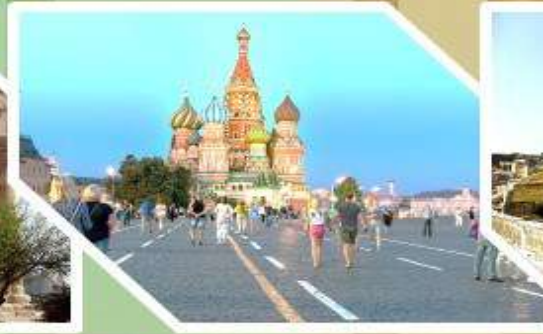


p-ISSN: 3116-5516
e-ISSN: 3116-5524



**HYBRID MODE
CONFERENCE**



INTERNATIONAL CONFERENCE

**on Nexus of Cultural, Psychosocial, Spatial Form,
Climate Change Impact, Disaster Risk,
and Sustainable Development Issues
(IC-NCPCSDS)**

*4th Floor Training Room, New Building School of
Urban and Regional Planning, University of the
Philippines, Diliman, Quezon City, Philippines*

27 September 2025



International Conference

on

the Nexus of Cultural, Psychosocial, Spatial Form, Climate Change Impact, Disaster Risk, and Sustainable Development Issues (IC-NCPCDS) is an official publication of the Planning and Development Research Foundation Inc. (PLANADES).

Tabassam Raza, MSc., MS, MBA, MAURP, DBA, Ph.D., P.E.
EDITOR IN CHIEF

Mark Anthony Morales, D.Eng.
Editor

Atty. Rizwan Yousaf
MANAGING EDITOR

EDITORIAL BOARD

Dr. Dina C. Magnaye
Prof. Dr. Shaker Mahmood Mayo
Dr. Indrajit Pal
Prof. Dr. Dietwald Gruehn

EDITORIAL CONSOLIDATORS

Ernie M. Lopez
Jennie Darang
Dianne Joy Cathyrine V. Sanchez
Clint Drew R. Strong
Roselyn Q. Flores
Erleeh Dwayne Ergina
Joan C. Padiernos
Ronwaldo T. Olivo
Noemi O. Abainza
Angel R. Baguhin

The **International Conference on the Nexus of Cultural, Psychosocial, Spatial Form, Climate Change Impact, Disaster Risk, and Sustainable Development Issues (IC-NCPCSDS)** is an official publication of the Planning and Development Research Foundation Inc. (PLANADES).

Published by: **Planning and Development Research Foundation Inc. (PLANADES)**
Address: SURP Building, E. Jacinto St., UP Diliman, Quezon City, Philippines
Contact #: 02-83325034 / +63 917-701-3833
Frequency: Annually

Philippine Copyright © 2025
Planning and Development Research Foundation Inc. (PLANADES)
Copyright of individual articles belong to the respective author/s.

INTERNATIONAL PARTNERS AND SUPPORTS:



PLANADES

Quezon City

IC-NCPSCDS Proceedings

Volume I

September 2025

TABLE OF CONTENTS

EDITORIAL BOARD.....	2
Acronyms	8
Concept note.....	11
Objectives:.....	12
Format:	12
Thematic Areas:	12
Expected Outcomes:	13
Participants:	13
Organizers:	13
Scientific Committee:.....	13
Supporting Organizations:.....	14
Executive Summary	16
Preliminaries.....	18
Welcome Remarks from Dr. Mark Anthony M. Morales, PLANADES President.....	18
Introduction of the Guest of Honor and Speaker.....	19
Message from Institutional Partner, Dr. Dina C. Magnaye, Dean, School of Urban and Regional Planning, University of the Philippines (UP SURP).....	22
Message from Institutional Partner, Dr. Indrajit Pal, Chair of Disaster Preparedness, Mitigation and Management (DPMM) at the Asian Institute of Technology (AIT), Thailand	23
Message from Institutional Partner, Atty. Rizwan Youzaf, Partner Law Offices of Manuel Quintal and Planades US Office Country Coordinator	25
Message from the Guest of Honor, H.E. Dr. Asima Rabbani, Ambassador, Pakistan Embassy, Manila, Philippines, Represented by Fareeha Khan, Investment Councilor	26
<i>Introduction of Speakers for Sessions, Dr. Engr. Tabassam Raza, Executive Director, Planades ...</i>	27
<i>SESSION 1: Climate Change through Cultural Dialogue and Social Lens.....</i>	28
Topic 1: Spatial Forms in Risk Sensitive Urban Planning: A Case Study from Pakistan.....	28

Speaker: Prof. Dr. Shaker Mahmood Mayo	28
Topic 2: Workshop on Calmness, Productivity and Resilience at Work	29
Speaker: Dr. Zahoor Ahmed.....	29
Topic 3: Significance of Research for Graduate Studies.....	30
Speaker: Dr. Dina C. Magnaye, Dean UP SURP	30
SESSION II: Risk Sensitive Land Use Planning, Cultural Heritage, and Real Estate Management.	31
Topic 1: Mandates Towards Developing CLUP, CDP, CDRA in Philippine Context	31
Speaker: Dr. Engr. Tabassam Raza, Executive Director, PLANADES	31
Topic 2: Role of US Real Estate Management Toward Livelihood Opportunities	32
Speaker: Dr. Muhammad Amad Sheikh, Law Offices of Manuel Quintal, PLANADES US Office Partner	32
Topic 3: Climate Change Related Migration in Germany – Past, Present, Future	33
Speaker: Prof. Dr. Dietwald Gruehn, TU Dortmund University, Germany	33
Topic 4: Disaster Risk, and Sustainable Development Issues: A study from Thailand/ India:	34
Speaker: Dr. Indrajit Pal, Chair, DPMM Asian Institute of Technology (AIT), Thailand.....	34
PANEL SESSION ON CLIMATE CHANGE IMPACT ON CITIES AND ADVERSE IMPACT ON BUSINESS COMMUNITY.	36
SESSION III: Climate Change Adaptation, Disaster Risk Reduction and Resilient Communities and Business Continuity.....	37
Research Topic 1: An Analysis of Whale Shark Interaction Systems in the Philippines Using Ideal Flow Networks, Game Theory, and Decision Tree Analysis	38
Presenter: Mr. John Keneth A. Mangalino, School of Urban and Regional Planning, University of the Philippines	38
Research Topic 2: Guiding Framework for the Occupational Health and Safety (OHS) Program for Solid Waste Management (SWM) Workers: Ensuring compliance with the EPR Law through ILO’s Just Transition Guidelines: Piloting Quezon City.....	39
Presenter: Ms. Athena Mari E. Son, School of Urban and Regional Planning, University of the Philippines.....	39
Research Topic 3: Remote Work Dynamics in Hybrid BPO Organizations: Analyzing Motivational Drivers of Productivity through Survey-Based Insights: A case study of WNS GLOBAL SERVICE Inc. Philippines	40
Presenter: MS. Rose Ann B. Amar, Pamantasan ng Lungsod ng Marikina (PLMAR), PHILIPPINES	40
Research Topic 4: Strengthening Business Resilience: Evaluating Flood Risk Preparedness and Continuity Strategies of Shoe Manufacturers in Marikina City.	41
Presenter: Ma. Johnifer Ann M. Fellizar, Pamantasan ng Lungsod ng Marikina (PLMAR), Philippines.....	41
Research Topic 5: Transformational Leadership and Teacher Motivation in Practice: A Case Study of Eastern Valley School, Rodriguez, Rizal.....	42



Presenter: mr. Nickerson H. Sagun & Ma. Cecilia S. Dela Merced, Pamantasan ng Lungsod ng Marikina (PLMAR), Philippines	42
Research Topic 6: Fostering Neurodiversity-Sensitive Workplaces in Retail Business: Strengthening the Strategic Framework of Mr. DIY’s Markina and Paranaque Branches in Metro Manila Stores.....	43
Presenter: MS. Jhosefa Z. Esmero, Pamantasan ng Lungsod ng Marikina (PLMAR), Philippines	43
Research Topic 7: Corporate Governance and Strategic Leadership Framework for Business Sustainability in Start-Up Coffee Shops: The Case of Marikina City, Philippines.....	44
Presenter: MS. Koge Aragon Gallardo, Pamantasan ng Lungsod ng Marikina (PLMAR), Philippines.....	44
Topic 5: A Corporate Social Responsibility Towards Business Continuity With a Case Study of Popular Pipes Group Companies Pvt. td.	46
Speaker: Mr. Shahid Iqbal.....	46
Topic 6: Overview On Zamboanga’s City Hazard Impact.....	47
Speaker: Enp. Jesssie Christopher Lapinid.....	47
SESSION IV: Sustainable Climate Change and Disaster Risk Reduction in Achieving Sustainable Development Goals, Good Governance, and Spatial Issues	48
Research Topic 1: Assessing the Effectiveness of LEED-Certified Roof Designs in Mitigating Urban Heat Islands: A GIS-Based Case Study of Lahore	49
Presenter: Asmara Muhammad Irfan, PLANADES International Fellowship Program	49
Research Topic 2: Spatio-Temporal Assessment of Agricultural Drought and Vegetation Stress in Punjab, Pakistan (2000–2024): A Remote Sensing Approach to Climate Risk Reduction.....	50
Presenter: Hania Arif, PLANADES International Fellowship Program	50
Research Topic 3: Transitioning from Jeepneys to PUV Modernization in the Philippines: Balancing Franchisee Affordability and Sustainable Urban Air Quality	51
Presenter: Willy T Cheng; Pamantasan Lungsod ng Marikina	51
Research Topic 4: Multigenerational Workforce Retention Challenges of Field Outsource Asia Inc, Cubao, Quezon City, Philippines: Uncovering Root Causes to Design Effective Engagement Strategy Framework (EESF)	52
Presenter: Camille B. Defensor, Pamantasan ng Lungsod ng Marikina.....	52
Research Topic 5: AI-Driven Social Media Marketing: Enhancing Brand Visibility, Precision Targeting, and Sustainable Competitive Advantage: A Case study of Moolk Creamery Corp, Philippines.....	53
Presenter: Marilyn V. Duclayan, Pamantasan ng Lungsod ng Marikina	53
Research Topic 6: A Comparative Study of Emerging: E-Jeepney and Traditional Jeepney Transport in Marikina: A Marketing Strategy Framework.....	54
Presenter: Christine Joy Castro Yanzon, Pamantasan ng Lungsod ng Marikina	54
SESSION V: Mainstreaming Climate Change and Related Financial Mechanism in Planning.....	56
Research Topic 1: Toward Sustainable Mobility in Lahore: Addressing Policy Gaps in Walking and Cycling Infrastructure.....	57



Presenter: Syed Muhammad Rafay, PLANADES International Fellowship Program..... 57

Research Topic 2: Developing a Holistic Framework for Flood Disaster Risk Management (DRM) – Addressing Pre-, During-, and Post-Flood Challenges Through an Integrated Approach 58

Presenter: Hafiz Muhammad Junaid Raheem, PLANADES International Fellowship Program... 58

RESEArch Topic 3: Urban Morphology and Surface Cover Analysis in the Green Infrastructure Action Plan (GIAP): The Case of Barangay U.P. Campus, Quezon City, Philippines 59

Presenter: Thess Khaz S. Raza; PLANADES International Fellowship Program 59

research Topic 4: Governance Deficits in the Context of Pakistan: Unpacking the Urban Resilience Challenge Amid Infrastructure and Climate Risks 60

Presenter: Hafiza Saba Islam; PLANADES International Fellowship Program 60

research Topic 5: Development of a Strategic Framework and its Implementation in Assessing DPWH’s 11 Flood Control Projects’ Alignment Level with the Existing QC DRRM PPAs in Barangay Bagong Silangan 61

Presenter: Engr. Brean Meg A. Walag; University of the Philippines School of Urban and Regional Planning 61

Synthesis..... 63

List of Participants..... 65

Photo Documentation 66



ACRONYMS

AI	Artificial Intelligence
AIT	Asian Institute of Technology
ANN	Artificial Neural Network
BCP	Business Continuity Plan
BPO	Business Process Outsourcing
BCM	Business Continuity Management
BCP	Business Continuity Planning
CC	Climate Change
CCA	Climate Change Adaptation
CCAM	Climate Change Adaptation and Mitigation
CCESD	Climate Change and Environmental Sustainability Department
CDRA	Climate and Disaster Risk Assessment
CEO	Chief Executive Officer
CLUP	Comprehensive Land Use Plan
CSR	Corporate Social Responsibility
CULUD	Comprehensive Urban Land Use and Development
DDRRMM	Digital Disaster Risk Reduction Maturity Model
DPMM	Disaster Preparedness, Mitigation and Management
DRR	Disaster Risk Reduction
DRRM	Disaster Risk Reduction and Management
DRRMO	Disaster and Risk Reduction Management Office
EESF	Effective Engagement Strategy Framework
FOA	Field Outsource Asia
GDP	Gross Domestic Product
GI	Green Infrastructure
GIAP	Green Infrastructure Action Plan
GIS	Geographic Information Systems
GUG	Good Urban Governance
H.E.	His Excellency
IAC	Institutional Adaptive Capacity
ICC	Institutional Coping Capacity
IC	International Conference
IC-NCPCSDS	International Conference on the Nexus of Cultural, Psychosocial, Spatial Form, Climate Change Impact, Disaster Risk, and Sustainable Development
IFN	Ideal Flow Networks
KIIs	Key Informant Interviews
LCCAP	Local Climate Change Action Plan
LGU	Local Government Unit
LLB	Legum Baccalaureus, Bachelor of Laws
LLM	Legum Magister, Master of Laws
LULC	Land Use and Land Cover
MAPP	Multi Agency Climate and Weathering Model
MNC	Mitigation and Natural Climate Solutions
MRE	Mitigation and Remediation Efforts

MSMEs	Micro, Small, And Medium Enterprises
NBS	Nature-Based Solutions
NCR	National Capital Region
NGO	Non-Government Organization
NDVI	Normalized Difference Vegetation Index
OTES	Office of Training and Extension Services
OCD	Office of the Civil Defense
OCA	Office of City Administrator
PLANADES	Planning and Development Research Foundation, Inc.
PLMAR	Pamantasan ng Lungsod ng Marikina
PPA	Program, Projects, and Activities
PPP	Public-Private Partnership
PUVMP	Public Utility Vehicle Modernization Program
QC	Quezon City
QCG	Quezon City Government
SD	Sustainable Development
SDG	Sustainable Development Goals
SURP	School of Urban and Regional Planning
SWM	Solid Waste Management
TCI	Temperature Condition Index
UET	University of Engineering Technology
UHI	Urban Heat Island
UNDRR	United Nations Office for Disaster Risk Reduction
UP	University of the Philippines
US	United States
USA	United States of America
USSDM	Urban Spatial Scenario Design Model
VHI	Vegetation Health Index
VCI	Vegetation Condition Index

Planning and Development Research Foundation Inc.

**4th Floor Training Room, New Building School of Urban and Regional
Planning, University of the Philippines, Diliman, Quezon City, Philippines**

**Title: International Conference on the Nexus of
Cultural, Psychosocial, Spatial Form, Climate
Change Impact, Disaster Risk, and Sustainable
Development Issues (IC-NCPSCDS)**

Date: 27 September 2025

Hybrid Mode

**Venue: 4th Floor Training Room, New Building School of Urban and
Regional Planning, University of the Philippines, Diliman, Quezon City,
Philippines**

CONCEPT NOTE

INTRODUCTION

The 21st century presents a complex array of interdependent challenges that demand urgent and innovative responses. From the rapid pace of urbanization to the intensifying impacts of climate change, these challenges are further compounded by entrenched cultural dynamics and psychosocial vulnerabilities. Addressing these issues in isolation is no longer feasible; instead, they call for integrated, transdisciplinary approaches that consider ecological, spatial, psychological, and cultural dimensions in tandem.

Across both urban and rural environments, climate change is exacerbating the frequency and severity of natural hazards—ranging from floods and heatwaves to droughts and wildfires—thereby increasing human exposure and vulnerability, particularly in socio-economically and environmentally marginalized areas. These vulnerabilities are often embedded in spatial configurations, such as informal settlements or poorly planned urban expansion, which are themselves shaped by longstanding cultural norms and development practices. Moreover, the psychosocial impacts of disasters—such as trauma, displacement, identity loss, and the erosion of community cohesion—highlight the importance of integrating mental health and well-being into resilience planning.

