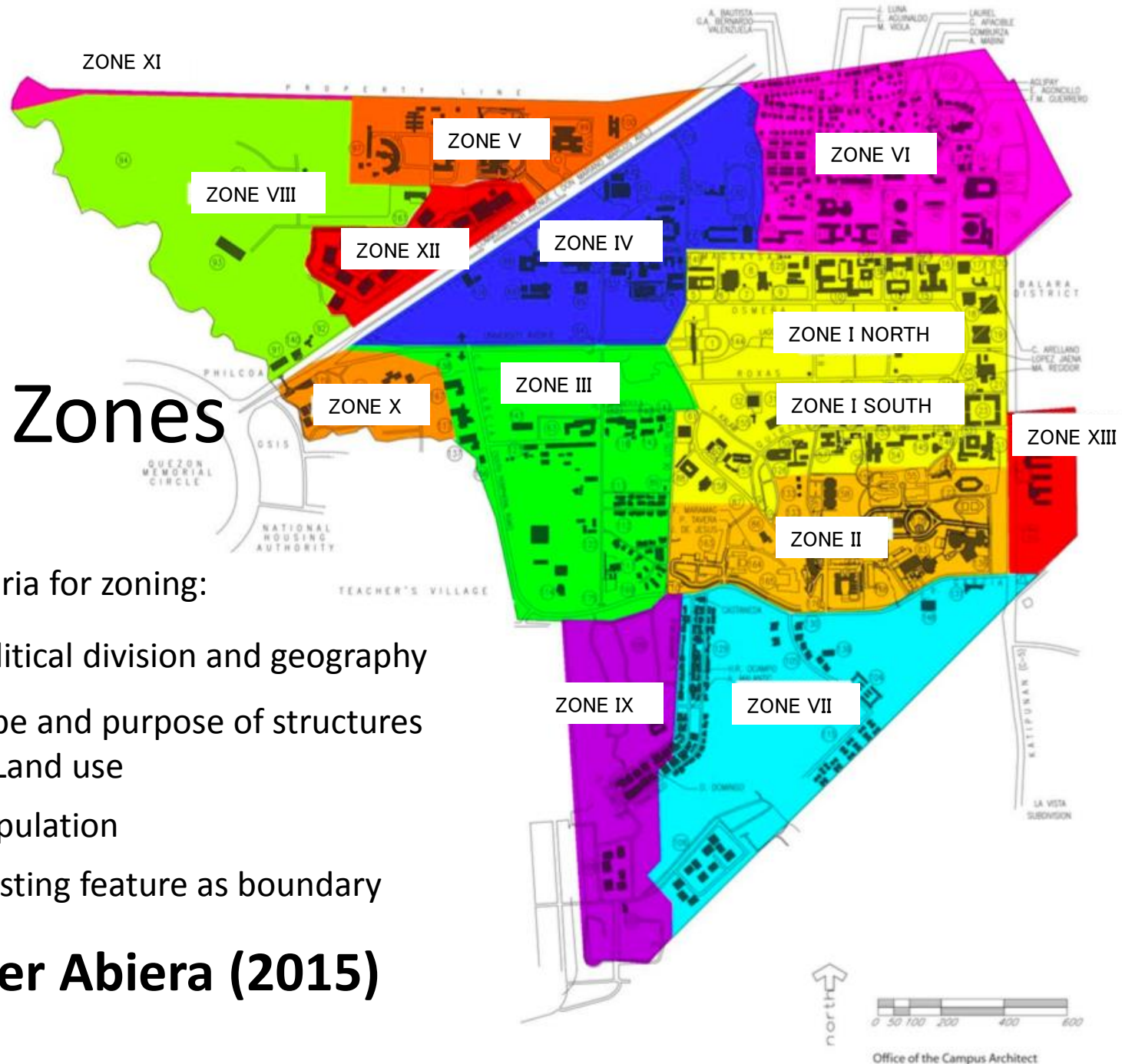


14 Zones

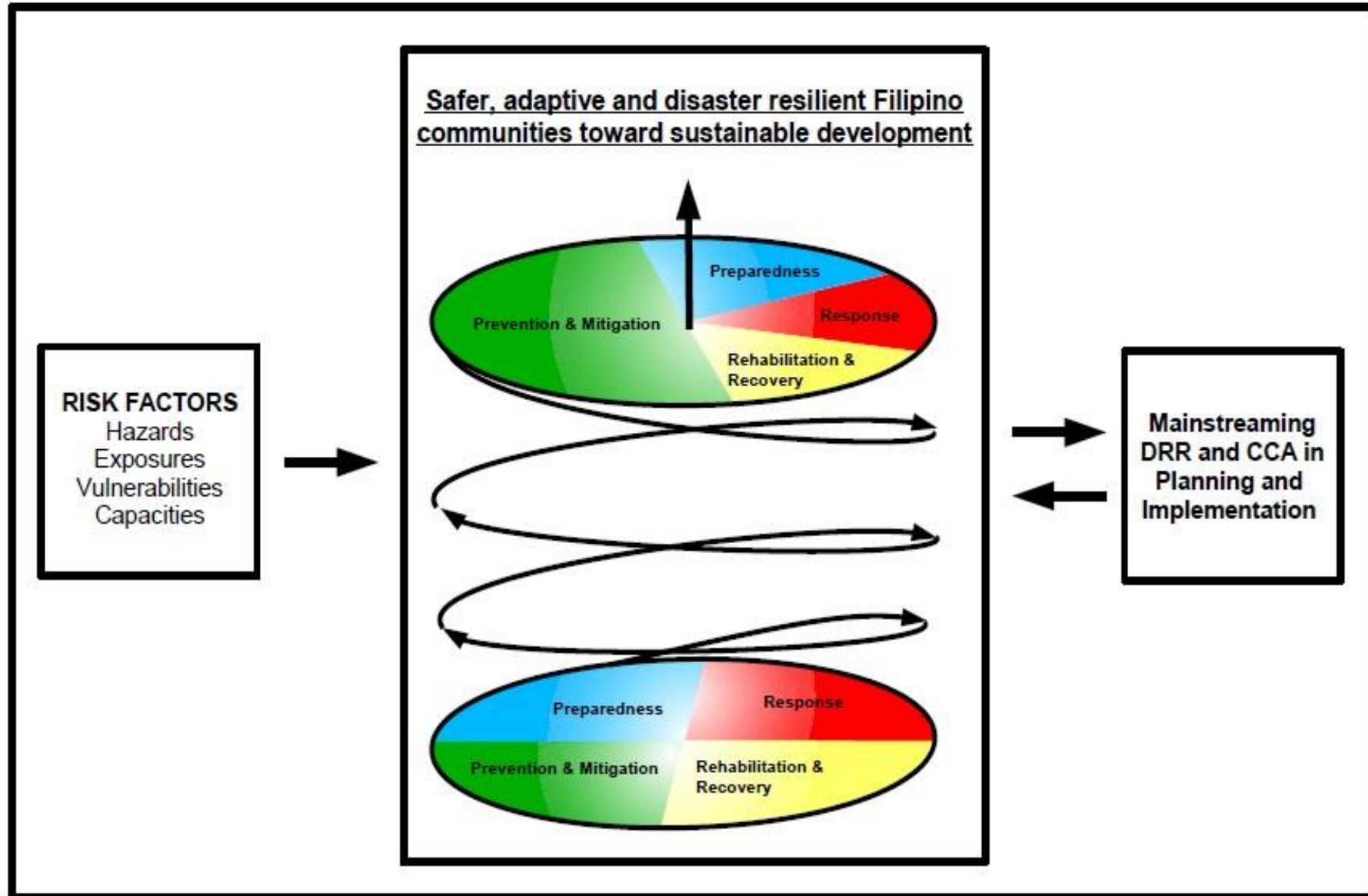
Criteria for zoning:

- > Political division and geography
- > Type and purpose of structures
 - > Land use
- > Population
- > Existing feature as boundary

After Abiera (2015)



Philippine DRM Framework



The DRM Thinking Hats *



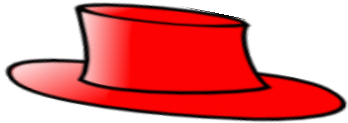
Green: HAZARD



Blue: EXPOSURE



Yellow: VULNERABILITY



Red: CAPACITY



Black: RISK



White: REALITY

*** After Edward de Bono**

Now

- RA 10121 since 2010: NDRRMC
 - Chair: Secretary of DND
 - Vice-Chair for Disaster Preparedness
 - Vice-Chair for Disaster Response
 - Vice-Chair for Disaster Prevention and Mitigation
 - Vice-Chair for Disaster Rehabilitation and Recovery

Sec. of DILG

Sec. of DSWD

Sec. of DOST

Sec. of NEDA

Near Future ?

- RA 10121 since 2010: NDRRMC
 - Chair: Secretary of DND
 - Vice-Chair for Disaster *Mitigation and Adaptation*
 - Vice-Chair for Disaster Preparedness
 - Vice-Chair for Disaster Response
 - Vice-Chair for Disaster *Recovery and Rehabilitation*

Sec. of DOST

Sec. of DILG

Sec. of DSWD

Sec. of NEDA

Future ?



