



Portfolio PLANADES Climate Change Disaster Risk Management (CCDRM) Unit

The Planning and Development Research Foundation, Inc. (PLANADES) is a non-stock corporation with a company sub-class non-stock, non-profit organization engaged in research, consultancy and extension services, academic development and training in environmental, urban and regional planning, and related disciplines. Incorporated by a group of specialists and practitioners, its articles of Incorporation were registered with the Securities and Exchange Commission in December 1976, with its Code of By-Laws subsequently approved the following year. In 1978, PLANADES was certified as a tax-exempt corporation by the Department of Science and Technology (DOST), formerly the National Science Development Board. It formally entered into a working and collaborative arrangement under a Memorandum of Agreement dated 10 August 1978 with the U.P. School of Urban and Regional Planning (UP SURP) where the corporation is presently based. PLANADES is a NEDA/COFILCO Accredited Firm with FILCON Consultant Code No. CC-100054. In close collaboration with U.P. SURP, PLANADES has since operated as a private entity engaged in promoting studies and applied research and providing technical assistance by way of consultancy/extension services to government and non-government entities. It has also supported scholarships and professorial chairs, as well as the development of publications and other related areas.

PLANADES maintains a highly-respected multi-disciplinary staff complement of planning, management, finance, and design professionals who have been involved in the successful planning and implementation of environmentally-sensitive and economically-sound development plans.

PLANADES has been engaged in research, consultancy and extension services, academic development and training in environmental, urban and regional planning, and related disciplines for more than 40 years. In addition to planning and implementing environmentally sensitive and economically-sound development plans, PLANADES commits to help build resilient communities and cities.

With the impacts of climate change, along with increased population, urbanization, and environmental degradation, PLANADES was involved in Building the Resilience and Awareness of Metro Manila Communities to Natural Disasters and Climate Change impacts Program: Preparatory Phase: Capacity Building Team (BRACE) I in 2013. PLANADES has done substantial number of studies related to environmental impact



assessment and City ecological profiling including biodiversity and risk sensitivity of climates change phenomena's and natural and made hazards since 1980.

PLANADES established its formal Disaster Risk Management/Climate Change Adaptation and Mitigation office in 2015 and what is now called Climate Change and Disaster Risk Management (CCDRM) Unit. The creation of CCDRM Unit shows the dedication of PLANADES to mainstream DRR and CCAM (risk-informed) in policy formulation and development plans particularly in PLANADES' Projects especially related to climate change action plan priority areas (i.e., food Security, water security, ecological and environmental stability, human security, climate friendly industries and services, sustainable energy, and knowledge and capacity development); sustainable development goals 2030 (i.e., no poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, inequality, sustainable cities and communities, responsible consumption and production, climate action, life below water, life on land, peace and justice strong institutions, and partnerships to achieve the goal); and disaster risk reduction management thematic areas (i.e., Disaster preparedness, response, rehabilitation and recovery and prevention, and mitigation); including land-use and urban planning; and public infrastructure and housing among others.

The PLANADES CCDRM Unit aims to strengthen long-term disaster resilience through capacitating communities on climate change adaptation and disaster risk reduction management. It shall develop and implement programs in the areas of community resilience recovery and rehabilitation, and research and innovation.

Mission of the CCDRM Unit

To Supplement the mission of the PLANADES in providing the specialized services in the field of Climate Change and Disaster Risk Management (CCDRM) and train leaders, decision makers, front liners, etc in mainstreaming the CCDRM in risk-informed local, provincial, regional, national and global land-use, development, and any aspects of community, local, provincial, regional, national and global functionalities

Objectives of the CCDRM Unit

1. Educate community leaders, decision makers, front liners, planners, educators and other directly or indirectly involved personnel in CCDRM field and risk-informed (risk-sensitive) land-use and development plan



2. Develop and design CCDRM-related short certificate courses for Local to National Government personnel;
3. Organize periodic local and international CCDRM risk-informed land-use and development planning, and business continuity related Conferences, training programs, workshops, symposiums, and alike activities that can be credited for Continuing Professional Development requirement.; Support and advance the existing training programs of University of the Philippines, School of Urban and Regional Planning Training and Extension Services; and
4. Develop Research and Publication based venue for peer to peer knowledge sharing, public lecture series, open dialogues, and panel and focus group discussions of Local to International leaders, planners, advocates, and other professionals associated to CCDRM.
5. Develop local and international partnership and linkages to promote and achieve above CCDRM objectives and PLANADES main objectives.

Projects

PLANADES has been working with the local and international private and public sectors in promoting climate change and disaster resilience toward land-use and development planning. The following are some of the notable projects done by PLANADES related to disaster risk-informed land-use and development planning from local to international level management in the last 20 years.

Are City Climate Plans Adequate for Mitigating Weather Extremes? An Investigation of Southeast Asian Cities

PLANADES and Curtin University, Perth, Australia will be working together to investigate whether SEA cities are capable of mitigating Climate Change on urban population and try to find solutions to prevent rising temperatures by adopting mitigating measures under the project “Are City Climate Plans Adequate for Mitigating Weather Extremes? An Investigating of Southeast Asian Cities.

In this Project, PLANADES will conduct microclimate assessment and data collection, field surveys, key informant interviews in Metro Manila to identify the attitudes and perceptions of the government officials and policy makers towards ecosystem-based solutions (EbS). Further, PLANADES will develop climate action and risk-informed (risk sensitive) plans through organizing workshops and capacity building trainings. The



climate action and risk sensitive plans shall be mainstreamed to the land-use and development plans of the cities

Linking Disaster Risk Governance and Land-Use Planning: The Case of Informal Settlements in Hazard Prone Areas in the Philippines

PLANADES, in partnership with Technische Universität (TU) Dortmund is implementing the Linking Disaster Risk Governance and Land-Use Planning: The Case of Informal Settlements in Hazard Prone Areas in the Philippines (LIRLAP). The project started in 2019 and now, it is on its second phase until 2025.

The project aims at tackling the severe problem of strategic risk reduction under conditions of urban poverty and informal urban development. It aims at developing and testing knowledge-based solutions for mainstreaming risk reduction measures (upgrading and retreat) in settlements with high disaster risk, yet the absence or ineffectiveness of formal planning mechanisms.



The research seeks to improve the evidence basis for decisions on sustainable and socially acceptable solutions to the widespread problem of informal settler families living in endangered areas. Moreover, it wants to strengthen the capacity of local and regional actors to properly address these planning problems. This also includes on-site upgrading of the settlement to avoid relocation. The ultimate goal of this effort is to make resettlement and upgraded sites – and thus the city as a whole – more resilient by mainstreaming upgrading and resettlement strategies in urban areas.