In many regions, the dual pressures of climate change and urbanization interact with fragile governance systems and deeply rooted cultural identities, influencing the ways communities perceive and respond to risk. Cultural heritage and traditional knowledge, often overlooked in formal planning processes, play a critical role in shaping community resilience and adaptive capacity. Therefore, sustainable development cannot be achieved without acknowledging the interplay between spatial form, cultural identity, and psychosocial health, particularly in contexts prone to climate-related and disaster risks.

This international conference seeks to create an inclusive platform for dialogue, learning, and knowledge exchange at the intersection of these critical domains: cultural heritage and identity, psychosocial well-being, spatial and urban form, climate change impacts, disaster risk, and pathways toward sustainability transitions. The goal is to bridge existing gaps across academic disciplines, governance structures, and community perspectives in order to foster more resilient, inclusive, and context-sensitive development strategies.

By drawing together experts from diverse fields—urban planning, psychology, climate science, anthropology, disaster risk reduction (DRR), and sustainability science—the conference will provide an opportunity to co-create solutions that reflect both local knowledge systems and global sustainability goals. It will also spotlight participatory approaches and case-based insights that can inform adaptive governance and policy design responsive to the lived realities of vulnerable populations.

OBJECTIVES:

- **To analyze** how cultural practices and identities shape and are shaped by responses to climate change and disaster risk.
- **To explore** the psychosocial dimensions of climate-related hazards, including trauma, mental health, social cohesion, and adaptive behavior.
- **To assess** how spatial planning, urban design, and land use influence vulnerability and resilience in disaster-prone areas.
- **To investigate** the compounded effects of climate change on heritage sites, human settlements, and fragile ecosystems.
- **To promote** integrated frameworks that link DRR (Disaster Risk Reduction), climate adaptation, and sustainable development through cultural and psychosocial lenses.
- **To identify** policy, educational, and community-based approaches that support local resilience and sustainability goals.

FORMAT:

The seminar will be in hybrid mode and consists of keynote addresses, panel discussions, paper presentations, and interactive sessions. Participants will have the opportunity to share their experiences, exchange ideas, and forge partnerships for collaborative action. A virtual platform will be utilized to ensure the participation of stakeholders from across the globe.

THEMATIC AREAS:

TA-1. Mainstreaming Disaster Risk Reduction and Climate Change Adaptation in Local Land Use and Development Planning

TA-2. Good Governance in Disaster Risk and Climate Change Impact Management

TA-3. Sustainable Climate Change and Disaster Risk Reduction through Cultural, Psychosocial, Spatial Issues

TA-4. Community-based Disaster Risk Reduction and Climate Change Adaptation

TA-5. Psychosocial and Architectural Design

TA-6. Business Continuity, Policy, and Strategic Framework

EXPECTED OUTCOMES:

- **A shared understanding** of the interlinkages between cultural, psychosocial, spatial, environmental, and developmental issues in climate-vulnerable contexts.
- **Innovative strategies** for integrating cultural and psychosocial dimensions into climate and disaster resilience planning.
- **Policy recommendations** for inclusive and sustainable urban/rural development, emphasizing culturally sensitive DRR and climate adaptation.
- **A repository of case studies** and best practices illustrating successful integration of cultural, spatial, and psychosocial elements in resilience-building.
- **Strengthened networks** among researchers, practitioners, policymakers, and community leaders working at the intersection of climate, culture, and development.

PARTICIPANTS:

The seminar will bring together policymakers, researchers, practitioners, and representatives from academia, government agencies, non-governmental organizations (NGOs), and the private sector. Participants will include professionals working in the fields of sustainable development, risk-sensitive urban planning, risk-informed real estate management, climate change-related migration pattern studies, and community development.

ORGANIZERS:

PLANADES in Partnership with Law Offices of Manuel Quintal

SCIENTIFIC COMMITTEE:

1. Dr. Dina Magnaye (Chair)
2. Dr. Indrajit Pal (Vice Chair)
3. Prof. Dr. Tabassam Raza (Member and Chair for Correspondents)
4. Prof. Dr. Shaker Mayo (Member)
5. Dr. Carmelita Liwag (Member)
6. Dr. Mark Morales (Member)
7. Prof. Dr. Tabassam Raza (Member)
8. Dr. Zahoor Ahmed (Member)
9. Arc. Waseem Ahmed Khan (Member)

SUPPORTING ORGANIZATIONS:

- School of Urban and Regional Planning University of the Philippines Diliman (UP SURP)
- Disaster Preparedness Mitigation and Management (DPMM), Asian Institute of Technology (AIT), Thailand
- Office of Civil Defense Regional Office National Capital Region (OCDRONCR)
- Quezon City Climate Change and Environmental Sustainability Department (CCESD)
- University of Engineering and Technology (UET), Lahore
- EVERON Consultants Limited
- UNDRR Voluntary Commitment

INTERNATIONAL CONFERENCE

on Nexus of Cultural, Psychosocial, Spatial Form, Climate Change Impact, Disaster Risk, and Sustainable Development Issues (IC-NCPSCDS)

IC-NCPSCDS SCIENTIFIC COMMITTEE



DR. DINAC. MAGRAYE

CHAIR

UP SCHOOL OF URBAN AND REGIONAL PLANNING



DR. INDRAJIT PAL

VICE-CHAIR

ASIAN INSTITUTE OF TECHNOLOGY



PROF. ENGR. TABASSAMRAZA

MEMBER AND CHAIR FOR CORRESPONDENTS
PLANNING AND DEVELOPMENT RESEARCH FOUNDATION, INC.



PROF. DR. SHAKER MAHMOOD MAYO

COMMITTEE MEMBER

UNIVERSITY OF ENGINEERING AND TECHNOLOGY, LAHORE



DR. CARMELITAR E.U. LIWAG

COMMITTEE MEMBER

UP SCHOOL OF URBAN AND REGIONAL PLANNING



DR. MARK ANTHONY MORALES

COMMITTEE MEMBER

PLANNING AND DEVELOPMENT RESEARCH FOUNDATION, INC.



DR. ZAHOOR AHMED

COMMITTEE MEMBER

AMBASSADOR OF PAKISTAN TO SPAIN



ARC. WASEEM AHMED KHAN

COMMITTEE MEMBER

EVERON CONSULTANTS LIMITED



EXECUTIVE SUMMARY

The Planning and Development Research Foundation, Inc. (PLANADES), in partnership with the Law offices of Manuel Quintal and key institutional partners such as School of Urban and Regional Planning (UP SURP), Disaster Preparedness Mitigation and Management (DPMM), Asian Institute of Technology (AIT), Thailand, Office of Civil Defense Regional Office National Capital Region (OCDRO-NCR), Quezon City Climate Change and Environmental Sustainability Department (CCESD), University of Engineering Technology (UET), Lahore, EVERON Consultants Limited and UNDRR Voluntary Commitment, successfully hosted the International Conference on the Nexus of Cultural, Psychosocial, Spatial Form, Climate Change Impact, Disaster Risk, and Sustainable Development Issues (IC-NCPSCDS). The event was held at Fourth Floor Training Room, New Building School of Urban and Regional Planning, University of the Philippines, Diliman, Quezon City, Philippines.

The International Conference seeks to create an exclusive platform for dialogue, learning, and knowledge exchange at the intersection of these critical domains: cultural heritage and identity, psychosocial well-being, spatial and urban form, climate change impacts, disaster risk, and pathways toward sustainability transitions. The goal is to bridge existing gaps across academic disciplines, governance structures, and community perspectives in order to foster more resilient, inclusive, and context-sensitive development strategies.

A welcome remark from PLANADES Office were delivered by Dr. Mark Anthony Morales, President of PLANADES followed by the introduction of the guest of honor, Quezon City Mayor Hon. Joy Belmonte represented by EnP. Ma. Bianca D. Perez, Officer-In-Charge of the Quezon City Disaster and Risk Management Office (DRRMO).

PLANADES institutional partners also welcomes the participants and speakers lead by Dr. Dina C. Magnaye, Dean, School of Urban and Regional Planning (SURP), Dr. Indrajit Pal, Chair, Disaster Preparedness Mitigation and Management, Asian Institute of Technology, Thailand, Atty. Rizwan Yousaf, Partner Law Offices of Manuel Quintal and PLANADES US Office Country Coordinator via web conferencing.

The Ambassador of the Islamic Republic of Pakistan to the Republic of Manila, Philippines, H.E. Dr. Asima Rabbani also expresses her support to the event by welcoming all the partners, speakers and participants represented by Ms. Fareeha Khan through online.

Prof. Dr. Tabassam Raza, Executive Director of PLANADES and Professional Lecturer II, UP SURP, introduces the speakers for Session 1 that will tackle a topic on Climate Change through Cultural Dialogue and Social Lens. Session 2, for Risk-Sensitive Land Use Planning, Cultural Heritage, and Real Estate Management. Session 3, for Climate Change Adaptation, Disaster Risk Reduction and Resilient Communities and Business Community. Session 4, for Sustainable Climate Change and Disaster Risk Reduction in Achieving Sustainable Development Goals, Good Governance, and Spatial Issues and Session 5, for Mainstreaming Climate Change and Related Financing Mechanism in Planning.

Session 1 speakers were Prof. Dr. Shaker Mahmood Mayo from University of Engineering and Technology (UET), Lahore. Dr. Mahmood talked over Spatial Forms in Risk Sensitive Urban Planning: A case study from Pakistan. EnP. Alberto Kimpo from Quezon City Government – Office of City Administrator (OCA) discussed the Climate Change through Cultural Dialogue in Quezon City followed by Engr. Joel Colobong from Office of the Civil Defense on

Perspective towards Climate Change and Disaster Reduction Impact. Lastly, Prof Dr. Dina C. Magnaye, Dean, UP School of Urban and Regional Planning (SURP) discussed the Significance of Research for Graduate Studies.

Session 2 speakers were Prof. Dr. Tabassam Raza, Executive Director of PLANADES, talked about the Mandates towards Developing Comprehensive Land Use Plan (CLUP), Comprehensive Development Plan (CDP), Climate and Disaster Risk Assessment (CDRA) in Philippine Context. Dr. Muhammad Amad Shiek from Law Offices of Manuel Quintal, talked about the Role of US Real Estate Management Toward Livelihood Opportunities. Prof. Dr. Dietwald Gruehn from TU Dortmund University talked about Climate Change through Cultural Heritage Dialogue Lense with a Case Study of Planning in Pakistan and Germany. Dr. Indrajit Pal from Asian Institute of Technology (AIT), Thailand, discussed about Disaster Risk, and Sustainable Development Issues - A study from Thailand and India.

In this session, PLANADES conducted a panel discussion on Climate Change Impact on Cities and Adverse Impact on Business Continuity and Communities moderated by Ms. Jenie G. Darang, HR Associate from PLANADES. Prof. Dr. Shaker Mahmood Mayo from University of Engineering and Technology (UET), Lahore, Mr. Jerome E. Ilagan, Chief Policy Research and Development Division, Climate Change Commission, Dr. Elmier Apolinario, CDRRMO for Zamboanga City and EnP. Jessie Christopher Lapinid, City Planning and Development Officer, Zamboanga City, shared their expertise in preventing climate change impact.

Session 3 focuses on Climate Change Adaptation, Disaster Risk Reduction and Resilient Communities and Business Continuity. It was facilitated by Dr. Indrajit Pal, Asian Institute of Technology (AIT), Disaster Preparedness Mitigation and Management (DPMM) Partner. Student's from Universities and other Organizations presented their initial studies for further development.

Session 4 was chaired by Prof. Dr. Mark Anthony Morales. The topic was Sustainable Climate Change and Disaster Reduction in Achieving Sustainable Development Goals, Good Governance and Spatial Issues. Student's from Universities and other Organizations also presented their initial studies for further development.

In addition to the session, PLANADES represented by its President, Dr. Mark Anthony Morales and Executive Director, Dr. Tabassam Raza entered into a memorandum of understanding with Al-Kabir Academy, Lahore, represented by Prof. Dr. Shaker Mahmood Mayo.

Lastly, Session 5 was moderated by Prof. Dr. Shaker Mahmood Mayo focusing on Mainstreaming Climate Change and Related Financial Mechanism in Planning followed by the presentation of their abstract report from the students of the universities and organizations. The seminar concluded with Prof. Dr. Mark Anthony Morales, Prof. Dr. Shaker Mahmood Mayo, Prof. Dr. Tabassam Raza, providing a synthesis of discussion and delivering the official closing remarks.

PLANADES extends its gratitude to all partners, speakers, and participants for their contributions and is looking forward to continued collaboration in addressing the challenges posed by climate change.

PRELIMINARIES

WELCOME REMARKS FROM DR. MARK ANTHONY M. MORALES, PLANADES PRESIDENT



PLANADES President Prof. Dr. Mark Anthony Morales welcoming all partners, speakers and participants

PLANADES President Prof. Dr. Mark Anthony Morales welcoming all partners, speakers and participants. Dr. Morales was deeply grateful in the presence of the representative of all partners from the Local Government of Zamboanga, The Embassy of Pakistan through online, TU Dortmund University, AIT, Students, Speakers and Participants.

Dr. Morales highlighted that this event is an opportunity for us to learn from each other and go beyond the status quo and find solutions that are out of the box and learn from local and international experts on climate change adaptation. This event is also for the younger generation to be part of an international conference in the field of research and hopefully this will be an inspiration to the student to be more active and engaged in other platform of research dissemination in Land Use.

Dr. Morales sincerely hope that this conference will be a fruitful event as we go back to our respective offices and careers.

INTRODUCTION OF THE GUEST OF HONOR AND SPEAKER

The image is a screenshot of a video conference interface. The main slide features a dark blue header with the title "INTRODUCTION OF THE GUEST OF HONOR AND SPEAKER" in yellow. Below the header is a green box containing a portrait of EnP. MA. BIANCA D. PEREZ on the left and her title "Office In-Charge, Quezon City Disaster and Risk Reduction Management Office (DRRMO)" on the right. At the bottom of the slide, there is a row of logos for international partners and supports, including the Law Offices of Manuel Quintal, PLANADES, EVERICH CONSULTANTS, DPMM (Disaster Preparedness, Mitigation and Management), and the SENDAI FRAMEWORK. On the right side of the video conference, there are two smaller video windows: the top one shows Ma. Bianca D. Perez speaking, and the bottom one shows a meeting room with several people seated around a table.

QCRRMO Officer in Charge Ma. Bianca D. Perez delivered the message from the guest of honor and speaker Hon. Mayor Joy Belmonte via web conferencing.

“On behalf of the Mayor Joy Belmonte, this important gathering that de places culture, psychosocial well-being, spatial form, climate change, disaster risk and sustainable development at the heart of one dialogue. I carry bought responsibility and privilege of speaking on behalf of the mayor who leads at the city who stands at the frontline of climate challenges.

The Philippines remains one of the most climate vulnerable nations. Facing an average of 20 tropical cyclones every year, increasing destructive floods, extreme heat and air pollution that effects millions of lives. These challenges are not just environmental, this strike at our social fabric, our cultural identity and a psychological resilience at our communities. Climate change is reshaping the world we live in. Scientist confirmed that very heavy precipitation events and this is confirmed by our local climate change action plan which mean that short intense burst of rainfall are becoming more frequent worldwide. As temperatures rise, the atmosphere holds more moisture and when storms forms, rainfall becomes heavier and more destructive. Globally, floods now affect more people than any other natural hazards. They displace families, disrupt economies and cause long term psychosocial trauma. From South Asia to Europe, Africa to the Americas, extreme rainfall has overwhelmed cities, destroyed crops and cause billions of damages. This is not only a global story, it is a local one.

On August 30, 2025, Quezon City was struck by one of the heaviest downbursts in the local history. It is a hyper localized event, a cloud burst per sum, and just three hours, 134 millimeters of rain fell. Nearly a week spurt of rainfall in just a couple of hours. At its peak, the city

experienced 121 millimeters of rain in a single hour. A rate surpassing even the hourly peak of the mass of the typhoon Ondoy in 2009 which massively flooded the country's national capital region. This overwhelmed our drainage systems, submerged major roads and flooded 36 Barangays, including areas not traditionally classified as flood prone. The Quezon City Government reported about 816 families which is equivalent to 2,600 individuals evacuated during the event and by the last day, there were reports that 267 families remained in the evacuation centers. And just today, before I came in this call for this conference, I just came from the last briefing we had for the severe tropical storm Opong which affected the city and displaced a total of over 7900 individuals or 2000 families across 44 evacuation centers.