- RA 10121 with new IRR: NDRRMC



Chair: Secretary of DND

- Vice-Chair for *Hazard Management*
- Vice-Chair for *Exposure Management*
- Vice-Chair for *Vulnerability Management*
- Vice-Chair for *Capacity Management*



Sec. of DOST



Sec. of DILG



Sec. of NEDA



Sec. of DSWD

New in U.P. Diliman

- UPD DRRM Committee (2015)



- Chair: Chancellor

- Vice-Chair for *Hazard Management*

- Vice-Chair for *Exposure Management*

- Vice-Chair for *Vulnerability Management*

- Vice-Chair for *Capacity Management*



VCRD



VCSA



VCA



VCCA



UPD Hazard Management SC

- Headed by Vice-Chancellor for R&D
 1. Develop, promote and implement a **Hazard Management Plan** particularly the mapping and monitoring of hazards in relation to various exposures and vulnerabilities in the vicinity of the University.
 2. Coordinate with other organizations inside and outside the University with similar functions.
 3. Propose and request appropriate resources.



UPD Exposure Management SC

- Headed by VC for Student Affairs
 1. Develop, promote and implement a **Student Preparedness Plan** to reduce their exposure such as, but not limited to, organizing, training, planning, and equipping.
 2. Facilitate the accreditation of National Service Reserve Corps reservists and their organization into a school-based NSRC unit, preferably any existing student organization with recognized DRRM program.
 3. Propose and request appropriate resources.



UPD Vulnerability Management SC

- Headed by VC for Administration
 1. Develop, promote and implement a **Business Continuity Plan** particularly provision of emergency resources.
 2. Coordinate with other organizations especially those essential to the sustenance of critical functions for the University.
 3. Plan and recommend prioritization of resources to reduce vulnerability prior to any disaster event, and aid early recovery and medium-term rehabilitation after any disaster event.



UPD Capacity Management SC

- Headed by VC for Community Affairs
 1. Develop, promote and implement an **Emergency Management Plan** particularly among University personnel, including preparedness of personnel in terms of capacity or capability building.
 2. Coordinate with **Barangays** within the University and vicinity.
 3. Propose and request appropriate resources.

UPD Institutional Training SC

- Headed by VC for Academic Affairs
 1. Develop, promote and implement an alternative learning environment for use in emergency.
 2. Develop, promote and implement, in coordination with the other Sub-Committees, a **DRRM Training Plan** for various University sectors.
 3. Coordinate with other training organizations inside and outside the University with similar functions.
 4. Propose and request appropriate resources.

Planning the Plan

- UPD DRRM Template (2015 November 13)

– Hazard Management Plan



VCRD

– Student Preparedness Plan



VCSA

– Business Continuity Plan



VCA

– Emergency Management Plan



VCCA

More Elements of Plan Template

- Hazard Management
 1. Hazard Assessment
 2. Hazard Mitigation

After Abiera (2015)

Coverage of literature survey:

- > 60 DRM-related plans from 48 universities abroad
- > APRU-IRIDeS Campus Safety Report 2015
- > UPD DRRM Committee administrative orders

More Elements of Plan Template

- Exposure Management
 1. Campus Maps
 2. University and Zone Overviews
 3. Evacuation

After Abiera (2015)

Coverage of literature survey:

- > 60 DRM-related plans from 48 universities abroad
- > APRU-IRIDeS Campus Safety Report 2015
- > UPD DRRM Committee administrative orders

More Elements of Plan Template

- Vulnerability Management
 1. Business Continuity
 2. Recovery

After Abiera (2015)

Coverage of literature survey:

- > 60 DRM-related plans from 48 universities abroad
- > APRU-IRIDeS Campus Safety Report 2015
- > UPD DRRM Committee administrative orders

More Elements of Plan Template

- Capacity Management
 1. Organizational Structure of the DRM Unit
 2. Communication Plan and Command Systems
 3. Emergency Directory
 4. Emergency Response and Operations
 5. Governance Actions

After Abiera (2015)

Coverage of literature survey:

- > 60 DRM-related plans from 48 universities abroad
- > APRU-IRIDeS Campus Safety Report 2015
- > UPD DRRM Committee administrative orders

More Elements of Plan Template

- Risk Management
 1. Institutional Training
 2. Risk Assessment
 3. Emergency Level Classification
 4. Data Preservation
 5. Plan Evaluation and Review

After Abiera (2015)

Coverage of literature survey:

- > 60 DRM-related plans from 48 universities abroad
- > APRU-IRIDeS Campus Safety Report 2015
- > UPD DRRM Committee administrative orders

Challenge to Universities

- Practice
- What
- We
- Preach



B. M. Pacheco riskguide101@up.edu.ph