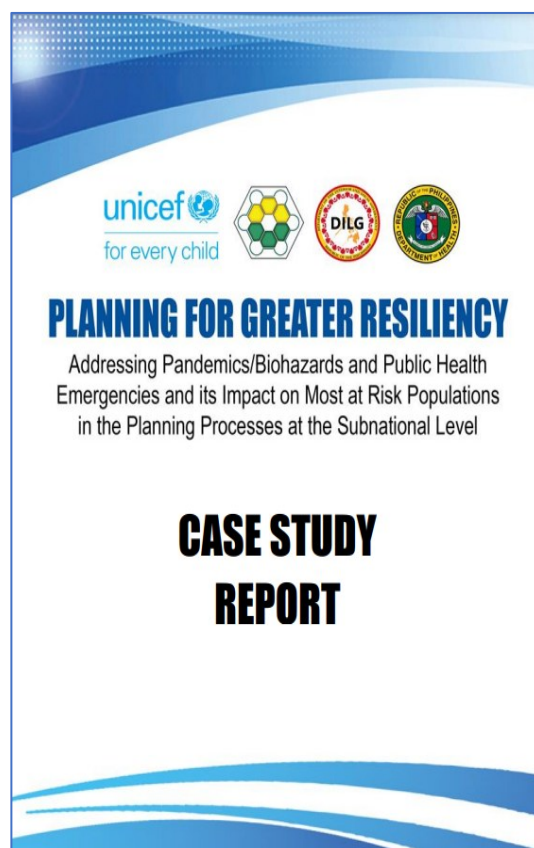
The project has the following sub goals:

- To integrate disaster risk management with comprehensive development strategies and riskbased land-use planning in hazard prone areas with a particular focus on informal settlements;
- To build resilient communities in upgrading and retreat via disaster risk governance and adapted spatial planning, particularly at the level of informal settlement through participatory coproduction of knowledge for upgrading and retrofitting as a new paradigm; and
- To develop capacities of stakeholders (LGUs, NGAs, NGOs, private sectors) in building sustainable and disaster resilient communities

Planning for Greater Resiliency (PGR)- Addressing Pandemics/ Biohazards and Public Health Emergencies and its Impact on Most at Risk Populations in Planning Processes at the Sub national Level.

Given that natural disasters become more frequent and severe due to global climate change; the rise of infectious disease outbreaks also threatens the world.

In 2021, PLANADES worked with the Department of Interior and Local Government (DILG) and Department of Health to conduct a case study on Planning for Greater Resiliency (PGR)- Addressing Pandemics/ Biohazards and Public Health Emergencies and its Impact on Most at Risk Populations in Planning Processes at the Subnational Level. This project, funded by UNICEF, seeks to distill the lessons on health emergency management from urban communities in the Philippines and identify strategic measures to mainstream health-related disaster management and resilience in the local development planning system. As the COVID-19 impacts overwhelmed many local





governments, PGR developed updated guidance both cognizant of the existing institutional and legal frameworks and informed by practical lessons from the ground. The body of knowledge that PGR contributes will hopefully strengthen long-term resilience of local government units.

Centre for Sustainable, Healthy and Learning Cities and Neighbourhoods

SHLC RESEARCH SUMMARY 04

Batangas: neighbourhood patterns

Mario R. Delos Reyes, Mark Anthony M. Gamboa, University of the Philippines School of Urban and Regional Planning
Keith Gerard L. Dagulo, Ryan Randle B. Rivera, Centre for Neighbourhood Studies (CENS)

October 2020



To understand the interrelationship between sustainability, education and health in an urban context in the Philippines, this study examines emerging patterns of neighbourhood distribution in Batangas City, a regional city located at the western side of Luzon island.

Shifting the focus from a general discussion of sustainable cities to the development of sustainable neighbourhoods, it investigates the social, economic and physical structures that characterise – and divide – Batangas.

KEY FINDINGS

- The centre of Batangas has become the most densely populated area of the city, although the population has started to expand outwards in recent years. From 1990 to 2016, Batangas city's overall population increased by an average of 2% annually, yet built-up areas, mostly in the north, expanded by 7%.
- The socio-spatial structure of Batangas City is shaped by factors such as geographical features, the presence (or not) of economic activities and opportunities, infrastructure networks and local spatial policies.
- A north-south divide exists in terms of socioeconomic development. The northern part of Batangas, where the built-up commercial and cultural centre is located, is clearly different to the southern area of the city, which – due to its location and environment – has continued to sustain mainly on agriculture, has a lower population density and has significant dispersal of settlements.
- The spatial distribution of neighbourhoods has varied effects in terms of health, education and sustainable development. Physical proximity to services is not enough to propel neighbourhoods towards sustainable development – access needs to be understood as being multifaceted.
- Batangas – the smallest political and administrative unit in the Philippines – tend not to completely capture the nuances, functionalities and even boundaries of neighbourhoods (*kapitbahayan*) in Batangas. A novel way of approaching *kapitbahayan* that is underpinned by 'lived understanding' of neighbourhoods can provide a new perspective on the attainment of good health, well-being and quality education for the population of Batangas.

www.centreforsustainablecities.ac.uk



SHLC RESEARCH SUMMARY 05

Manila: understanding neighbourhoods for a more sustainable city

Mario R. Delos Reyes, Mark Anthony M. Gamboa, University of the Philippines School of Urban and Regional Planning
Keith Gerard L. Dagulo, Ryan Randle B. Rivera, Centre for Neighbourhood Studies (CENS)

October 2020



This study seeks to understand the internal structure of the City of Manila – a highly urbanised city in the westernmost region of Metropolitan Manila, the Philippines, and often considered one of the densest cities in the world.

It analyses the social, economic and spatial structures of the city to consider emerging patterns of neighbourhood distribution and key challenges for the development of sustainable neighbourhoods.

KEY FINDINGS

- The City of Manila is an example of a persistently expanding historic city that has seen continuous population growth in recent decades.
- Manila's land cover consists of almost entirely built-up areas, with vertical and interstitial expansion transitioning to land reclamation.
- Neighbourhoods of varying types, intensities and wide socioeconomic groups can be found in all districts of the city. Unconventional living quarters have existed for several years, including dwellings in abandoned ancestral buildings, old classrooms and a public cemetery.
- Proximity to places of work and access to urban services are among the primary drivers of the settlement pattern in Manila, its centrality, however, does not guarantee that quality and adequate social services are extended to residents, especially among lower-income neighbourhoods.
- Batangas – the smallest political and administrative unit in the Philippines – tend not to completely capture the nuances, functionalities and even boundaries of neighbourhoods (*kapitbahayan*) in Manila. A new way of approaching *kapitbahayan* based on 'lived understanding' of neighbourhoods can shed light on the attainment of good health, quality education and sustainable living for the population of Manila.

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PLANADES, together with the University of Glasgow, brings together a multi-disciplinary academics (including policy and governance specialists on urban development, health and wellbeing, and education) and international experts from seven developing countries (South Africa, Rwanda, Tanzania, India, Bangladesh, Philippines and China) in the *Centre for Sustainable, Healthy and Learning Cities and Neighbourhoods*. The research will identify changes in urban planning policy and public service as it relates to urban neighborhoods and position this alongside an in-depth study of daily experiences of neighborhood life. It has two overall aims:

Climate Change and Disaster Risk Management Unit



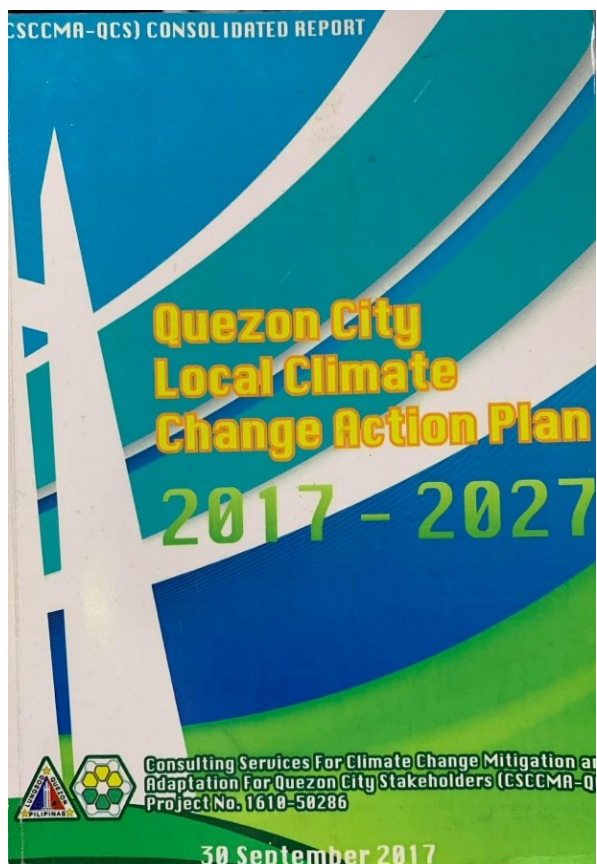
1. strengthen research capacity among urban studies researchers, government officials, and policy makers in the public and private sectors; and
2. conduct systematic and comparative studies of urbanization and the formation and differentiation of neighborhoods in urban areas in order to address the challenges associated with urbanization and large-scale rural-to-urban migration in Africa and Asia.

The SHLC addresses three inter-related policy themes: (1) Sustainable health and well-being; (2) inclusive and equitable quality education; and, (3) sustainable cities and communities.

Quezon City Government partnered with PLANADES in formulating the City's Local Climate Action Plan (LCCAP) 2017-2027.

The Republic Act No. 9729 or Climate Change Act of 2009 mandates the LGUs, as the frontline agencies in the formulation, planning and implementation of climate change action plans, to regularly update their Local Climate Change Action Plan to reflect changing social, economic, and environmental conditions and emerging issues.

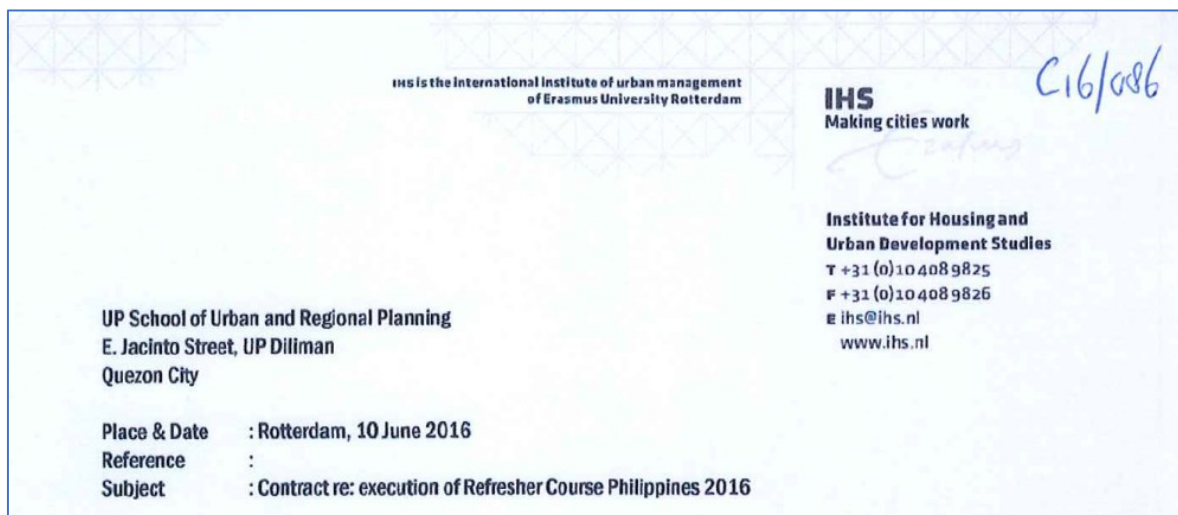
In 2017, the Quezon City Government partnered with PLANADES in formulating the City's Local Climate Action Plan (LCCAP) 2017-2027. The document outlines the specific programs, projects, and activities (PPAs) of the City in mitigating climate change. In addition to LCCAP, PLANADES also developed a step-by-step training manual designed for enabling and capacitating its leaders and residents to respond with resiliency to the challenges of Climate Change.





International Housing and Urban Development Studies

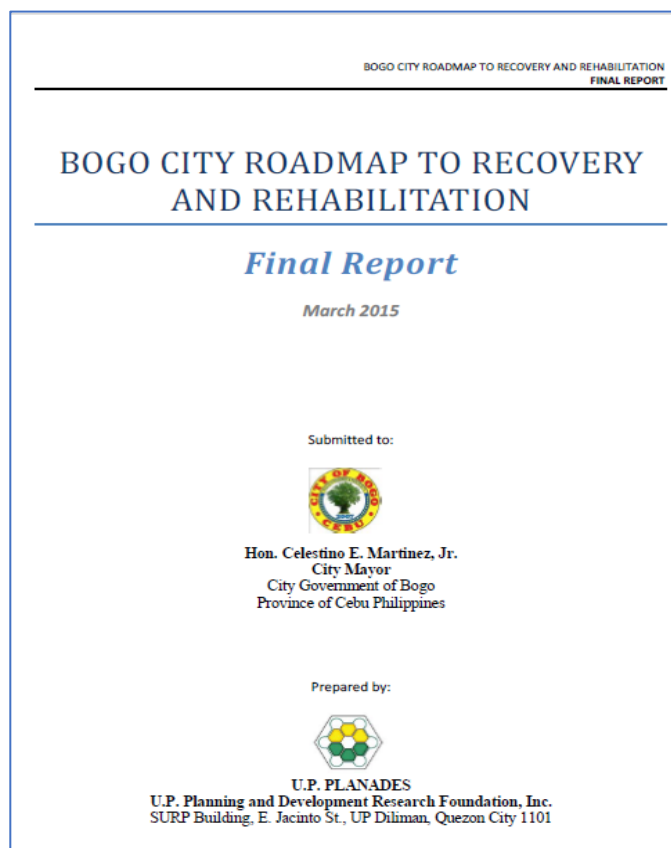
PLANADES also worked with the International Housing and Urban Development Studies to conduct a Refresher Course on The Role of Women's Organizations in C



Climate Change Induced Resettlements in the Philippines. The course increased and deepened the knowledge of the participants regarding the relationship between gender, housing, and the environment. Further, the course focused on the role of women's organizations in ensuring the enforcement of housing rights in communities which have been resettled due to disasters

Bogo City Road Map to Recovery and Rehabilitation.

In the aftermath of typhoon, Bogo City has been littered with tons of debris from damaged houses, buildings, and other structures. The clearing operations have collected volumes of garbage scattered around the city. The typhoon has also displaced thousands of people. Those who are living in coastal areas have been relocated as their homes were washed out by the seawater. With these scenarios, the city government was left with the challenging task of recovery. However, aid and relief efforts came in droves into the city.



City Government of Bogo contracted PLANADES to formulate the Bogo City Road Map to Recovery and Rehabilitation. The Road Map served as a guide to facilitate the rehabilitation of Bogo City from the devastation brought by typhoon Yolanda (Haiyan). This report is influenced by the principle of "Building Back Better".