In incidents such as this, families are displaced, businesses disrupted and health risk such as leptospirosis and dengue surge in the aftermath. These events are no longer rare, they are becoming our new normal. Ninety percent of the City's land area and ninety nine percent of the Quezon City population are exposed in the multiple hazards with more than 1.45 million people directly vulnerable to flooding. For our flood prone areas, 36 out of our 142 barangays are highly flood prone. In 2023 alone, the city recorded 2814 flooding incidents, displacing thousand families. Flood related disasters caused an estimated 2.5 billion pesos in damages in 2023 and the city mobilized an average of 4,355 trained respondents over 500 barangay volunteers and 2142 barangay official and local authorities, DRRM committees are responded and mobilize for these incidents. And by 2050, rainfall intensity in Metro Manila is projected to increase by up to 40 percent with annual damages potentially reaching to 3 to 4 billion pesos if major interventions are not pursued. These numbers are sobering, but they are not the end of our story.

In Quezon City, we are determined to act, our drainage master plan developed with the UP-Resilience Institute is guiding investments in flood detention basin, retention ponds and drainage modernization. We are implementing nature based solution, planting thousands of trees under the one million trees program, cleaning school yards through the Oasis Program and reopening La Mesa Eco Park as bio diversity hub.

On waste reduction, programs like "Trash to Cashback" in Quezon City basuheros have recovered over 440 thousand kilograms of recyclables turning waste into resources and reducing flood causing clogging. Our air quality management plan with forty sensors ensures science driven policies for clean air and bokashi composting in circular economy initiative reduce greenhouse emission.

And just last year, Quezon City earned an A rating for the carbon disclosure project placing us only among into one hundred nineteen cities worldwide recognized for climate leadership.

My colleague and friends, resilience is not built on infrastructure alone, it is built on people, it is cultural, psychosocial and human. It is about children breathing cleaner air, families living in safer communities and cities since knowing that they are part of the solution. This is why our work has been recognized globally. From the UN environmental program naming Mayor Joy Belmonte as champion of the earth in 2023 to recognition from C4 Cities from Bloomberg



philanthropist. Yet the measure of success is not plague of awards, it is weather the communities stand disaster, recover with dignity and thrive with hope.

As we gather here, let us be reminded that climate action is not just about cutting emission. It is about integrating culture, psychology, planning governance and science into holistic response.

In Quezon City, our vision is clear, to be a city that not just endure climate impact but rises stronger from them. To achieve this, we need a stronger partnership with government, academia, the private sector and most importantly with communities themselves. Let me emphasize this, climate action is not just environmental, it is cultural, it is psychosocial, it is human. It is building communities where people not only survive disaster like flood like we have gone through but thrive with dignity, identity and hope

On behalf of our Mayor Joy Belmonte of Quezon City, I welcome you all to this important dialogue. May this conference inspire more collaborations, more innovations and more solidarity in building a sustainable and resilient future. Maraming salamat po at mabuhay tayong lahat.”



MESSAGE FROM INSTITUTIONAL PARTNER, DR. DINA C. MAGNAYE, DEAN, SCHOOL OF URBAN AND REGIONAL PLANNING, UNIVERSITY OF THE PHILIPPINES (UP SURP)



UP School of Urban and Regional Planning Dean Dina C. Magnaye, delivered her message as one of the institutional partners in International Conference on the Nexus of Cultural, Psychosocial, Spatial Form, Climate Change Impact, Disaster Risk, and Sustainable Development Issues (IC-NCPSCDS).

Dean Dina was honored to welcome all the participants, speakers and guest in the International Conference on the Nexus of Cultural, Psychosocial, Spatial Form, Climate Change Impact, Disaster Risk, and Sustainable Development Issues as their presence here demonstrate the power of collaboration and contribution are valuable in fostering deeper understanding innovative solutions and stronger partnership across diverse fields and communities.

Dean Dina encourage everyone to engage actively, exchange dialogue, and explore opportunities for collaboration. Let us sees these opportunities to learn from each other, challenge conventional approaches and charge new pathways for a more sustainable future.

MESSAGE FROM INSTITUTIONAL PARTNER, DR. INDRAJIT PAL, CHAIR OF DISASTER PREPAREDNESS, MITIGATION AND MANAGEMENT (DPMM) AT THE ASIAN INSTITUTE OF TECHNOLOGY (AIT), THAILAND

MESSAGE FROM INSTITUTIONAL PARTNER

DR. INDRAJIT PAL
Chair
Disaster Preparedness Mitigation and Management (DPMM),
Asian Institute of Technology (AIT), Thailand

Dr. Indrajit Pal, Chair of Disaster Preparedness Mitigation and Management, Asian Institute of Technology, Thailand delivered a welcoming remark.

As part of DPMM at AIT, Dr. Pal, Chair of Disaster Preparedness, Mitigation, and Management (DPMM) at the Asian Institute of Technology (AIT), Thailand welcomed the participants, speakers and organizer in the event.

He informed that due to recent disaster happening recently, they are doubled up a lot of research in the region which will be beneficial for the community, how can make themselves resilience for the different climate hazards.

Dr. Pal appreciated the initiative from PLANADES to join hands in this International Conference on the Nexus of Cultural, Psychosocial, Spatial Form, Climate Change Impact, Disaster Risk, and Sustainable Development Issues (IC-NCPSCDS) and expecting a good success in this event.

Dr. Pal, emphasizes the importance of building urban resilience to climate change by highlighting the value of resilient infrastructure investments and effective disaster risk management in mitigating impacts on Asia's urban centers.

Dr. Pal discusses the need for substantial investments in infrastructure in developing countries, citing a World Bank estimate that every \$1 invested in resilient infrastructure yields \$4 in socioeconomic benefits.

He underscores the vulnerabilities in critical infrastructure systems due to gaps in planning, construction, operation, and governance, particularly in the face of annual disaster impacts amounting to more than \$18 billion in transport and power infrastructure.

Dr. Pal also emphasizes the significance of scenario-based assessments for risk modeling, showcasing the cascading impacts of disasters across multiple sectors and the criticality of urban critical infrastructure systems and their interdependencies.

Through modeling and simulation, meaningful policy interventions can be developed for long-term development, addressing the complexities of urban systems and their interactions to better prepare for and mitigate the impacts of climate change-induced disasters.

MESSAGE FROM INSTITUTIONAL PARTNER, ATTY. RIZWAN YOUZAF, PARTNER LAW OFFICES OF MANUEL QUINTAL AND PLANADES US OFFICE COUNTRY COORDINATOR



Atty. Rizwan Youzaf, Partner Law Offices of Manuel Quintal and PLANADES US Office Country Coordinator delivered a welcoming remark.

Atty. Youzaf said that it is an honor to speak in this importance conference at University of the Philippines. He wanted to share how we can work together to bend a stronger and more resilience by collecting culture, mental health and city planning in defense of climate change and disaster. The world is changing fast as we all know and climate change rinse more flood typhoon and wildfire setting places like the Philippines, other countries as well as America.

In the Philippines, communities feel typhoons every year, it's happening all the time. People lost homes, feeling scared. In the US, hurricanes, wildfire cause similar things. These challenges hurt people. Their belongings are lost. That's why we need a solutions that cared for the people and their birth places as Atty. Youzaf emphasizes. First is the culture, he echoed that in the Philippines, they have "Bayanihan" where neighbors help each other after disaster. This spilled hope and strength. In the USA, we see themselves to protect historic places while making them ready for the climate change.

Planades believes that culture is the key to reliance buy a presenting tradition and local knowledge, we can create solutions where people trust and follow. Second is the mental health matter, disaster causes stress, feeling sadness. He echoed to protect the mental health in the event of disasters and climate change.



MESSAGE FROM THE GUEST OF HONOR, H.E. DR. ASIMA RABBANI, AMBASSADOR, PAKISTAN EMBASSY, MANILA, PHILIPPINES, REPRESENTED BY FAREEHA KHAN, INVESTMENT COUNCILOR



Investment Councilor from Embassy of Pakistan, Manila, Ms. Fareeha Khan delivered the message from the guest of honor H.E. Dr. Asima Rabbani, Ambassador, Pakistan Embassy Manila

“It is an honor to extend my warmest greeting to all the participants of the International Conference on the International Conference on the Nexus of Cultural, Psychosocial, Spatial Form, Climate Change Impact, Disaster Risk, and Sustainable Development Issues (IC-NCPSCDS). This gathering is timely and meaningful platform that brings together scholars, policy makers, and practitioners to explore innovative solutions to the present challenges of climate change and disaster risk reduction.

Pakistan like the Philippines is on the frontline of climate vulnerabilities. Experiencing the current flood, drought, and extreme weather events. These challenges remind us that collaborative research, knowledge exchange are vital for building resilient and sustainable communities. I deeply appreciate first the planners, the University of the Philippines School of Urban and Regional Planning and all the partners institution for hosting this significant event. I am confident that the discussion and research here today will foster stronger global collaboration and generate achievable solution that contribute to our common goal of sustainable development and climate resilience.

In behalf of people of the government and people of Pakistan, I wish the conference has great success and all the participants have a fruitful and inspiring experience.”



INTRODUCTION OF SPEAKERS FOR SESSIONS, DR. ENGR. TABASSAM RAZA, EXECUTIVE DIRECTOR, PLANADES



Dr. Engr. Tabassam Raza, Executive Director, PLANADES and Professional Lecturer of UP SURP as he introduces the speakers for the sessions

Prof. Dr. Tabassam Raza, Executive Director of PLANADES and Professional Lecturer II, UP SURP, introduces the speakers for:

Session 1 that will tackle a topic on Climate Change through Cultural Dialogue and Social Lens.

Session 2, for Risk-Sensitive Land Use Planning, Cultural Heritage, and Real Estate Management.

Session 3, for Climate Change Adaptation, Disaster Risk Reduction and Resilient Communities and Business Community.

Session 4, for Sustainable Climate Change and Disaster Risk Reduction in Achieving Sustainable Development Goals, Good Governance, and Spatial Issues and

Session 5, for Mainstreaming Climate Change and Related Financing Mechanism in Planning.

SESSION 1: CLIMATE CHANGE THROUGH CULTURAL DIALOGUE AND SOCIAL LENS

TOPIC 1: SPATIAL FORMS IN RISK SENSITIVE URBAN PLANNING: A CASE STUDY FROM PAKISTAN

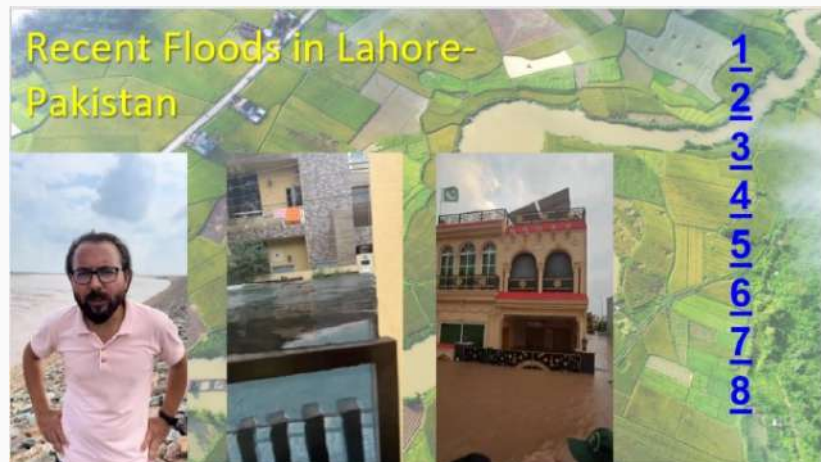
SPEAKER: PROF. DR. SHAKER MAHMOOD MAYO



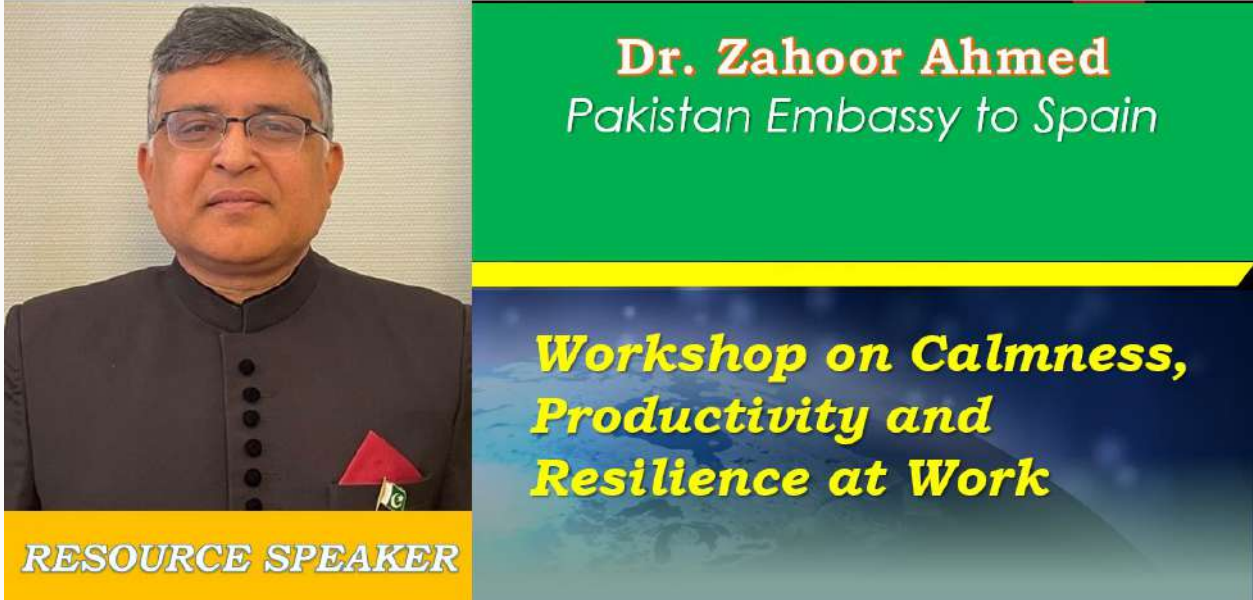
Prof. Dr. Shaker Mahmood from University of Engineering and Technology (UET) speaks of Spatial Forms in Risk Sensitive Urban Planning and Development with a case study from Pakistan.

Dr. Mayo emphasizes Risk Sensitive Urban Planning starting with Vibrant Environment, Sustainability, Preserved Heritage, Balanced Economy, Exclusivity, Safety and Resilience.

With a recent flood in Lahore, Pakistan, Dr. Mayo highlights how well urban planning – planned urban forms such as appropriate zoning, open spaces, and resilient building layouts—can mitigate the impacts of disasters. The report concludes with recommendations for policymakers and planners to adopt data-driven, risk-aware urban strategies to create safer and more sustainable cities.



TOPIC 2: WORKSHOP ON CALMNESS, PRODUCTIVITY AND RESILIENCE AT WORK
SPEAKER: DR. ZAHOOR AHMED



Dr. Zahoor Ahmed, Pakistan Embassy to Spain as H.E shared the Calmness, Productivity and Resilience at Work. He developed workshops for well-being of students, officers and corporate sector.

Dr. Ahmed reported that the study from Deloitte Global Millennial Survey stated that young people in particular are struggling, with a staggering **48% of Gen Z and 44% of Millennials** reporting that they feel stressed most or all of the time.

This not only impacts the communities in which we live, but the places that we work. These rising numbers, coupled with the costs associated with lost productivity, highlight the need for urgent action by business leaders.

Dr. Ahmed also discussed the important of wellbeing. First, it adds years to your life, Second, it will be associated with positive health behaviors in adult and children, also improve recovery from illness and lastly, may ultimately reduce the healthcare problem.

TOPIC 3: SIGNIFICANCE OF RESEARCH FOR GRADUATE STUDIES

SPEAKER: DR. DINA C. MAGNAYE, DEAN UP SURP



Prof. Dr. Dina Magnaye, Dean UP SURP discussing the Significance of Research for Graduate Studies.

Dean Magnaye emphasizes that research is the cornerstone of graduate education. It enhances critical thinking, analytical skills, and evidence-based decision making and provides students with the ability to address real world problems through academic inquiry.

As she continues, graduate research trains students to become experts by going beyond existing knowledge to create new insights within their field. It fosters independent, critical thought and the ability to assess and innovate by exploring real-world questions rather than just memorizing content. Research provides a platform for students to apply theoretical knowledge to practical problems, honing their ability to find innovative solutions.

Dean Magnaye, also empowers students to address real-world problems through scholarly **inquiry** and innovation. By fostering curiosity, discipline, and practical application of knowledge, research strengthens the bridge between theory and practice, ensuring that graduate education remains relevant, transformative, and impactful in society.

SESSION II: RISK SENSITIVE LAND USE PLANNING, CULTURAL HERITAGE, AND REAL ESTATE MANAGEMENT.

**TOPIC 1: MANDATES TOWARDS DEVELOPING CLUP, CDP, CDRA IN PHILIPPINE CONTEXT
SPEAKER: DR. ENGR. TABASSAM RAZA, EXECUTIVE DIRECTOR, PLANADES**



Dr. Tabassam Raza, Executive Director of PLANADES and Professional Lecturer from UP SURP discussing the Mandates towards developing CLUP, CDP, CDRA in Philippine Context

Dr. Raza explained that the local government units shall, in comply with existing law, continue to prepare their respective Comprehensive Land Use Plans enacted through zoning ordinances which shall be the primary and dominant bases for the future use of the land resources. It also mentioned that the Congress shall give highest priority to the enactment of measures that protect and enhance the right of all the people to human dignity, reduce social, economic, and political inequalities, and remove cultural inequalities by equitably diffusing wealth and political power for common good as mandated in the 1987 constitution.

TOPIC 2: ROLE OF US REAL ESTATE MANAGEMENT TOWARD LIVELIHOOD OPPORTUNITIES

SPEAKER: DR. MUHAMMAD AMAD SHEIKH, LAW OFFICES OF MANUEL QUINTAL, PLANADES US OFFICE PARTNER

The screenshot shows a Zoom meeting interface. The main content is a presentation slide titled "Economic Spillovers". The slide lists several key statistics:

- Each home sale adds ~\$58k to GDP
- 2 home sales = 1 new job
- 100 new homes = 394 local jobs, \$29M income
- National rental vacancy rate: 7.0% in Q2 2025
- Homeowner vacancy rate: 1.1% in Q2 2025
- Housing units updated to 2024 with county-level growth rates

A bar chart on the slide shows the following data points:

Category	Value
National vacancy (%)	7.0
Homeowner vacancy (%)	1.1
Remodels spend 2024 (\$B)	~500
Remodels spend 2025 (\$B)	~500
Foreclosure filings Aug 2025 (K)	~100
New home sales Aug 2025 (K SAAR)	~800

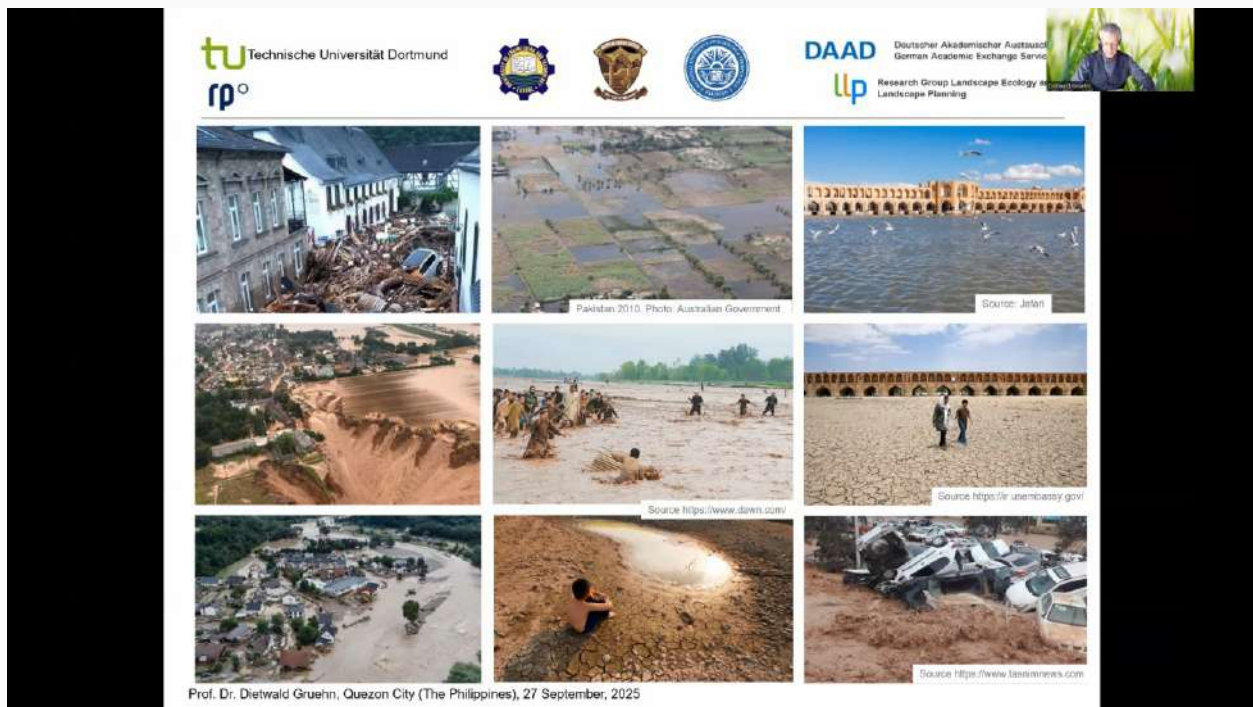
The video feed on the right shows Dr. Muhammad Amad Sheik, a man in a suit and glasses, speaking. The Zoom interface includes a toolbar at the bottom with options like Audio, Video, Participants, Chat, React, Raise hand, Share, Host tools, AI Companion, Apps, Pause/stop recording, Meeting info, Notes, More, and End. The system tray at the bottom shows the date and time as 11:20 am on 27/09/2025.

Dr. Muhammad Amad Sheik, Partner Law Office of Manuel Quintal (PLANADES US) speaks of Role of US Real Estate Management Toward Livelihood Opportunities.

Dr. Muhammad Amad Sheik, Partner Law Office of Manuel Quintal (PLANADES US) speaks of Role of US Real Estate Management Toward Livelihood Opportunities. He reported that real estate management plays a pivotal role in the U.S. economy and society. It serves as a bridge to livelihood opportunities for millions as 14% of U.S. GDP from real estate and 2.6 million plus employed directly in industry.

Some of the Challenges and Risks of the US Real Estate Management as elaborated by Dr. Sheik are rental vacancy at 7.0 % versus homeowner vacancy at 1.1 % as of second quarter of 2025 and One in every 3,987 housing units had a foreclosure filing in August, 2025. To address the issue, Dr. Sheik suggest the policy and practice levers to train property managers, and building staff, must align codes and insurance with climate risks. In addition, he advice to keep homes in use, keep people at work and cut risk.

**TOPIC 3: CLIMATE CHANGE RELATED MIGRATION IN GERMANY – PAST, PRESENT, FUTURE
SPEAKER: PROF. DR. DIETWALD GRUEHN, TU DORTMUND UNIVERSITY, GERMANY**



Prof. Dr. Dietwald Gruehn from TU Dortmund, Germany, explores the historical, present, and future trends of climate change-related migration in Germany, noting significant past events such as the Migration Period and medieval flooding. He emphasizes that contemporary climate-induced migration remains minimal but could increase due to severe impacts in nearby regions like Africa and the Middle East.

Dr. Gruehn highlights the critical role of spatial planning in adaptation, advocating for strategies like protecting and expanding natural water-retentive landscapes, revitalizing river courses, implementing urban cooling measures, and enforcing land use changes in risk zones to enhance resilience and sustainability. He stresses the essential role of spatial planning in mitigating and adapting to these future risks.

Dr. Gruehn advocates for proactive strategies, including protecting and expanding natural water-retentive landscapes, revitalizing river systems, introducing urban cooling infrastructures, and restricting land use in high-risk zones. These measures, he argues, are crucial for enhancing climate resilience, ecological balance, and sustainable urban development in Germany.

TOPIC 4: DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES: A STUDY FROM THAILAND/ INDIA:

SPEAKER: DR. INDRAJIT PAL, CHAIR, DPMM ASIAN INSTITUTE OF TECHNOLOGY (AIT), THAILAND



Dr. Indrajit Pal, Chair, DPMM Asian Institute of Technology (AIT), Thailand

Dr. Indrajit Pal’s research examines the intersection of disaster risk reduction (DRR) and sustainable development (SD) in Thailand and India—two countries highly exposed to floods, cyclones, earthquakes, and climate-induced hazards. The study emphasizes that Disaster Risk Reduction, Climate Change Adaptation and Sustainable Development must become common goals across all global, regional and national development frameworks.

Dr. Pal discussed that Sustainable Development Goals (SDG) are set of 17 global goals that aim to end poverty, protect the planet and ensure peace and prosperity for all by 2030. He also pointed out the importance of sustainable development planning and disaster risk management.

Dr. Pal advocates for community-based approaches, capacity building, and the inclusion of local knowledge in disaster governance. He said that remote sensing through robust Land Use and Land cover classification method (Object Oriented) can be applied to assess the freshwater dynamics of the highly populated Deltaic regions (Mekong, Red, GBM) where there is a high stress on fresh water resources. He also discussed the multi-dimensional vulnerability analysis of critical infrastructure of Andaman Sea Cost of Thailand. His study suggest that Artificial Neural Network (ANN) can be efficiently employed to calculate the overall coastal vulnerability by integrating InVEST (Integrated Valuation of Ecosystem Services and Trade-Offs) and DSAS models

Ultimately, the study concludes that resilience and sustainability must go hand in hand—development initiatives should not only aim for economic growth but also ensure social equity, environmental balance, and disaster resilience and more sustainable future in both Thailand and India.

PANEL SESSION ON CLIMATE CHANGE IMPACT ON CITIES AND ADVERSE IMPACT ON BUSINESS COMMUNITY.



Standing - Ms. Jenie G. Darang, Moderator, Accounting and HR Associate, PLANADES, Sitting from left to right - EnP. Jessie Christopher Lapinid, CPDO Zamboanga City, Mr. Jerome E. Ilagan, Chief Policy Research and Development Division, Climate Change Commission, Dr. Shaker Mahmood Mayo, Chair, City and Regional Planning Department, University of Engineering and Technology (UET), Lahore, Dr. Elmier B. Apolinario, Head, Zamboanga City Disaster Risk Reduction Management Office (CDRRMO).

The discussion focused on the growing vulnerability of cities to climate-related hazards such as flooding, heatwaves, and sea-level rise, and how these pose significant threats to local economies and business continuity. Panelists shared perspectives on risk-sensitive urban planning, climate governance, and the integration of scientific research with policy implementation.

Key points included the need for stronger collaboration between government, academia, and the private sector, investment in resilient infrastructure, and adaptive business strategies to withstand climate shocks. The session concluded by emphasizing that urban resilience and sustainable economic growth depend on coordinated efforts to mainstream climate adaptation and disaster risk reduction across all levels of planning and development.

SESSION III: CLIMATE CHANGE ADAPTATION, DISASTER RISK REDUCTION AND RESILIENT COMMUNITIES AND BUSINESS CONTINUITY

**SESSION - III
(13:50 – 15:20 PM)**

**Climate Change
Adaptation, Disaster
Risk Reduction and
Resilient
Communities,
Business Continuity**



**Chair of the Session III
Dr. Indrajit Pal, AIT DPMM
(Institutional Partner)**



INTERNATIONAL PARTNERS AND SUPPORTS



INTERNATIONAL PARTNERS AND SUPPORTS



RESEARCH TOPIC 1: AN ANALYSIS OF WHALE SHARK INTERACTION SYSTEMS IN THE PHILIPPINES USING IDEAL FLOW NETWORKS, GAME THEORY, AND DECISION TREE ANALYSIS
PRESENTER: MR. JOHN KENETH A. MANGALINO, SCHOOL OF URBAN AND REGIONAL

INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACTS,
DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSDS)
27 September 2025

PLANADES
SENDI FRAMEWORK
DPMM
DOL
DPS

An Analysis of Whale Shark Interaction Systems in the Philippines Using Ideal Flow Network Theory, Game Theory, and Decision Tree Analysis

Granada, Rey Gabriel A.
Jimenez, Lei Kryzel A.
Mangalino, John Keneth A.

School of Urban and Regional Planning
University of the Philippines



Donsol and Oslob, two fishing villages in the Philippines transformed by the local ecotourism boom, have contrasting approaches to their whale shark watching industries. The study employs transportation planning tools and techniques, specifically Ideal Flow Networks (IFN) (Teknomo, 2024), Game Theory (Mosetti, 2006), and Decision Tree Analysis (Greenwood and White, 2006), to assess stakeholder dynamics among local fishermen, tourists, tour boat operators, and industry regulators, propose policy interventions through strategic decision-making, and explore livelihood alternatives for sustainable growth. IFN reveals confirmatory evidence that Donsol’s model features more balanced stakeholder influence and stronger governance feedback loops, while Oslob’s provisioning-based system exacerbates ecological risks and disrupts natural shark behavior and migratory patterns. Simulations using Game Theory illustrate the most sustainable outcome, achieved through a limited-interaction policy which bans shark feeding and enforces stricter regulations, and aligning with both Nash Equilibrium and Pareto Efficiency. Decision Tree Analysis investigates viable livelihood alternatives for Oslob, highlighting agri-tourism and seaweed farming as economically and ecologically sound options. Findings emphasize that while whale shark tourism provides vital income, unregulated practices compromise long-term viability. The study recommends limiting interactions, strengthening LGU governance, prohibiting provisioning, and developing diversified livelihoods. These strategies balance ecological integrity with community welfare and offer a replicable model for ethical wildlife tourism.

Keywords: Local Ecotourism, Whale Shark Tourism, Wildlife Tourism

framework demonstrates how just transition principles can be operationalized in local SWM systems, it contributes to designing a model that local governments and private sector members can adapt to improve safe working conditions of SWM workers, while ensuring strong compliance with the EPR law.

Keywords: Solid waste management, Occupational safety and health, Waste workers, Extended Producers Responsibility

RESEARCH TOPIC 3: REMOTE WORK DYNAMICS IN HYBRID BPO ORGANIZATIONS: ANALYZING MOTIVATIONAL DRIVERS OF PRODUCTIVITY THROUGH SURVEY-BASED INSIGHTS: A CASE STUDY OF WNS GLOBAL SERVICE INC. PHILIPPINES

PRESENTER: MS. ROSE ANN B. AMAR, PAMANTASAN NG LUNGSOD NG MARIKINA (PLMAR), PHILIPPINES



Remote Work Dynamics in Hybrid BPO Organizations: Analyzing Motivational Drivers of Productivity through Survey-Based Insights: A case study of WNS Global Service Inc., Philippines



Authors: *Tabassam Raza, Rose Ann B. Amar, Klariza J. Mae Bachini, Jhoana Patricia A. Banalnal, Reggie A. Conde, Ibrahim O. Gavaran, Franklin E. Ayuson, Zahoor Ahmad*

Presenting Authors: Rose Ann B. Amar (MBA Class)
Institution: Pamantasan ng Lungsod ng Marikina (PLMAR)

ABSTRACT

Globally, remote and hybrid work models have reshaped organizational structures, underscoring the importance of understanding motivational drivers that sustain productivity. In the Philippines, the case of WNS Global Service Inc. a major player in the business process outsourcing (BPO) sector, illustrates how these dynamics unfold in an industry that serves as both a cornerstone of the national economy and a critical contributor to global service delivery. While remote work offers benefits such as greater autonomy and improved work-life balance, it also presents challenges, including reduced supervision, social isolation, communication gaps, and blurred boundaries between personal and professional life. In hybrid BPO settings, where on-site and remote operations intersect, these issues are magnified, requiring managers to adopt motivational strategies tailored to a diverse, multi-location workforce. This study examines the

motivational drivers that influence productivity among employees in hybrid BPO organizations, piloting WNS Global Service Inc. in Quezon City. Using survey-based data, it investigates factors such as autonomy, social connectedness, and organizational support, analyzing their impact on motivation, engagement, and performance. The research further seeks to identify equitable and effective approaches to maintain consistent productivity across both remote and on-site teams. By contributing to the growing discourse on hybrid workforce management, this study provides actionable insights for BPO leaders. Findings are expected to inform the design of motivational frameworks that align employee well-being with organizational objectives, ensuring sustainable productivity in the evolving hybrid work landscape.

Keywords: Business Process Outsourcing, Motivational Frameworks, Sustainable Productivity

RESEARCH TOPIC 4: STRENGTHENING BUSINESS RESILIENCE: EVALUATING FLOOD RISK PREPAREDNESS AND CONTINUITY STRATEGIES OF SHOE MANUFACTURERS IN MARIKINA CITY.