Zamboanga City Roadmap to Recovery and Reconstruction (Z3R)

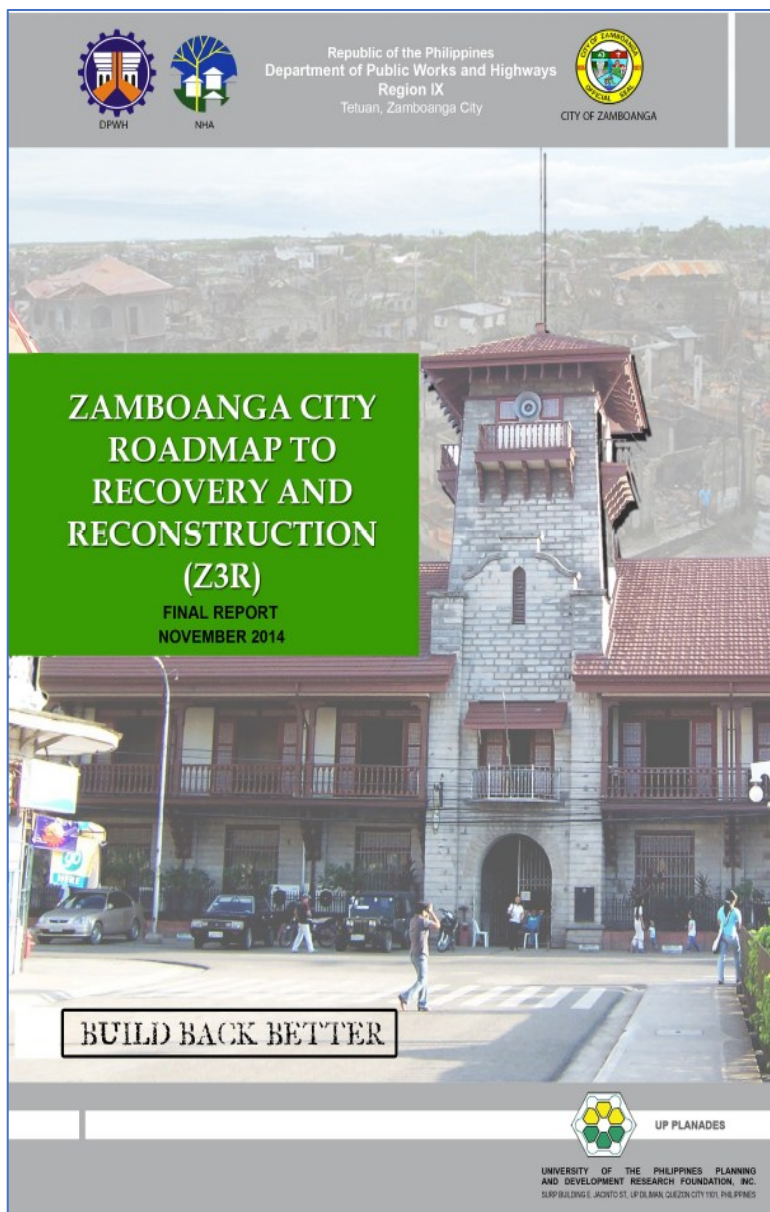
The Zamboanga Crisis, created a socio-economic catastrophe in the city. The crisis occurred in six barangays which form part of Zamboanga City's commercial center and which host key government facilities. Per the December 2, 2013 Post Conflict Needs Assessment Report of the Office of Civil Defense Regional Disaster Risk Reduction and Management Council Region IX, "the 21 day siege left over 400 people killed, countless injured, at least 110,000 Internally Displaced Persons (IDPs) in evacuation centers; billions in economic loss, over 10,000 residential and commercial establishments burned or completely destroyed.



Because of the crisis, the entire City of Zamboanga experienced a humanitarian crisis. The most affected group is the IDPs who are having difficulties in leading normal lives as they are unable to meet their basic needs. Hence, there is a need for necessary and urgent interventions to be rolled-out to prevent further complications in health, education, livelihood and security of the people.

In response to the crisis, Pres. Benigno Simeon Aquino III instructed Department of Public Works and Highways (DPWH) Secretary Rogelio L. Singson to lead the rehabilitation and reconstruction of the conflict-affected areas.

DPWH, with the participation of the local government of Zamboanga City, have been tasked to lay down a strategic roadmap to identify programs and projects to pursue the immediate rehabilitation and long-term redevelopment of the conflict-affected areas. It is within this context that DPWH commissioned UP PLANADES (the Consultant) to provide consultancy services in the preparation of Zamboanga City's Roadmap to Recovery and Reconstruction (Z3R).





Metro Manila Reconstruction and Rehabilitation Program: Socio- Economic Assessment and Development Options for Housing Finance and Sustainable Livelihood

METRO MANILA RECONSTRUCTION AND REHABILITATION PROGRAM:
SOCIO-ECONOMIC ASSESSMENT AND DEVELOPMENT OF OPTIONS FOR
HOUSING FINANCE AND SUSTAINABLE LIVELIHOODS

FINAL REPORT

Submitted to:
Australian Agency for International Development
(AusAID)
Level 23, Tower 2, RCBC Plaza
6819 Ayala Avenue, Makati City

Submitted by:
U.P. Planning and Development Research Foundation, Inc.
(UP PLANADES)
School of Urban and Regional Planning
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Diliman, Quezon City

June 2, 2010

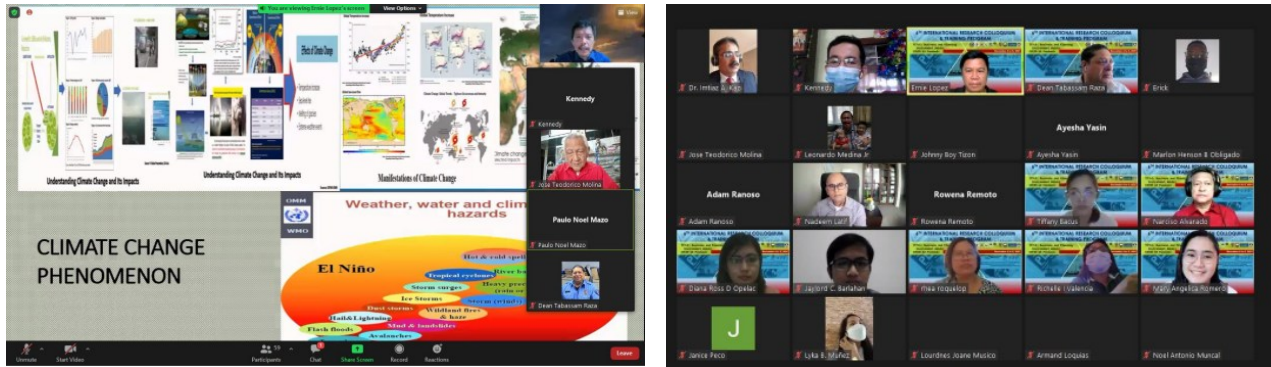
Following a Post-Disaster Needs Assessment (PDNA) after the devastation caused by Typhoons Ketsana (local name 'Ondoy') and Parma (local name 'Pepeng') in Metro Manila, an urban recovery and reconstruction program was proposed by the AusAID Philippines Program as a response to the needs of flood-affected areas in Metro Manila. The UP Planning and Development Research Foundation, Inc. (UP PLANADES) was commissioned to develop analytical pieces that will inform the design of the Social Housing and Livelihood component of the Metro Manila Reconstruction and Rehabilitation Program. The design of the social housing and livelihood component will incorporate the UN and WB principle of 'building back better' whereby reconstruction and future development of metropolitan/urban areas take into consideration appropriate disaster risk reduction (DRR) strategies in rehabilitation efforts to reduce vulnerability and improve living

conditions, and promote a more effective reconstruction process. The initiative is intended as a substantial contribution to sustainable rehabilitation and development and will serve as a demonstration activity that is replicable and can inform the broader resettlement efforts of other parts of Metro Manila and cities throughout the Philippines.