PRESENTER: MA. JOHNEFER ANN M. FELLIZAR, PAMANTASAN NG LUNGSOD NG MARIKINA (PLMAR), PHILIPPINES

INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT, DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSDS)
27 September 2025

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

DPMM
Disaster Preparedness, Mitigation and Management

PLANADES

Strengthening Business Resilience: Evaluating Flood Risk Preparedness and Continuity Strategies of Shoe Manufacturers in Marikina City

AUTHORS: Tabassam Raza^{1,2&3}, Ma. Johnefer Ann Felizar¹, Camille Dela Merced¹, Rose Anne Faye C. Mallare¹, Elieza May Cruz¹, Karen V. Guballa¹, Danielle Cherryne L. Rivera¹, Muhammad Amad Sheikh³, Franklin E. Ayuson¹, Mark Anthony M. Morales^{2&3}

¹Pamantasan ng Lungsod ng Marikina (PLMAR)
²School of Urban and Regional Planning, University of the Philippines, Diliman Quezon City (UP SURP)
³Planning and Development Research Foundation, In. (PLANADES)
⁴PLANADES America

ABSTRACT

Climate-induced flooding has become a critical global threat to business continuity, increasingly disrupting supply chains and undermining local economies. In the Philippines, Marikina City, widely recognized as the nation’s shoe capital, It presents a compelling case for examining how small and medium manufacturers address flood risk and implement continuity strategies. The city’s geographic location along the Marikina River, coupled with rapid and often uncoordinated urbanization, has intensified flood vulnerability. Inadequate land use management and drainage

INTERNATIONAL PARTNERS AND SUPPORTS:

Law Offices of Manuel Quintal | PLANADES | EVERICH CONSULTANTS | DPMM (Disaster Preparedness, Mitigation and Management) | SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030

planning have exacerbated surface runoff, overwhelming existing control systems and causing recurrent disruptions to operations, revenues, and livelihoods. Anchored in the Sendai Framework for Disaster Risk Reduction (2015–2030), this study underscores the critical role of business continuity management (BCM) and, in particular, Business Continuity Planning (BCP) in sustaining organizational resilience. Using a qualitative exploratory design and questionnaire-based assessment, the research evaluates the preparedness of Marikina’s shoe manufacturers and identifies gaps in current continuity practices. Findings aim to inform strategies that strengthen disaster resilience through enhanced contingency planning, employee training, collaborative networks, and, where necessary, strategic relocation.

Keywords: Business Continuity, Land Use Management, Business Continuity Management, Business Continuity Planning

RESEARCH TOPIC 5: TRANSFORMATIONAL LEADERSHIP AND TEACHER MOTIVATION IN PRACTICE: A CASE STUDY OF EASTERN VALLEY SCHOOL, RODRIGUEZ, RIZAL.

PRESENTER: MR. NICKERSON H. SAGUN & MA. CECILIA S. DELA MERCED, PAMANTASAN NG LUNGSOD NG MARIKINA (PLMAR), PHILIPPINES

The banner features a light green background with a dark green wavy border at the bottom. At the top left, it includes the PLANADES AMERICA logo and the text 'INTERNATIONAL CONFERENCE ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT, DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSDS) 27 September 2025'. To the right are logos for the Sendai Framework, ASEAN, and DPMM. The central text reads 'Transformational Leadership and Teacher Motivation in Practice: A Case Study of Eastern Valley School, Rodriguez, Rizal'. Below this is a photograph of two presenters, a man and a woman, at a podium. The bottom section lists authors: Tabassam Raza, Ma. Cecilia S. Dela Merced, Edelen P. Freo, Joshua M. Habagat, Franchaisen Malto, Nickerson H. Sagun, Franklin E. Ayuso, Mark Anthony M. Morales, Zahoor Ahmad, and the presenting author, Nickerson H. Sagun.

ABSTRACT

Transformational leadership is globally recognized as a catalyst for teacher motivation, with profound implications for educational quality and student outcomes. In the Philippines, Eastern Valley School in Rodriguez, Rizal, provides a valuable context to examine how such leadership practices translate into daily teaching realities within resource-constrained environments. School leadership plays a critical role in shaping teachers’ attitudes, performance, and long-term commitment. Unlike traditional management, transformational leadership emphasizes inspiration, shared vision, individualized support, and professional growth, yet limited

contextualized research has explored its practical impact on teacher motivation. This study investigates the relationship between transformational leadership practices and teacher motivation at Eastern Valley School. Specifically, it examines how leaders articulate a collective vision, provide personalized support, and foster professional development, and how these practices influence motivation, job satisfaction, and instructional performance. Employing a qualitative case study design, data will be gathered through semi-structured interviews, focus group discussions, and document analysis to capture the perspectives of both administrators and teachers. The research seeks to identify strategies that enhance teacher engagement, strengthen professional commitment, and elevate instructional effectiveness. Findings are expected to inform leadership development programs, guide policy formulation, and support school improvement initiatives adaptable to similar educational settings. Beyond its local relevance, the case of Eastern Valley School contributes to global dialogues on effective leadership by demonstrating how transformational approaches can inspire and sustain teacher motivation across diverse educational contexts.

Keywords: Transformational Leadership, Leadership Practices

RESEARCH TOPIC 6: FOSTERING NEURODIVERSITY-SENSITIVE WORKPLACES IN RETAIL BUSINESS: STRENGTHENING THE STRATEGIC FRAMEWORK OF MR. DIY'S MARKINA AND PARANAQUE BRANCHES IN METRO MANILA STORES.

PRESENTER: MS. JHOSEFA Z. ESMERO, PAMANTASAN NG LUNGSOD NG MARIKINA (PLMAR), PHILIPPINES

INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT, DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSCDS)
27 September 2025

PLANADES
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT, DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSCDS)

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

DPMM
Disaster Preparedness, Mitigation and Management

Fostering Neurodiversity-Sensitive Workplaces in Retail Business: Strengthening the Strategic Framework of Mr. DIY's Marikina and Paranaque Branches in Metro Manila Store

Jhosefa Zita Esmero

Authors: Tabassam Raza, Jhosefa Z. Esmero, Crivelli S. Gispin, Alexandra A. Lavarias, Wendi G. Quioco, Oliver Ryann S. Tiamzon, Franklin E. Ayuson, Mark Anthony M. Morales, Zahoor Ahmad
Presenting Author: Jhosefa Z Esmero

ABSTRACT

Globally, fostering neurodiversity-sensitive workplaces has emerged as a critical strategy for promoting inclusion, driving innovation, and sustaining business growth. In the Philippine

INTERNATIONAL PARTNERS AND SUPPORTS:

Law Offices of Manuel Quintal
PLANADES
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT, DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSCDS)

EVERICH CONSULTANTS

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

DPMM
Disaster Preparedness, Mitigation and Management

VOLUNTARY COMMITMENTS
SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030

context, examining Mr. DIY’s Marikina and Parañaque branches offers valuable insights into how inclusive practices can be localized within the retail sector to strengthen employee well-being and organizational performance. The central challenge, however, lies in the absence of a tailored strategic framework that addresses the unique needs of neurodivergent employees while aligning with business objectives. This study investigates the integration of neurodiversity-sensitive practices in Mr. DIY’s selected Metro Manila stores. Employing a mixed-methods approach, combining employee surveys, managerial interviews, and observational audits, this research assesses existing policies, communication practices, and store layouts. Preliminary findings indicate a foundational commitment to diversity but reveal gaps in structured support for neurodivergent employees, particularly in areas such as sensory-friendly workspaces, flexible task design, and staff training on neurodiversity awareness. In response, the research proposes a strategic framework that emphasizes policy refinement, targeted education programs, and environmental adjustments to cultivate a more inclusive, supportive, and productive workplace. By integrating these recommendations with organizational goals, the study highlights the potential of neurodiversity-sensitive initiatives to enhance employee retention, strengthen customer engagement, and boost overall operational efficiency. Beyond its local application, this research contributes to global discourse on inclusive employment, demonstrating how retail organizations can leverage neurodiversity as a strategic asset to advance both social equity and sustainable business performance.

RESEARCH TOPIC 7: CORPORATE GOVERNANCE AND STRATEGIC LEADERSHIP FRAMEWORK FOR BUSINESS SUSTAINABILITY IN START-UP COFFEE SHOPS: THE CASE OF MARIKINA CITY, PHILIPPINES.

PRESENTER: MS. KOGE ARAGON GALLARDO, PAMANTASAN NG LUNGSOD NG MARIKINA (PLMAR), PHILIPPINES



Corporate Governance and Strategic Leadership Framework for Business Sustainability in Start-Up Selected Coffee Shops: The Case of Marikina City, Philippines



Authors: Tabassam Raza, Ma. Hezil L. Dugang, Koge A. Gallardo, Kyth Von Excel U. Lapastora, Mureilleryn M. Pendon, Marjo Nicholas Y. Ma. Tagle, Franklin E. Ayuson, Muhammad Amad Sheikh, Mark Anthony M. Morales, Zahoor Ahmad
Presenting Author: Koge A. Gallardo



ABSTRACT

Corporate governance and strategic leadership are globally recognized as critical drivers of business sustainability, particularly in highly competitive and rapidly evolving industries. In the Philippines, the rapid expansion of the coffee shop sector, especially in Marikina City of the Philippines creates both opportunities and challenges for start-up enterprises seeking long-term viability. Despite their growing cultural and economic role, many start-up coffee shops face constraints such as limited resources, fragile organizational systems, and the absence of structured governance and leadership frameworks. This study examines how the integration of corporate governance principles accountability, transparency, and stakeholder engagement with strategic leadership practices grounded in vision, adaptability, and innovation can strengthen organizational resilience and competitiveness. Positioned at the intersection of governance, leadership, and small-business sustainability, the research employs a qualitative methodology using interviews with selected small-scale coffee shop owners and managers. The goal is to construct a practical framework that not only advances academic discourse but also equips entrepreneurs with tools to enhance decision-making, reinforce internal systems, and secure long-term growth. At the local level, the case of Marikina’s start-up coffee shops demonstrates how governance and leadership frameworks can be contextualized to support entrepreneurial resilience, ethical practices, and sustainable business models. These insights also hold global significance, contributing to broader discussions on how small enterprises can balance profitability with sustainability while fostering community development and inclusive growth.

TOPIC 5: A CORPORATE SOCIAL RESPONSIBILITY TOWARDS BUSINESS CONTINUITY WITH A CASE STUDY OF POPULAR PIPES GROUP COMPANIES PVT. TD.

SPEAKER: MR. SHAHID IQBAL



Mr. Shahid Iqbal, explained in details a Corporate Social Responsibility towards Business Continuity with a Case Study of Popular Pipes Group Companies Pvt. Ltd.

Mr. Iqbal shared that Corporate Social Responsibility (CSR) plays a vital role in building trust, sustainability, and resilience for businesses. For any company, business continuity depends not only on operations but also on ethical and responsible practices. In their study, Mr. Iqbal used Case Study approach to explore how CSR supports long term stability, with Popular Pipes Group as example.

The study aims to explore CSR initiatives undertaken by Popular Pipes Group and evaluate how these efforts support its long-term continuity. It also seeks to analyze the challenges faced in implementation and identify the opportunities that can enhance CSR integration. Through this, we gain insights into the role of CSR in strengthening resilience. With a strong workforce and active stakeholder engagement, the company is well positioned to integrate CSR into its business model.

TOPIC 6: OVERVIEW ON ZAMBOANGA'S CITY HAZARD IMPACT

SPEAKER: ENP. JESSIE CHRISTOPHER LAPINID



EnP. Jessie Christopher Lapinid, Assistant City Planning and Development Coordinator, Zamboanga City discussed the Overview of Zamboanga's City Hazard Impact.

EnP. Jessie Christopher Lapinid presented an overview of Zamboanga City's hazard impact, focusing on the city's exposure to various natural and human-induced risks. He outlined that Zamboanga faces multiple hazards, including flooding, landslides, storm surges, earthquakes, and fire incidents, which are intensified by climate change, rapid urbanization, and unregulated land use.

To address these issues, EnP. Lapinid discussed a Resolution Approving the Zamboanga City Local Climate Change Action Plan 2016-2030) dated September 4, 2015. The Zamboanga City LCCAP was developed in response to Climate Change Act of 2009 (Republic Act 9729), local government units (LGUs) in the Philippines are mandated to formulate and implement climate action plans.

SESSION IV: SUSTAINABLE CLIMATE CHANGE AND DISASTER RISK REDUCTION IN ACHIEVING SUSTAINABLE DEVELOPMENT GOALS, GOOD GOVERNANCE, AND SPATIAL ISSUES

SESSION - IV
(15:20 –16:15 PM)

Sustainable Climate Change and Disaster Risk Reduction in Achieving Sustainable Development Goals, Good Governance, and Spatial Issues

Chair of the Session IV
Dr. Mark Anthony Morales
PLANADES
(Main Organizer)

INTERNATIONAL PARTNERS AND SUPPORTS:

- Law Offices of Manuel Quintal
- PLANADES
- EVERICH CONSULTANTS
- DPM - Davao
- DPMM - Disaster Preparedness, Mitigation and Management
- SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030

INTERNATIONAL PARTNERS AND SUPPORTS:

- Law Offices of Manuel Quintal
- PLANADES
- EVERICH CONSULTANTS
- DPM - Davao
- DPMM - Disaster Preparedness, Mitigation and Management
- SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030

RESEARCH TOPIC 1: ASSESSING THE EFFECTIVENESS OF LEED-CERTIFIED ROOF DESIGNS IN MITIGATING URBAN HEAT ISLANDS: A GIS-BASED CASE STUDY OF LAHORE

PRESENTER: ASMARA MUHAMMAD IRFAN, PLANADES INTERNATIONAL FELLOWSHIP PROGRAM



INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT,
DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSCDS)
27 September 2025

SENDAI FRAMEWORK
Law Offices of Manuel Quintal

DPMI
Disaster Preparedness, Mitigation and Management

PLANADES HO...

Assessing the Effectiveness of LEED-Certified Roof Designs in Mitigating Urban Heat Islands: A GIS-Based Case Study of Lahore

Presenting Author: Asmara Muhammad Irfan, PLANADES International Fellowship Program

ABSTRACT

Climate change is rapidly worsening the Urban Heat Island (UHI) effect in cities worldwide. In developing countries, this phenomenon is more severe due to weak environmental regulations and limited climate-resilient infrastructure. In Pakistan, Lahore is one of the most densely populated cities and regularly experiences summer temperatures exceeding 48°C which makes it a prime case for investigating UHI mitigation strategies. This study aims to assess the cooling performance of LEED-certified roof designs by comparing them to conventional rooftops in Lahore's built environment. Using satellite imagery (Landsat 8/9) and GIS tools, the study will digitize selected LEED and non-LEED building roofs, extract thermal data, and conduct a comparative analysis. Zonal statistics and spatial mapping will be employed to determine temperature differences between the two roof types. Tentative results suggest that LEED-certified roofs consistently display lower land surface temperatures, which demonstrates their potential to mitigate heat stress. The findings are expected to support policy recommendations that encourage the use of sustainable roofing materials in building codes and local development plans.

Keywords: Urban Heat Island, Building Codes, Local Development Plans

RESEARCH TOPIC 2: SPATIO-TEMPORAL ASSESSMENT OF AGRICULTURAL DROUGHT AND VEGETATION STRESS IN PUNJAB, PAKISTAN (2000–2024): A REMOTE SENSING APPROACH TO CLIMATE RISK REDUCTION

PRESENTER: HANIA ARIF, PLANADES INTERNATIONAL FELLOWSHIP PROGRAM

INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT,
DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSCDS)
27 September 2025

PLANADES
SENDAI FRAMEWORK
DPMI
PLANADES HOTEL

Spatio-Temporal Assessment of Agricultural Drought and Vegetation Stress in Punjab, Pakistan (2000–2024): A Remote Sensing Approach to Climate Risk Reduction

Presenting Author: Hania Arif, PLANADES International Fellowship Program

ABSTRACT

Punjab is the key agricultural province of Pakistan, contributes over 70% of the nation's wheat production and approximately 65% of its rice production, dominating the cultivation of high-value Basmati. However, it is increasingly vulnerable to climate-induced droughts that threaten regional food security and rural livelihoods. To address the critical gap in spatially explicit monitoring, this study evaluates the spatio-temporal dynamics of agricultural drought and vegetation stress in Punjab from 2000 to 2024. Using MODIS time-series data, we computed the Normalized Difference Vegetation Index (NDVI) and the Vegetation Health Index (VHI) which integrates the Vegetation Condition Index (VCI) and the Temperature Condition Index (TCI) to assess drought severity and vegetation health. Spatiotemporal trend analysis and anomaly detection were applied to identify persistent vulnerability hotspots. Results indicate that over 35% of the agricultural area experienced moderate-to-severe vegetation stress in at least five of the past fifteen years, with a statistically significant drying trend ($p < 0.05$) observed across the southern districts. Severe drought events were consistently mapped for the years 2002, 2012, 2019, and 2022. The key output is a high-resolution drought vulnerability zoning map that identifies the Barani region as the most vulnerable and pinpoints priority areas for intervention. These outputs provide a critical evidence base for developing robust early warning systems and targeting climate resilience strategies, ultimately supporting disaster risk reduction and sustainable food security in Punjab.

Keywords: Vulnerability, Vegetation, Climate Resilience, Warning Systems

RESEARCH TOPIC 3: TRANSITIONING FROM JEEPNEYS TO PUV MODERNIZATION IN THE PHILIPPINES: BALANCING FRANCHISEE AFFORDABILITY AND SUSTAINABLE URBAN AIR QUALITY

PRESENTER: WILLY T CHENG; PAMANTASAN LUNGSOD NG MARIKINA



Transitioning from Jeeps to PUV Modernization in the Philippines: Balancing Franchisee Affordability and Sustainable Urban Air Quality



Authors: Tabassam Raza, Avegiel M. Abayan, Cristian C. Alejandro, Mike E. Arradaza, Willy T. Cheng, Maria Fe L. Eribal, Johanna E. Kawagoe, Franklin E. Ayuson, Muhammad Amad Sheikh, Mark Anthony M. Morales, Dina C. Magnaye, Carmelita R.E.U Liwag
Presenter: Willy T. Cheng

ABSTRACT

Public transport modernization is recognized as a vital pathway to reducing emissions, improving mobility, and advancing sustainable urban development globally. In the Philippines, the transition from traditional jeeps to modernized public utility vehicles (PUVs) underscores the challenge of balancing franchisee affordability with the urgent need to improve air quality and mitigate climate change. Traditional jeeps remain a major source of local air pollution and greenhouse gas emissions, prompting the government to launch the Public Utility Vehicle Modernization Program (PUVMP) in June 2017 through the Department of Transportation. While the program aims to reduce carbon emissions and enhance commuter safety, its implementation faces

significant hurdles. The high cost of modern PUVs, estimated between PHP 1.43 million and PHP 3.83 million, has imposed financial strain on small-scale franchisees, leading to repeated consolidation deadlines, widespread protests, and transport strikes. This study examines the balance between environmental objectives and franchisee affordability, assessing how modernization can be pursued without displacing thousands of drivers and operators. Using secondary data, it compares the costs and environmental benefits of the transition and analyzes existing policies that provide financial support or trade-offs to aid franchisees. Findings will highlight that modernization policies must be inclusive, supported by mechanisms such as subsidies, cooperative ownership models, and accessible financing. A just and equitable transition is essential to achieve both environmental gains and social protection. Insights from this case not only guide local strategies for cleaner urban air but also contribute to global debates



on equitable, low-emission mobility in developing cities.

Keywords: Transport Modernization, Reducing Emissions, Low-Emission

RESEARCH TOPIC 4: MULTIGENERATIONAL WORKFORCE RETENTION CHALLENGES OF FIELD OUTSOURCE ASIA INC, CUBAO, QUEZON CITY, PHILIPPINES: UNCOVERING ROOT CAUSES TO DESIGN EFFECTIVE ENGAGEMENT STRATEGY FRAMEWORK (EESF)

PRESENTER: CAMILLE B. DEFENSOR, PAMANTASAN NG LUNGSOD NG MARIKINA

INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT,
DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSCDS)
27 September 2025

SENDI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

DPMM
Disaster Preparedness,
Mitigation and Management

Multigenerational Workforce Retention Challenges of Field Outsource Asia Inc, Cubao, Quezon City, Philippines: Uncovering Root Cause to Design Effective Engagement Strategy Framework (EESF)

Authors: Tabassam Raza, Ma. Pamela Kaye R. Andres, Armida C. Barbosa, Camille B. Defensor, Charles David M. Sandalo, Franklin E. Ayuson, Muhammad Amad Sheikh, Zahoor Ahmad

Presenter: Camille B. Defensor

ABSTRACT

Globally, organizations face increasing challenges in retaining a multigenerational workforce as differences in values, expectations, and work styles influence engagement and performance. Locally, the case of Field Outsource Asia Inc. (FOA) in Cubao, Quezon City, demonstrates how these dynamics unfold in the Philippine context, offering critical insights for designing effective engagement strategy frameworks. Today's workplace is historically unique, with the Silent Generation, Baby Boomers, Gen X, Millennials, and Gen Z all present. Extended life expectancy and delayed retirements have further broadened this age spectrum. This diversity presents significant retention challenges. Older generations often emphasize stability and long-term commitment, while Millennials and Gen Z prioritize career growth, work-life balance, and purposeful work. Current retention strategies frequently adopt generic approaches, failing to address the distinct needs of each cohort, resulting in disengagement, talent drain, rising recruitment costs, and loss of institutional knowledge. This study applies Root Cause Analysis to examine retention drivers two career development, compensation, recognition, organizational culture, and work-life balance, while identifying generational differences in turnover rates. Data

collection involves surveys and interviews with employees across age groups, supplemented by comparative analyses to reveal both shared and unique engagement factors. The findings of this aim to develop an Effective Engagement Strategy Framework (EESF) tailored to multigenerational needs, enhancing retention, collaboration, and innovation while driving long-term organizational growth. Beyond FOA, the study provides evidence-based insights that can be contextualized for similar organizations locally and globally, contributing to the broader discourse on sustaining workforce stability in an era of generational diversity.

Keywords: Work-Life Balance, Root Cause Analysis, Workforce Stability, Generational Diversity

RESEARCH TOPIC 5: AI-DRIVEN SOCIAL MEDIA MARKETING: ENHANCING BRAND VISIBILITY, PRECISION TARGETING, AND SUSTAINABLE COMPETITIVE ADVANTAGE: A CASE STUDY OF MOOLK CREAMERY CORP, PHILIPPINES

PRESENTER: MARILYN V. DUCLAYAN, PAMANTASAN NG LUNGSOD NG MARIKINA

INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT,
DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSDS)
27 September 2025

PLANADES
SENDI FRAMEWORK
DPMM
DILIGENT CONSULTING INC.
EVERICH CONSULTANTS
LAW OFFICES OF MANUEL QUINTAL
MARIKINA CITY GOVERNMENT
MARIKINA UNIVERSITY
MARIKINA UNIVERSITY OF SCIENCE AND TECHNOLOGY
MARIKINA UNIVERSITY OF TECHNOLOGY
MARIKINA UNIVERSITY OF THE EAST
MARIKINA UNIVERSITY OF THE WEST
MARIKINA UNIVERSITY OF THE SOUTH
MARIKINA UNIVERSITY OF THE NORTH
MARIKINA UNIVERSITY OF THE CENTER
MARIKINA UNIVERSITY OF THE WESTERN
MARIKINA UNIVERSITY OF THE EASTERN
MARIKINA UNIVERSITY OF THE SOUTHERN
MARIKINA UNIVERSITY OF THE NORTHERN
MARIKINA UNIVERSITY OF THE SOUTHWESTERN
MARIKINA UNIVERSITY OF THE NORTHEASTERN
MARIKINA UNIVERSITY OF THE SOUTHEASTERN
MARIKINA UNIVERSITY OF THE NORTHWESTERN
MARIKINA UNIVERSITY OF THE NORTHWESTERN
MARIKINA UNIVERSITY OF THE NORTHWESTERN

**AI-Driven Social Media Marketing:
Enhancing Brand Visibility, Precision
Targeting, and Sustainable
Competitive Advantage: A Case
study of Moolk Creamery Corp,
Philippines**

Presenter: Marilyn V. Duclayan

ABSTRACT

Artificial intelligence (AI) has reshaped digital marketing worldwide, with platforms such as Facebook’s Meta Ads Manager and TikTok’s For You feed leveraging algorithms to optimize audience engagement, while creative tools like Canva and CapCut democratize content creation through accessible, visually compelling designs. These innovations enable businesses to improve visibility, achieve precision targeting, and maintain competitiveness. In the Philippines—one of the world’s most active social media markets such as micro, small, and medium enterprises (MSMEs) increasingly recognize the potential of AI-driven marketing. Yet,

significant barriers remain: limited expertise, resource constraints, ethical concerns on data use, and risks of algorithmic bias undermine effective adoption. Consequently, many MSMEs face inconsistent brand visibility, weak consumer targeting, and low conversion outcomes, placing them at a disadvantage compared to digitally advanced competitors. This study pilots Moolk Creamery Corp, located in Tanay, Rizal, Philippines to evaluate the application of AI-enabled tools within a local MSME context. Using a descriptive and exploratory design, the research employs comparative assessments of marketing performance before and after AI integration, complemented by Key Informant Interviews (KIIs). The study aims to identify opportunities, gaps, and constraints in AI-driven marketing, ultimately generating evidence-based recommendations. Findings are expected to provide cost-effective, scalable strategies that bridge global best practices with local realities. By contextualizing AI adoption in a Philippine MSME, the research underscores how advanced technologies can enhance consumer engagement, strengthen competitiveness, and foster inclusive, long-term business resilience in the digital economy.

Keywords: Artificial Intelligence, Digital Marketing, Digital Economy.

RESEARCH TOPIC 6: A COMPARATIVE STUDY OF EMERGING: E-JEEPNEY AND TRADITIONAL JEEPNEY TRANSPORT IN MARIKINA: A MARKETING STRATEGY FRAMEWORK
PRESENTER: CHRISTINE JOY CASTRO YANZON, PAMANTASAN NG LUNGSOD NG MARIKINA

The banner features a light green background with a dark green wavy border at the bottom. At the top left, there are logos for PLANADES and the conference title: "INTERNATIONAL CONFERENCE ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT, DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSCDS) 27 September 2025". To the right of the title are logos for SENDAI FRAMEWORK, Law Offices of Manuel Quintal, and DPMM. The central text reads "Comparative Study of Emerging E-Jeepney and Traditional Jeepney Transport in Marikina, Philippines: A Marketing Strategy Framework". Below this, it says "Presenter: Christine Joy Castro Yanzon". On the right side, there is a photograph of Christine Joy Castro Yanzon speaking at a podium with a microphone. A Philippine flag is visible behind her.

ABSTRACT

Globally, the transition to sustainable urban mobility underscores the urgency of adopting low-emission public transport solutions. In the Philippines, jeepneys remain one of the most widely used modes of daily transport, connecting millions of Filipinos to schools, offices, markets, and other destinations. However, rapid urbanization and economic growth have intensified traffic congestion in Metro Manila, leaving traditional jeepneys often overcrowded and commuters facing uncomfortable, prolonged journeys enhancing carbon emission. Technological innovation has introduced the electronic jeepney (e-jeepney) as an emerging alternative, offering a cleaner, more comfortable, and convenient transport option. This study examines the comparative dynamics between traditional jeepneys and e-jeepneys in Marikina City, focusing on how modern marketing strategies influence commuter preferences and affect the livelihoods of traditional jeepney operators. Using a comparative case study approach, the research assesses commuter decision-making, adoption patterns, and the competitive positioning of e-jeepneys relative to their traditional counterparts. The analysis will highlight the trade-offs between innovation, affordability, and commuter acceptance, while situating Marikina’s experience within broader global debates on sustainable mobility. This study will also demonstrate how marketing frameworks can both support the transition to greener transport and safeguard cultural and socioeconomic realities that jeepneys represent in Philippine society. Ultimately, Findings expected to provide actionable strategies for traditional jeepney operators to improve services, leverage marketing tools, and remain competitive in a rapidly evolving transport market.

Keywords: Jeepneys, Daily Transport, Technological Innovation, Innovation, Affordability

SESSION V: MAINSTREAMING CLIMATE CHANGE AND RELATED FINANCIAL MECHANISM IN PLANNING

SESSION - V
(16:30 –18:01 PM)

**Mainstreaming
Climate Change and
Related Financial
Mechanism in
Planning**

Chair of the Session V
Dr. Shaker Mahmood Mayo
**University of Engineering and
Technology, Pakistan**
(Institutional Partner)

INTERNATIONAL PARTNERS AND SUPPORTS:

Law Offices of Manuel Quintal | PLANADES | EVERICH CONSULTANTS | DPMM (Disaster Preparedness, Mitigation and Management) | SENDAI FRAMEWORK (FOR DISASTER RISK REDUCTION 2015-2030)

INTERNATIONAL PARTNERS AND SUPPORTS:

Law Offices of Manuel Quintal | PLANADES | EVERICH CONSULTANTS | DPMM (Disaster Preparedness, Mitigation and Management) | SENDAI FRAMEWORK (FOR DISASTER RISK REDUCTION 2015-2030)

RESEARCH TOPIC 1: TOWARD SUSTAINABLE MOBILITY IN LAHORE: ADDRESSING POLICY GAPS IN WALKING AND CYCLING INFRASTRUCTURE

PRESENTER: SYED MUHAMMAD RAFAY, PLANADES INTERNATIONAL FELLOWSHIP PROGRAM



INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT,
DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPCSDS)
27 September 2025

SENDI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

DPMM
Disaster Preparedness,
Mitigation and Management

Toward Sustainable Mobility in Lahore: Addressing Policy Gaps in Walking and Cycling Infrastructure

Presenter: Syed Muhammad Rafay

Syed Rafay

ABSTRACT

Lahore faces growing challenges related to air pollution, traffic congestion, and poor walkability, largely due to the absence of policies and infrastructure supporting non-motorized modes of transport such as walking and cycling. This study investigates the planning and regulatory gaps that hinder the promotion of active mobility across three socioeconomically diverse neighbourhoods: Sant Nagar, NFC Housing, and Dream Gardens. Using a mixed-methods approach, combining spatial mapping, resident surveys, and interviews with planning officials, the research reveals that all areas, regardless of income level, suffer from inadequate pedestrian and cycling infrastructure, with a lack of inclusive design, absence of safe pedestrian crossings, and limited policy guidance being consistent barriers across the city's neighbourhoods. Residents express strong support for active travel, but public awareness and institutional commitment remain limited. The study concludes by offering neighbourhood-level policy recommendations to embed sustainable mobility into Lahore's planning framework and reshape the city's future mobility.

Keywords: Air Pollution, Spatial Mapping, Neighbourhoods

RESEARCH TOPIC 2: DEVELOPING A HOLISTIC FRAMEWORK FOR FLOOD DISASTER RISK MANAGEMENT (DRM) – ADDRESSING PRE-, DURING-, AND POST-FLOOD CHALLENGES THROUGH AN INTEGRATED APPROACH

PRESENTER: HAFIZ MUHAMMAD JUNAID RAHEEM, PLANADES INTERNATIONAL FELLOWSHIP PROGRAM

INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT,
DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSCDS)
27 September 2025

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

DPMM
Disaster Preparedness,
Mitigation and Management

Developing a Holistic Framework for Flood Disaster Risk Management (DRM) – Addressing Pre-, During-, and Post-Flood Challenges Through an Integrated Approach

Presenter: Hafiz Muhammad Junaid Raheem

Hafiz Junaid

ABSTRACT

Flood disasters are among the most frequent and damaging natural hazards, particularly in rapidly urbanizing regions with increasing climate risks. Despite the existence of various strategies, current approaches to flood risk management often remain fragmented and reactive, with limited integration across the pre-flood, during-flood, and post-flood phases. This study addresses these deficiencies by developing a holistic, proactive, and timeline-based framework for managing flood disasters in urban environments. A mixed-methods approach was employed, incorporating a literature review, stakeholder consultations, and case study assessments in flood-prone areas. The research identified significant challenges in early warning systems, infrastructure resilience, and community preparedness. The study also determined that marginalized groups, specifically the urban poor, older adults, and persons with disabilities, face heightened vulnerability and impact during flood events. The findings demonstrate that an integrated, phase-based framework improves stakeholder coordination, supports inclusive planning, and enhances recovery outcomes. The developed model provides practical strategies for urban planners, disaster managers, and policymakers, thereby contributing to more resilient and adaptable urban systems. This framework is designed to be scalable and applicable in other socio-economic and environmental contexts, aligning with international disaster risk reduction goals and strengthening institutional and community resilience to future flood risks.