Programs and Activities

6th International Research Colloquium Training Program



In December 2021, PLANADES co-organized the 6th International Research Colloquium, Training Program together with Philippine School of Business Administration (PSBA)- Manila, PSBA DRM Unit, Quezon City Government, University of the Philippines- School of Urban and Regional Planning, Lahore College for Women University, University of Engineering and Technology, United Nations Disaster Risk Reduction Sendai Framework Voluntary Commitments, Office of the Civil Defense, and DPMM of the Asian Institute of Technology.

The research colloquium focused on these themes- Micro, Small, and Medium Enterprises in the New Normal, Financial Mechanisms towards Disaster Management and Business Continuity Planning, Emergency Situation Analysis and Crisis Management towards Rescue and Response, Mainstreaming DRM and CCA in Development Planning, and CBDRM Process towards resilient communities.



5th International Research Colloquium Training Program



Further, PLANADES co-organized the 5th International Research Colloquium, Training Program together with its long-time partners- Philippine School of Business Administration (PSBA)- Manila, PSBA DRM Unit, Quezon City Government, University of the Philippines- School of Urban and Regional Planning, Lahore College for Women University, University of Engineering and Technology, United Nations Disaster Risk Reduction Sendai Framework Voluntary Commitments, Office of the Civil Defense, and DPMM of the Asian Institute of Technology.

The 5th International Research Colloquium Training Program theme “Challenges and Opportunities for Micro, Small, and Medium-Sized Enterprises during the COVID-19 Pandemic: A New Normal” had the following objectives: 1) Determine the impacts of COVID-19 containment measures and the responses of Philippine enterprises. 2) Identify gaps and areas of improvement that can guide and inform the design of technical assistance, stimulus packages and other financing opportunities for SME recovery beyond addressing the usual cashflow bottlenecks, but also to build better and increased resilience against possible future social or economic shocks. 3) Improve customer relationship management systems and promote safe interactions with customers to provide real-time customer assistance. 4) Understanding how to utilize government support and opportunities to come up with new policies and to rebuild MSME segment. 5) To identify the MSMEs business opportunities, ideas, and concept to start during pandemic and post pandemic. Promote digitization among financial institutions and enhance the capacity of the micro, small, and medium-sized enterprises to adopt relevant digital technologies. 6) Identify current strategies being adopted by MSMEs in tackling the current situation. 7) Determine alternative businesses MSMEs can venture in amidst the current COVID-19 crisis



Linking Disaster Risk Governance and Land-Use Planning: The Case of Informal Settlements in Hazard Prone Areas in the Philippines

Work Package 5 of the Linking Disaster Risk Governance Land-Use Planning: The Case of Informal Settlements in Hazard Prone Areas in the Philippines (LIRLAP) is Capacity Building.

Resilient informal upgrading will only be successful and sustainable, if accompanied by capacity building of stakeholders at the local and national levels as well as in the academia and if results will be broadly disseminated and utilized. This includes the development, conduction and evaluation of training courses for key stakeholders involved in disaster risk management and urban governance. To sustain the knowledge and good practices of disaster risk reduction and management as well as urban governance in the Philippines and the partner countries Thailand and Vietnam, the first part of WP5 is the strengthening stakeholders' capabilities and their networks are crucial



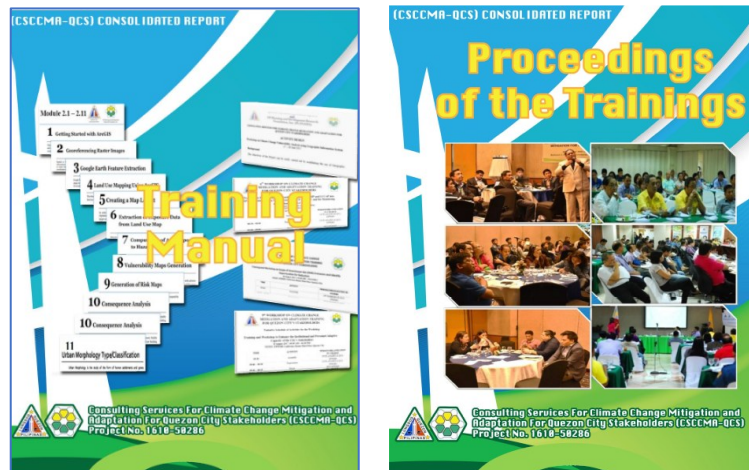
The second part, a Dual PhD between TUDO and SURP on topics of urban planning and resilience and disaster risk reduction and management with regular PhD workshops is planned. To build up a new generation of local experts on disaster risk reduction and management and urban governance, the Dual PhD program between TU Dortmund and UP SURP universities is a fundamental

step in intensifying academic cooperation. Students at the PhD level shall be intensively involved in all research activities of the various WPs. LMU and Stuttgart Universities will be involved in joint supervision as well.



Training program in developing Quezon City Government partnered with PLANADES in formulating the City's Local Climate Action Plan (LCCAP) 2017-2027.

PLANADES also developed a step-by-step training manual designed for enabling and capacitating its leaders and residents to respond with resiliency to the challenges of Climate Change.



International seminar on Disaster Risk Management towards Business Continuity

International seminar on Disaster Risk Management towards Business Continuity was organized in 2018 through the partnership of PLANADES, Lahore College for Women University (LCWU), Lahore, Pakistan, and Philippine School of Business Administration (PSBA)- Manila.

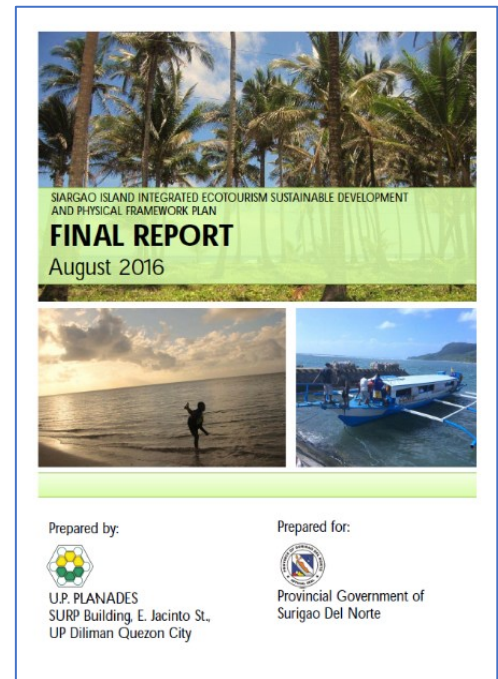




Siargao Island Ecotourism Sustainable Development & Physical Framework Planning

The Provincial Government of Surigao Del Norte tapped the consultancy services of UP PLANADES for the preparation of the Siargao Island Integrated Ecotourism Sustainability Development and Physical Framework Plan. The Plan will build on the Comprehensive Land Use Plan (CLUP) of the nine (9) municipalities in Siargao Island and anchored on ecotourism development using ecosystem-based approach. It shall also facilitate an island-wide convergence of development initiatives including technical support services from national agencies and strengthening inter-LGU alliances to enable vulnerable communities to adapt to climate change and reduce poverty.