Keywords: Flood Disasters, Natural Hazards, Disaster Risk Reduction

RESEARCH TOPIC 3: URBAN MORPHOLOGY AND SURFACE COVER ANALYSIS IN THE GREEN INFRASTRUCTURE ACTION PLAN (GIAP): THE CASE OF BARANGAY U.P. CAMPUS, QUEZON CITY, PHILIPPINES

PRESENTER: THESS KHAZ S. RAZA; PLANADES INTERNATIONAL FELLOWSHIP PROGRAM

INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT,
DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSDS)
27 September 2025

PLANADES
SENDI FRAMEWORK
DPMMP
Khaz Raza

Urban Morphology and Surface Cover Analysis in the Green Infrastructure Action Plan (GIAP): The Case of Barangay U.P. Campus, Quezon City, Philippines

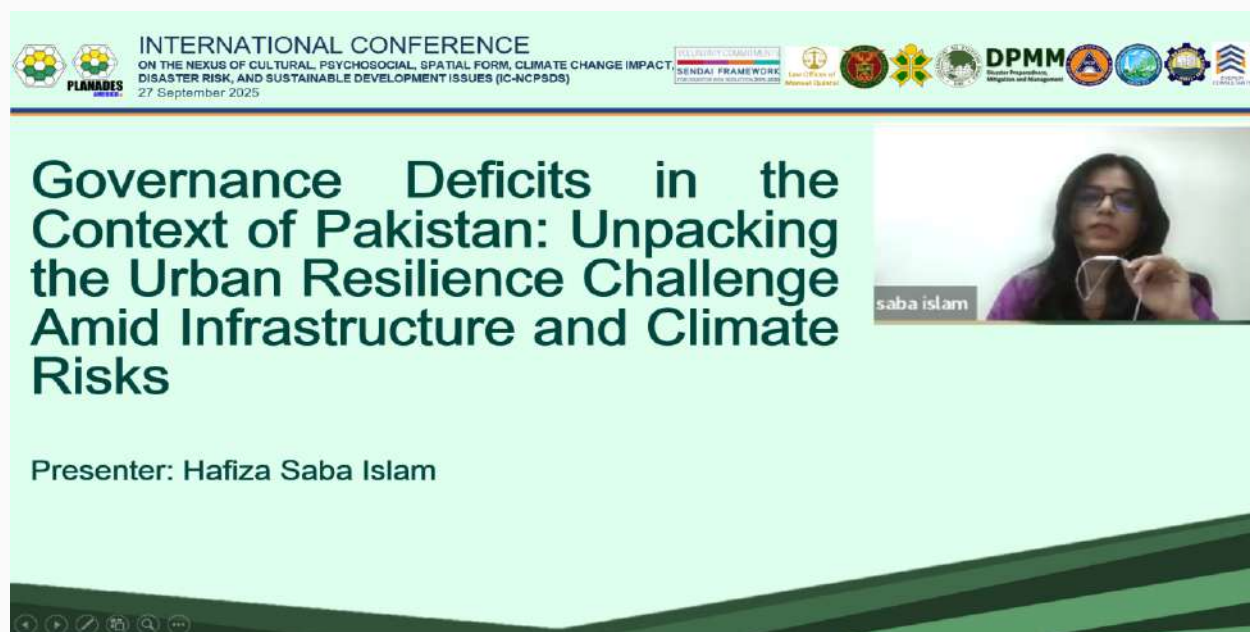
Presenter: Thess Khaz S. Raza

ABSTRACT

Urbanization profoundly alters natural hydrologic cycles, reducing infiltration and increasing surface runoff due to impervious surfaces, drainage modifications, and vegetation loss. These changes disrupt ecological functions—diminished green spaces elevate temperatures, intensify runoff, reduce biodiversity, and weaken urban resilience to climate change. Rapidly urbanizing cities such as Quezon City, Philippines, face heightened risks, including recurrent flooding and the Urban Heat Island (UHI) effect. Studies indicate that microclimatic changes may raise summer temperatures in Quezon City by up to 7 °C, underscoring the urgency of adaptation measures. This research focuses on Barangay UP Campus, one of Quezon City’s smallest yet rapidly transforming communities. Two major impacts are identified: the UHI effect and increased runoff causing localized flooding. Addressing these requires prioritizing green infrastructure (GI) in urban design to mitigate ecological stresses. Employing a bottom-up approach, the study integrates urban morphology and physiographic data to project future increases in temperature and runoff. The goal is to inform the Barangay UP Campus Green Infrastructure Action Plan (GIAP) 2025–2035, by analyzing relationships between land cover, urban form, and ecological benefits such as temperature reduction, runoff control, carbon storage, and biodiversity. Ultimately, the study advances sustainable development strategies, supporting broader climate adaptation efforts and strengthening institutional capacity to adopt resilient GI solutions.

Keywords: Vulnerable Communities, Disaster Risk Management, Resilience

RESEARCH TOPIC 4: GOVERNANCE DEFICITS IN THE CONTEXT OF PAKISTAN: UNPACKING THE URBAN RESILIENCE CHALLENGE AMID INFRASTRUCTURE AND CLIMATE RISKS
PRESENTER: HAFIZA SABA ISLAM; PLANADES INTERNATIONAL FELLOWSHIP PROGRAM



INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT,
DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSCDS)
27 September 2025

GOVERNANCE DEFICITS IN THE
CONTEXT OF PAKISTAN: UNPACKING
THE URBAN RESILIENCE CHALLENGE
AMID INFRASTRUCTURE AND CLIMATE
RISKS

Presenter: Hafiza Saba Islam

saba islam

ABSTRACT

Urban resilience in Pakistan is increasingly challenged by rapid urbanization, weak institutional coordination, and intensifying climate-related hazards. This paper critically examines governance deficits as a central barrier to resilience-building in Pakistani cities, with particular attention to the interplay between infrastructure fragility and climate risks. Drawing upon the UNDRR Making Cities Resilient framework and the City Essentials approach, the study highlights systemic gaps in planning, accountability, and cross-sectoral coordination that hinder local governments' ability to respond effectively. Empirical insights are drawn from stakeholder consultations and institutional assessments in Lahore, underscoring how fragmented governance, limited resources, and weak enforcement exacerbate exposure and vulnerability. The analysis argues that bridging governance deficits is imperative for achieving sustainable and inclusive resilience pathways. The paper concludes with recommendations for strengthening institutional capacity, integrating resilience attributes into urban planning, and aligning local governance with global resilience frameworks.

Keywords: Good Urban Governance, Institutional Capacity, Disaster Risk Reduction, Urban Planning and Development

RESEARCH TOPIC 5: DEVELOPMENT OF A STRATEGIC FRAMEWORK AND ITS IMPLEMENTATION IN ASSESSING DPWH'S 11 FLOOD CONTROL PROJECTS' ALIGNMENT LEVEL WITH THE EXISTING QC DRRM PPAS IN BARANGAY BAGONG SILANGAN

PRESENTER: ENGR. BREAN MEG A. WALAG; UNIVERSITY OF THE PHILIPPINES SCHOOL OF URBAN AND REGIONAL PLANNING

INTERNATIONAL CONFERENCE
ON THE NEXUS OF CULTURAL, PSYCHOSOCIAL, SPATIAL FORM, CLIMATE CHANGE IMPACT,
DISASTER RISK, AND SUSTAINABLE DEVELOPMENT ISSUES (IC-NCPSCDS)
27 September 2025

PLANADES
SENDI FRAMEWORK
DPMM
Disaster Preparedness, Mitigation and Management

Development of a Strategic Framework and its Implementation in Assessing DPWH's 11 Flood Control Projects' Alignment Level with the Existing QC DRRM PPAs in Barangay Bagong Silangan

Authors:
Tabassam Raza, Christopher Ignacio, Chynx Efrheim Bilaw, Brean Meg Walag,
Dina Magnaye, Carmelita Liwag, Mark Anthony Morales

Presenting Author: Brean Meg Walag

ABSTRACT

Globally, floods have affected nearly 2 billion people, or 45% of the population, between 1998 and 2017 (UNDRR, 2019). The Philippines remains one of the most flood-prone countries, frequently impacted by typhoons, monsoon rains, and extreme weather. Metro Manila, home to nearly 14 million residents as of 2024 and the nation's economic hub, suffers recurring floods that disrupt lives, livelihoods, and urban systems. A stark example occurred on August 30, 2025, when a hyper-localized thunderstorm delivered 134.2 mm of rainfall in three hours (1:00–4:00 PM), overwhelming drainage systems in Quezon City and flooding areas such as Mother Ignacia Ave, Elliptical Road, Araneta Ave, Katipunan Ave, EDSA Centris, and Quezon Ave. Despite ongoing flood-control initiatives led by the Department of Public Works and Highways (DPWH), these events highlight persistent vulnerabilities and a disconnect between national projects and local disaster management plans' PPAs. This study pilots Barangay Bagong Silangan, Quezon City, to assess the alignment of DPWH flood control projects with the Quezon City Disaster Risk Reduction and Management (QCDRRM) Plan's Programs, Projects, and Activities (PPAs). A strategic framework was developed, involving sectoral categorization of DPWH projects, their comparison with QCDRRM PPAs, and assessment using a four-point Likert scale. Findings reveal a low degree of alignment, with an overall score of 5.5, verbally interpreted as "Low." This indicates that existing flood-control initiatives are insufficiently

responsive to the community’s specific needs and, in some cases, exacerbate gaps that weaken resilience outcomes. The study recommends stronger integration between national and local planning instruments, improved project responsiveness, and enhanced community-centered resilience strategies. Importantly, the framework and methodology developed are replicable across other flood-prone barangays, enabling more effective, accountable, and context-sensitive disaster risk management nationwide.



SYNTHESIS

A Welcome Remark from PLANADES office were delivered by Dr. Mark Anthony Morales, President of PLANADES followed by the introduction of the guest of honor, Quezon City Mayor Hon. Joy Belmonte represented by EnP. Ma. Bianca D. Perez, Officer-In-Charge of the Quezon City Disaster and Risk Management Office (DRRMO).

PLANADES institutional partners also welcomes the participants and speakers lead by Dr. Dina C. Magnaye, Dean, School of Urban and Regional Planning (SURP), Dr. Indrajit Pal, Chair, Disaster Preparedness Mitigation and Management, Asian Institute of Technology, Thailand, Atty. Rizwan Yousaf, Partner Law Offices of Manuel Quintal and PLANADES US Office Country Coordinator via web conferencing.

The Ambassador of the Islamic Republic of Pakistan to the Republic of Manila, Philippines, H.E. Dr. Asima Rabbani also expresses her support to the event by welcoming all the partners, speakers and participants represented by Ms. Fareeha Khan through online.

Prof. Dr. Tabassam Raza, Executive Director of PLANADES and Professional Lecturer II, UP SURP, introduces the speakers for Session 1 that will tackle a topic on Climate Change through Cultural Dialogue and Social Lens. Session 2, for Risk-Sensitive Land Use Planning, Cultural Heritage, and Real Estate Management. Session 3, for Climate Change Adaptation, Disaster Risk Reduction and Resilient Communities and Business Community. Session 4, for Sustainable Climate Change and Disaster Risk Reduction in Achieving Sustainable Development Goals, Good Governance, and Spatial Issues and Session 5, for Mainstreaming Climate Change and Related Financing Mechanism in Planning.

Session 1 speakers were Prof. Dr. Shaker Mahmood Mayo from University of Engineering and Technology (UET), Lahore. Dr. Mahmood talked over Spatial Forms in Risk Sensitive Urban Planning: A case study from Pakistan. EnP. Alberto Kimpo from Quezon City Government – Office of City Administrator (OCA) discussed the Climate Change through Cultural Dialogue in Quezon City followed by Engr. Joel Colobong from Office of the Civil Defense on Perspective towards Climate Change and Disaster Reduction Impact. Lastly, Prof Dr. Dina C. Magnaye, Dean, UP School of Urban and Regional Planning (SURP) discussed the Significance of Research for Graduate Studies.

Session 2 speakers were Prof. Dr. Tabassam Raza, Executive Director of PLANADES, talked about the Mandates towards Developing Comprehensive Land Use Plan (CLUP), Comprehensive Development Plan (CDP), Climate and Disaster Risk Assessment (CDRA) in Philippine Context. Dr. Muhammad Amad Shiek from Law Offices of Manuel Quintal, talked about the Role of US Real Estate Management Toward Livelihood Opportunities. Prof. Dr. Dietwald Gruehn from TU Dortmund University talked about Climate Change through Cultural Heritage Dialogue Lense with a Case Study of Planning in Pakistan and Germany. Dr. Indrajit Pal from Asian Institute of Technology (AIT), Thailand, discussed about Disaster Risk, and Sustainable Development Issues - A study from Thailand and India.

In this session, PLANADES conducted a panel discussion on Climate Change Impact on Cities and Adverse Impact on Business Continuity and Communities moderated by Ms. Jenie G. Darang, HR Associate from PLANADES. Prof. Dr. Shaker Mahmood Mayo from University

of Engineering and Technology (UET), Lahore, Mr. Jerome E. Ilagan, Chief Policy Research and Development Division, Climate Change Commission, Dr. Elmier Apolinario, CDRRMO for Zamboanga City and EnP. Jessie Christopher Lapinid, City Planning and Development Officer, Zamboanga City, shared their expertise in preventing climate change impact.

Session 3 focuses on Climate Change Adaptation, Disaster Risk Reduction and Resilient Communities and Business Continuity. It was facilitated by Dr. Indrajit Pal, Asian Institute of Technology (AIT), Disaster Preparedness Mitigation and Management (DPMM) Partner. Student's from Universities and other Organizations presented their initial studies for further development.

Session 4 was chaired by Prof. Dr. Mark Anthony Morales. The topic was Sustainable Climate Change and Disaster Reduction in Achieving Sustainable Development Goals, Good Governance and Spatial Issues. Student's from Universities and other Organizations also presented their initial studies for further development.

In addition to the session, PLANADES represented by its President, Dr. Mark Anthony Morales and Executive Director, Dr. Tabassam Raza entered into a memorandum of understanding with Al-Kabir Academy, Lahore, represented by Prof. Dr. Shaker Mahmood Mayo.

Lastly, Session 5 was moderated by Prof. Dr. Shaker Mahmood Mayo focusing on Mainstreaming Climate Change and Related Financial Mechanism in Planning followed by the presentation of their abstract report from the students of the universities and organizations.

The seminar concluded with Prof. Dr. Mark Anthony Morales, Prof. Dr. Shaker Mahmood Mayo, Prof. Dr. Tabassam Raza, providing a synthesis of discussion and delivering the official closing remarks.

PLANADES extends its gratitude to all partners, speakers, and participants for their contributions and is looking forward to continued collaboration in addressing the challenges posed by climate change.