This activity's overarching goal is to mainstream CCA-DRR in Siargao Island-wide



Development and Physical Framework Plan (SIDPFP) based on agriculture-fisheries and tourism development thrusts. Workshops and trainings will be done as part of knowledge transfer to LGU.

Special Course on Urban and Regional Planning: A Basic Course in Urban and Regional Planning

In collaboration with the University of the Philippines School of Urban and Regional Planning, PLANADES is offering Special Course on Urban and Regional Planning: A Basic Course in Urban and Regional Planning.

The training program serves as an orientation-cum-introductory course in the basic concepts, processes and methodologies of urban and regional planning. The course also provides updates on the latest approaches, tools and techniques in the profession

Climate Change and Disaster Risk Management Unit



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The five-day training program includes topics on the following: The Philippine Planning System, Population and Social Development, Local Economic Development, Estate Planning and Management, Public Works Planning, Transport Planning and Traffic Management, Environmental and Natural Resources Management, Public Private Partnership, Climate Change Adaptation and Disaster Risk Reduction and Management Concepts and Strategies, Strategical Environmental Assessment, Smart Growth/Green Urbanism, among the other topics.

Special Course on Urban and Regional Planning (SCURP): A Basic Course in Urban and Regional Planning



SCURP: ABC in URP

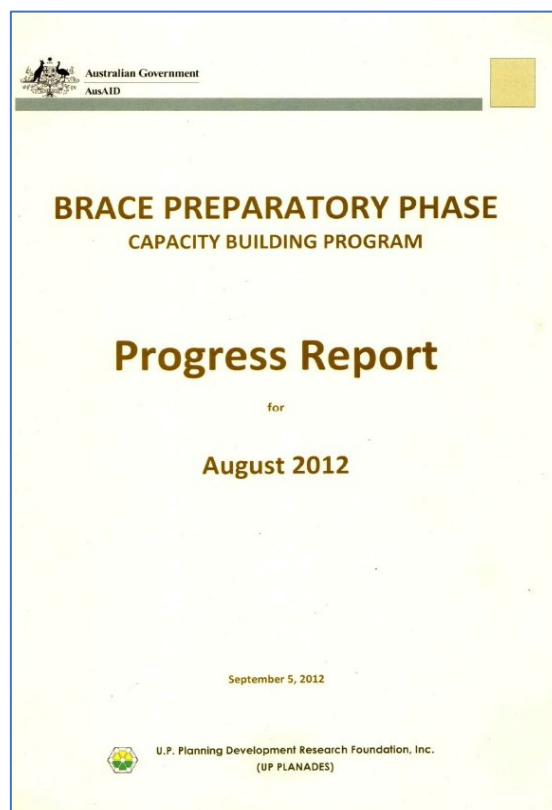
Special Course on Urban and Regional Planning



Building the Resilience and Awareness of Metro Manila Communities to Natural Disasters and Climate Change Impacts Program: Preparatory Phase: Capacity Building Team

UP PLANADES was commissioned by the Australian Agency for International Development (AusAID) in October 2009 to design and conduct the BRACE Program or Building the Resilience and Awareness of Metro Manila Communities to Natural Disasters and Climate Change Impacts Program to reduce the vulnerability and enhance the resilience of Metro Manila communities to the impacts of natural disasters and climate change – starting with the Taguig City Government (TCG). The Program, which is scheduled to commence mid-2012, consists of four (4) interrelated components that will be pursued with various partners under different management arrangements:

- Component 1: Risk Analysis
- Component 2: Community-Based Disaster Risk Management
- Component 3: Risk-sensitive Land Use Planning
- Component 4: Building Safer Settlements.





Report for the MDG-F 1656 Joint Programme on Strengthening the Philippines' Institutional Capacity to Adapt to Climate Change in 2012.

In policy formulation, PLANADES provided technical assistance for the Preparation of the Project Completion Report for the MDG-F 1656 Joint Programme on Strengthening the Philippines' Institutional Capacity to Adapt to Climate Change in 2012.



Capacity Building Strategy and Appropriate Tools for Adoption of the Climate Change Adaptation (CCA)- Enhanced Environmental Impact Assessment (EIA) for Environmental Compliance Certificate (ECC) Applications

The DENR Environmental Management Bureau (EMB) and the National Economic and Development Authority (NEDA) entered into a Memorandum of Agreement (MOA) last May 2010 under the Millennium Development Goals Fund 1656 Joint Programme (MDG-F 1656 JP) entitled "Strengthening the Philippines' Institutional Capacity to Adapt to Climate Change." As part of the MDGF Programme strategy for mainstreaming climate risk reduction into key national and selected local development plans and processes, the requirements under the Philippine Environmental Impact Statement System (PEISS) have been specifically identified as an entry point of considering climate change risks and formulation of climate change adaptations in planning



In cooperation with



UP Planades

TRAINING OF TRAINERS

Integrating Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) in the Philippine Environmental Impact Statement System

21-23 September 2011
Hotel Kimberly, Tagaytay



development initiatives at the project level. In line with this, EMB and NEDA engaged PLANADES to conduct and manage the Capacity Building Program in 2011.

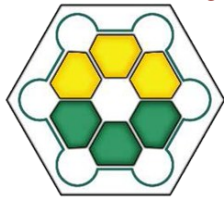
Orientation-Workshop for Provinces on Climate Change: Sectoral Impact Assessment and Planning Applications

PLANADES also provided Orientation-Workshop for representatives from Provincial Government on Climate Change. The Orientation-Workshop validated the operability of the VA tool developed for the five sectors with specific focus on the following:

- Mainstreaming framework, scope of application and entry points in the PDPFP formulation process
- Vulnerability Assessment tool and parameters
- Identify major concerns and requirements to ensure the operability of the tool for the PDPFP formulation/ updating



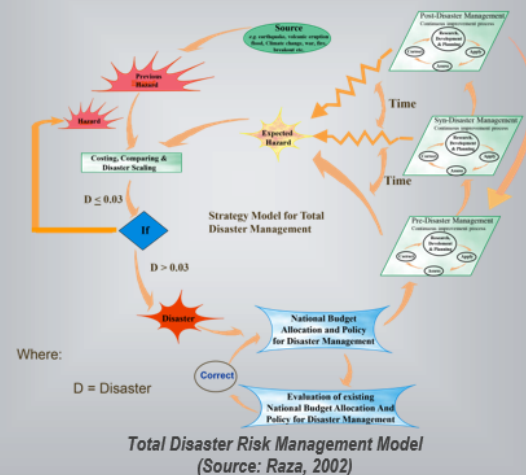
Climate Change and Disaster Risk Management Unit



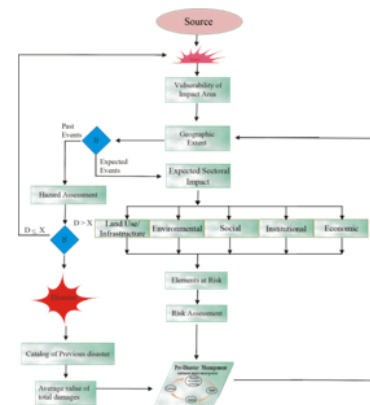
Researches and Extension

The following is a non-exhaustive list of major DRM-related projects completed by the PSBA-Manila DRM Unit.

Strategic Model: Conceptualization and Implementation of a Total Disaster Risk Management: Cherry Hills Tragedy, Antipolo City



Disaster Damage Costing: Hazard Assessment and Risk Attenuation Model (HARAM): Integration in Development Planning



Hazard Assessment and Risk Attenuation Model
(Source: Raza 2006)

Increase in Total Construction Cost when Recommended Mitigating Measures are not Followed: A Case Study of a Subdivision on Sloping Ground



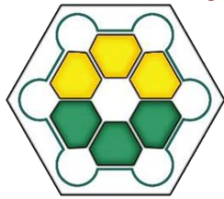
Increase in Total Construction Cost when Recommended Mitigating Measures are not Followed: A Case Study of a Subdivision on Sloping Ground
(Source: Raza, 2003)

Mainstreaming DRR in Cantonment Physical and Development / Redevelopment Planning Framework; Case Studies of Attok, Wah and Rawalpindi Cantonments

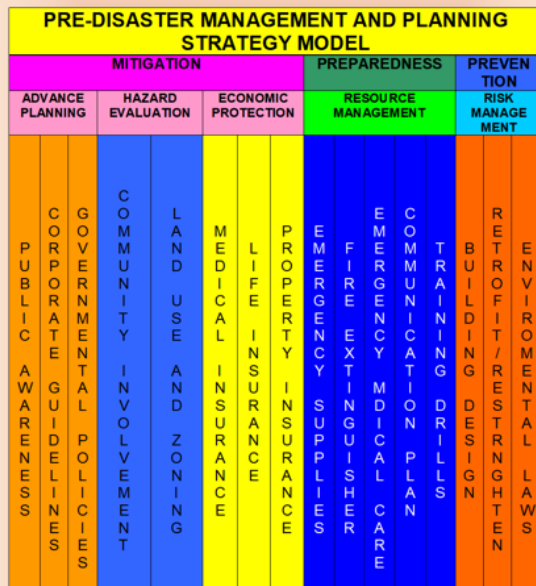


Flood Extent of Attok, Wah, and Rawalpindi Cantonments in 2010
(Source: Raza, 2011)

Climate Change and Disaster Risk Management Unit



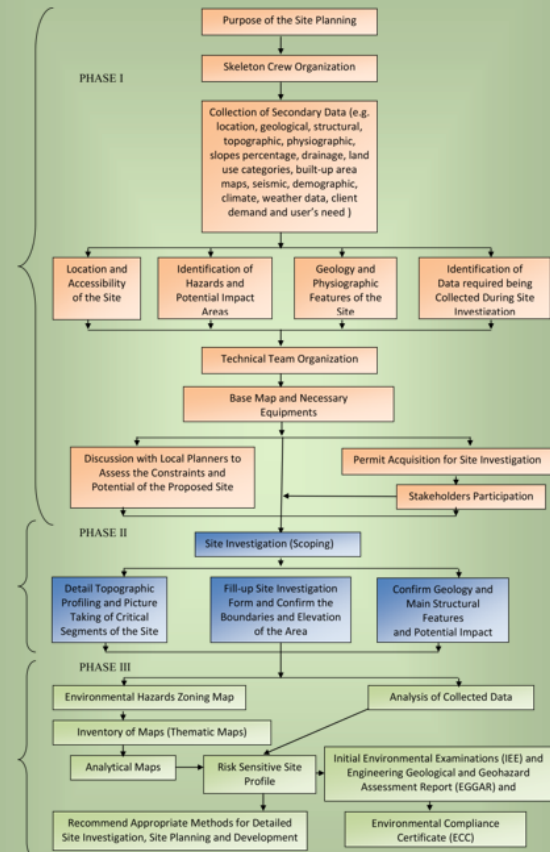
Pre-Disaster Management of Earthquake by Petron Service Stations along Marikina Fault, Master Thesis



Pre-Disaster Management and Planning Strategy Model
(Source: Cajigal, 2007)

Development and Application of a Process in Preparing Local Climate Change Action Plan (LCCAP): An Urban Sustainability Framework (USP), Quezon City, Philippines

Anatomy of Site Profiling Towards Environmental Hazards Reduction



Anatomy of Site Profiling Model
(Source: Raza, 2006)



Presentation of the study during the Sustainable Built Environment 2016: Manila Conference, "Sustainable Built Design" July 13-15, 2016 at Acacia Hotel, Alabang, Muntinlupa City, Philippines



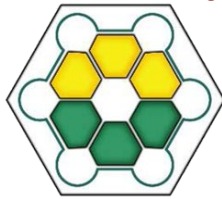
```
graph TD; A[Secondary Data] --> B[GIS Data/Shapefiles]; A --> C[Satellite Imagery/Remote Sensing]; A --> D[Paper Maps]; B --> E[GIS Preliminary Analysis and Organization of Data]; C --> E; D --> E; E --> F[Develop Methodology for Identifying and/or Modifying Coordinate System and Adjusting Thematic Maps]; F --> G[Implement Methodology]; G --> H[Adjusted Thematic Maps]; H --> I[Risk-Sensitive Land Use Planning]; H --> J[Emergency Escape Planning]; I --> K[Conclusion and Recommendation]; J --> K;
```

The flowchart illustrates the methodology for identifying and/or modifying coordinate system and adjusting thematic maps. It begins with 'Secondary Data' at the top, which branches into three parallel inputs: 'GIS Data/Shapefiles', 'Satellite Imagery/Remote Sensing', and 'Paper Maps'. These three inputs converge into a single step: 'GIS Preliminary Analysis and Organization of Data'. This step leads to 'Develop Methodology for Identifying and/or Modifying Coordinate System and Adjusting Thematic Maps', which then leads to 'Implement Methodology'. The implementation results in 'Adjusted Thematic Maps', which then branches into two parallel outputs: 'Risk-Sensitive Land Use Planning' and 'Emergency Escape Planning'. Both of these outputs converge into the final step: 'Conclusion and Recommendation'.

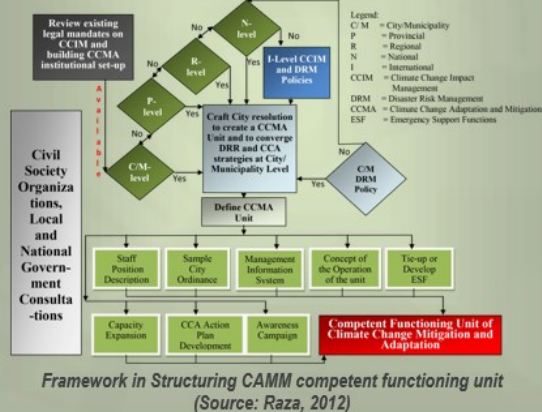
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Climate Change and Disaster Risk Management Unit



Framework in Structuring a Competent Functioning Unit of Climate Change Adaptation and Mitigation (CCAM) at City/Municipality: Emerging CCA and Disaster Risk reduction (DRR) Strategies



Strengthening Urban Governance and Capacity Building for Disaster Risk Reduction and Climate Change Adaptation: Characteristics of Quezon City Resilience



The study presented in the 12th APUR Research Symposium on Multi-Hazards held on March 7 to 8, 2016 at Kyoto University, Kyoto, Japan

2nd International Disaster Risk Management Research Colloquium 2017



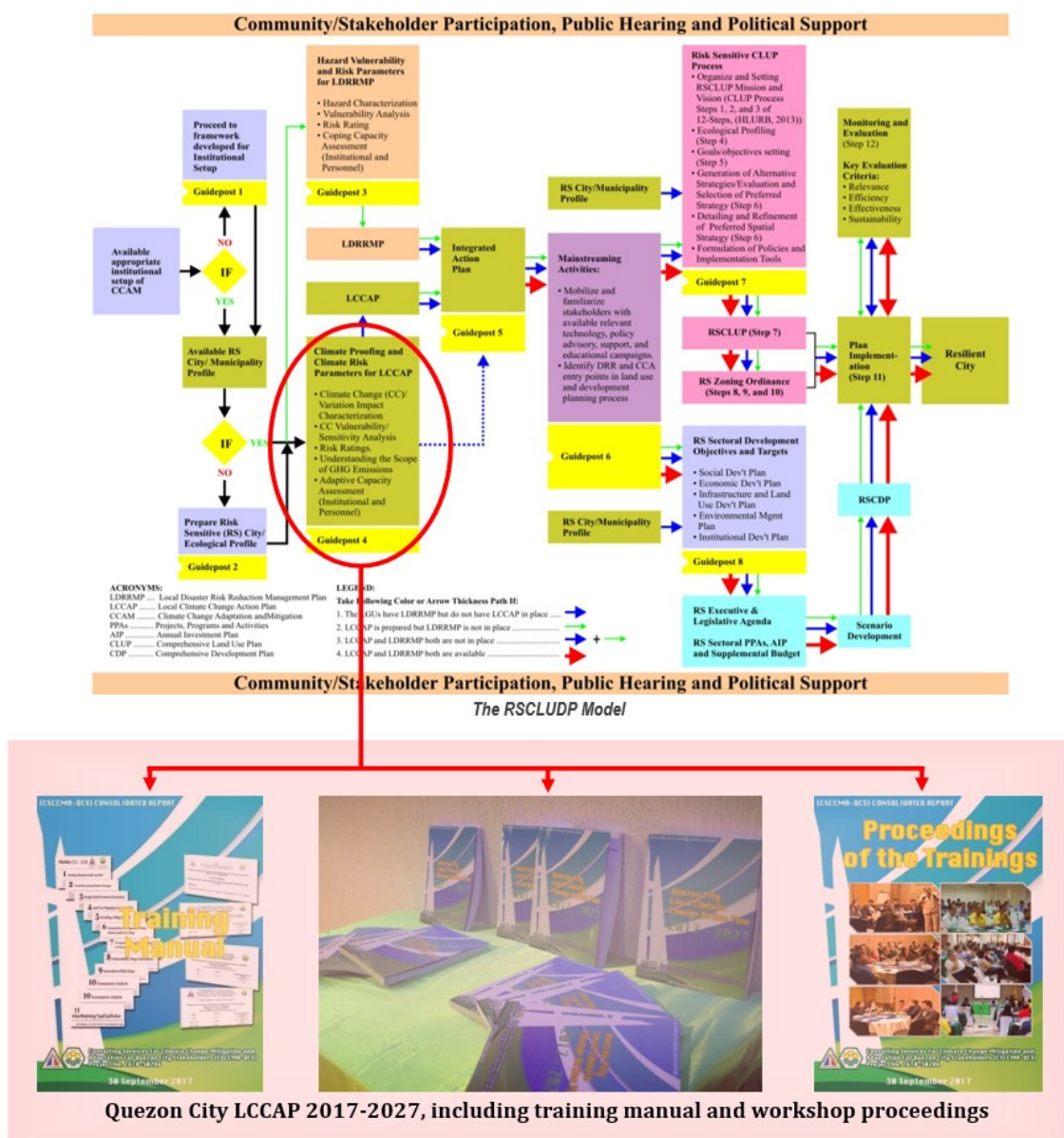
Local and international DRM resource speakers and attendees of the 2nd International Disaster Risk Management Research Colloquium 2017 at QCX Theater, Quezon City, Philippines, on October 14, 2017



Products

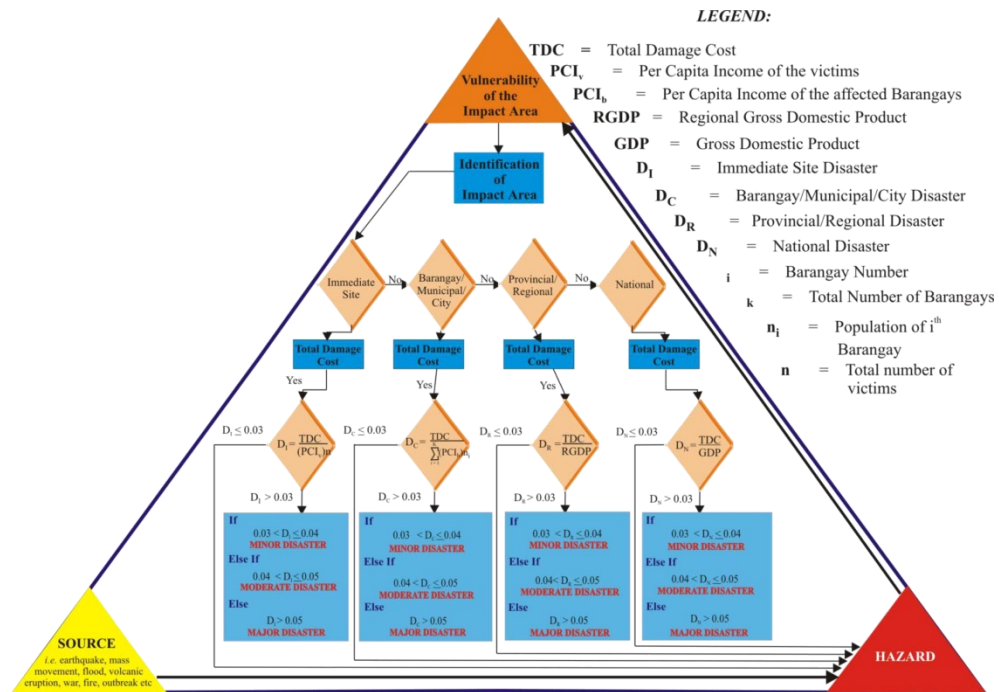
Risk-Sensitive Comprehensive Land Use and Development Planning (RSCLUDP) Model

The RSCLUDP Model has been used to create Local Climate Change Action Plans (LCCAP) and its corresponding workshops and training manuals, such as the **Quezon City Local Government Climate Change Action Plan (LCCAP) 2017-2027**





Estimation of Economic Damages Caused by Disasters: Event Impact Rapid Assessment and Disaster Scaling (EIRADS) Calculator





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