LIST OF PARTICIPANTS

Alexandra A. Lavarias
Anlord Loveria Gloriane
Ar. Richelle Escolar
Armida Cadiz Barbosa
Asmara Irfan
Athena Mari E. Son
Atty. Rizwan Yousaf
Brean Meg Walag
Camille Bandiez Defensor
Camille Santos Dela Merced
Charles David Sandalo
Christine Joy C. Yanzon
Christopher John Marcelino D. Ignacio
Chynx Efrheim T. Bilaw
Cristian Ernie Chu Alejandro
Crivelli S. Gispin
Cyril Joyce Enriquez Ramos
Dean Dina Magnaye
Dr. Dietwald Gruehn
Dr. Elmier Apolinario
Dr. Indrajit Pal
Dr. Karen Ann B. Jago-On
Dr. Shaker Mahmood
Dr. Zahoor Ahmed
Edelen Pura Freo
Elieza May F. Cruz
Engr. Dianne Joy Cathyrine V. Sanchez
Engr. Ernie M. Lopez
EnP. Alberto Kimpo
EnP. Arlene D.R. Santiago
EnP. Jade Agapinan
EnP. Jessie Lapinid
EnP. Ma. Bianca Perez
Franchaisen Malto
H.E. Dr. Asima Rabbani
Hafiz Muhammad Junaid Raheem
Hafiza Saba Islam
Hania Arif
Hon. Khymer Adan Olasso
Jessa Santillan Sotelo
Jhosefa Z. Esmero
John Paul Prado Ariola
Joshua Muñoz Habagat
Klariza Mae Javelona Bachini
Koge Aragon Gallardo
Kyth Von Excel Untalan Lapastora
Laraib Rauf
Lei Kryzel Ambid Jimenez
Ma. Hezil L Dugang
Ma. Johnefer Ann M. Fellizar
Maria Fe Laramento Eribal
Marilyn Villaran Duclayan
Mike Espenilla Arradaza
Mr. Adrian E. Reginaldo
Mr. Arnold Grant S. Belver
Mr. Erick John B. Lozada
Mr. Jerome E. Ilagan
Mr. John Patrick P. Caytiles
Mr. Shahid Iqbal
Ms. Celine T. Pascual
Ms. Fareeha Khan
Ms. Glenn Rose S. Lim
Ms. Jenie G. Darang
Ms. Roselyn Q. Flores
Nickerson Hernandez Sagun
Prof. Carmelita R.E.U. Liwag
Prof. Dr. Dietwald Gruehn
Prof. Dr. Shaker Mahmood Mayo
Prof. Dr. Tabassam Raza
Rey Gabriel Advincula Granada
Rey L. Gallares
Rialinda Garino Castañas
Ronilo Moldez Balbieran
Rose Ann Bacolor Amar
Syed Muhammad Rafay
Thess Khaz Sadaya Raza
Willy Trigueros Cheng

PHOTO DOCUMENTATION



IC-NCPCSDS BANNER



Registration Area



Opening Prayer



National Anthem



Welcome Remarks from Dr. Mark Anthony Morales, PLANADES President

INTRODUCTION OF THE GUEST OF HONOR AND SPEAKER

EnP. MA. BIANCA D. PEREZ
Office In- Charge
Quezon City Disaster and Risk
Reduction Management
Office (DRRMO)

INTERNATIONAL PARTNERS AND SUPPORTS

Law Offices of Manuel Quintal | PLANADES | EVERICH CONSULTANTS | DPMM (Disaster Preparedness, Mitigation and Management) | SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030

EnP. Ma. Bianca D. Perez, Office In- charge Quezon City Disaster and Risk Reduction Management Office (DRRMO), introduces Hon. Mayor Joy Belmonte of Quezon City as the Guest of Honor of the event.



Welcome Message from Dean Assoc. Prof. Dina C. Magnaye, Dean, School of Urban and Regional Planning University of the Philippines



Welcome Message from Dr. Indrajit Pal, Chair, Disaster Preparedness Mitigation and Management, Asian Institute of Technology, Thailand

MESSAGE FROM INSTITUTIONAL PARTNER



ATTY. RIZWAN YOUSAF
 Partner, Law Offices of Manuel Quintal & Coordinator, PLANADES US Country Office

INTERNATIONAL PARTNERS AND SUPPORTS:



Welcome Message from Atty. Rizwan Yousaf, Partner Law Offices of Manuel Quintal & PLANADES US Office Country Coordinator

MESSAGE FROM THE GUEST OF HONOR



H.E. DR. ASIMA RABBANI
 Ambassador, Pakistan Embassy Manila, Philippines

Represented by **FAREEHA KHAN**
 Investment Councilor, Embassy of Pakistan Manila



GUEST OF HONOR **REPRESENTATIVE**

INTERNATIONAL PARTNERS AND SUPPORTS:



Ms. Fareeha Khan, Trade and Investment Counsellor, Embassy of Pakistan to the Philippines, delivers a Welcome Message on behalf of the H.E. Dr. Asima Rabbani, Ambassador, Islamic Republic of Pakistan to the Republic of Manila Philippines





Dr. Engr. Tabassam Raza, Executive Director of PLANADES & Professorial Lecturer II School of Urban and Regional Planning University of the Philippines, introduces the Speakers for Session 1



Prof. Dr. Shaker Mahmood from University of Engineering and Technology, Pakistan talks about Spatial Forms in Risk Sensitive Urban Planning: A Case study from Pakistan



Dr. Zahoor Ahmed, Pakistan Embassy to Spain discusses the Workshop on Calmness, Productivity and Resilience at Work



Dr. Dina C. Magnaye, Dean School of Urban and Regional Planning University of the Philippines, discusses the Significance of Research for Graduate Studies






Group Photo after the SESSION 1 for Climate Change through Cultural Dialogue and Social Lens

Category	Level (Approximate)
Rental vacancy (%)	0
Homeowner vacancy (%)	0
Remodel spend 2024 (\$B)	500
Remodel spend 2025p (\$B)	500
Foreclosure filings Aug 2025 (K)	50
New home sales Aug 2025 (K SAAR)	800

Jobs need stable homes and stable markets

Dr. Muhammad Amad Sheikh from Law Offices of Manuel shares the Role of US Real Estate Management Toward Livelihood Opportunities



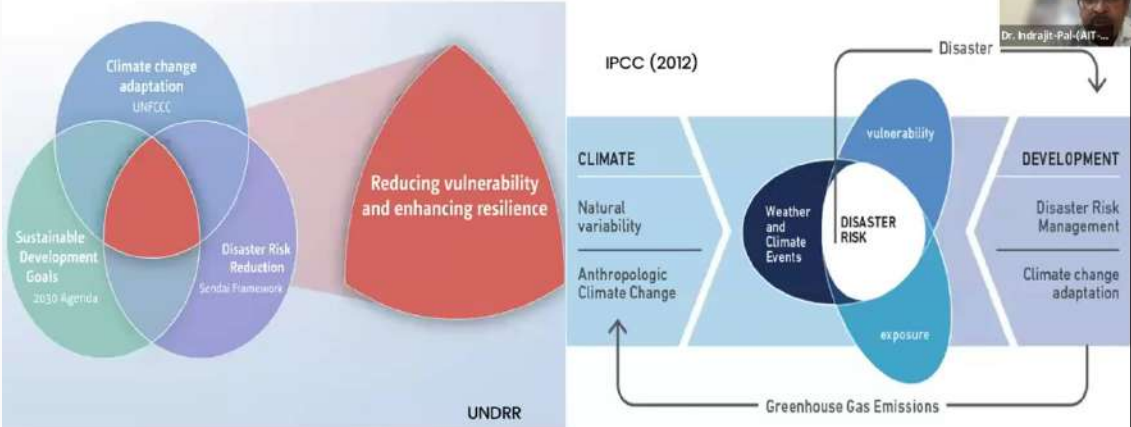



Climate Change through Cultural Dialogue Lense: A Case Study of Planning in Pakistan and Germany

by

Prof. Dr. Dietwald Gruehn, Quezon City (The Philippines), 27 September, 2025

Prof. Dr. Dietwald Gruehn, TU Dortmund University, Germany talks about Climate Change through Cultural Heritage Dialogue Lense: A case Study of Planning in Pakistan and Germany.



Disaster Risk Reduction, Climate Change Adaptation and Sustainable Development must become common goals across all global, regional and national development frameworks.

Dr. Indrajit Pal, Chair, Disaster Preparedness Mitigation and Management, Asian Institute of Technology, Thailand discusses Disaster Risk, and Sustainable Development Issues: A study from Thailand/ India



Panel Session on Climate Change Impact on Cities and Adverse Impact on Business Continuity and Communities: From L to R, EnP. Jessie Christopher Lapinid; representative from the Office of the City Mayor of Zamboanga, Mr. Jerome E. Ilagan, Chief Policy Research and Development Division, Climate Change Commission, Prof. Dr. Shaker Mahmood; Professor/Chairman City & Regional Planning Department, University of Engineering & Technology, Lahore-Pakistan, Dr. Elmier Apolinario, representative by Hon. Khymer Adan Olaso, Zamboanga City Mayor.



Prof. Dr. Shaker Mahmood receives his Plaque of Appreciation as Guest Speaker and Panelist



Mr. Jerome E. Ilagan receives his Plaque of Appreciation as Guest Speaker and Panelist



Dr. Elmier Apolinario receives his Plaque of Appreciation as Guest Speaker and Panelist



Mr. Shahid Iqbal, from Pakistan discusses the Corporate Social Responsibility towards Business Continuity Overview. Case Study of Popular Pipes Group of Companies Pvt Ltd.



EnP. Jessie Christopher Lapinid, from CPDO of Zamboanga City shares the Overview of Zamboanga City Hazards Impact



Signing of Contract, From L-R: Prof. Dr. Shaker Mahmood; Professor/Chairman City & Regional Planning Department, University of Engineering & Technology, Lahore-Pakistan, PLANADES President Prof. Dr. Mark Anthony Morales, and Prof. Dr. Tabassam Raza, Executive Director of PLANADES and Professional Lecturer II, UP SURP



Participants attentively listen during the IC-NCPCSDS International Conference.



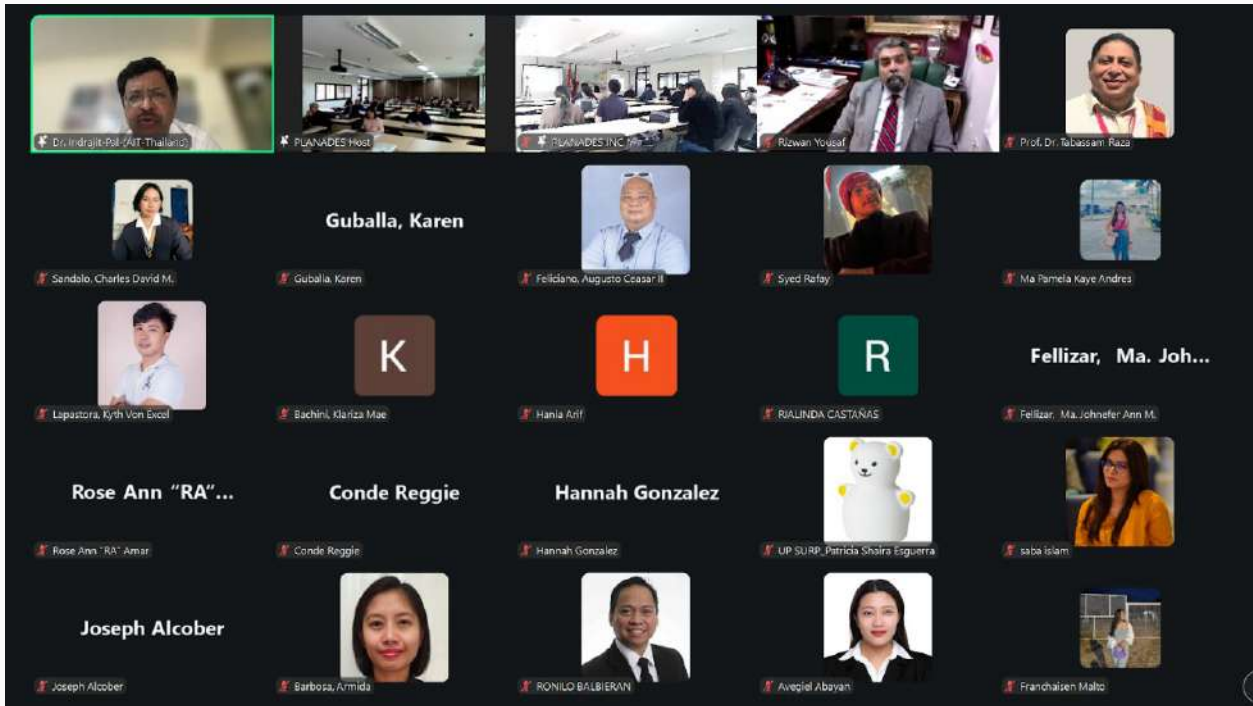




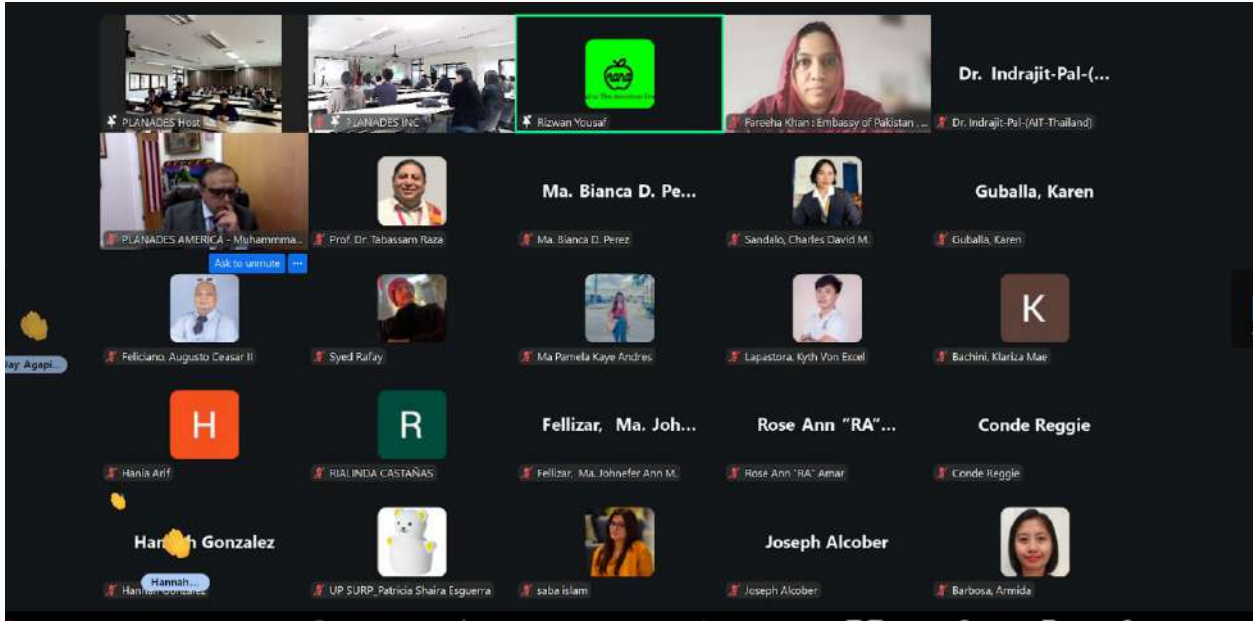
Group photo of face-to-face participants



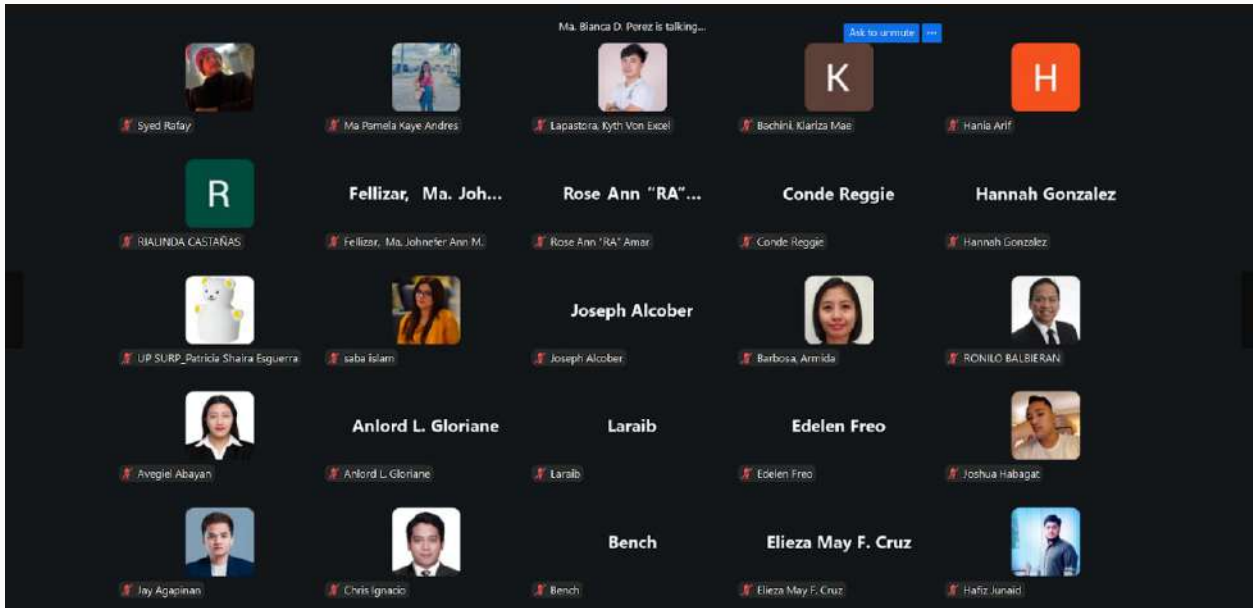
Student Presenters from the Pamantasang Lungsod ng Marikina (PLMar) with their Professor Prof. Dr. Tabassam Raza



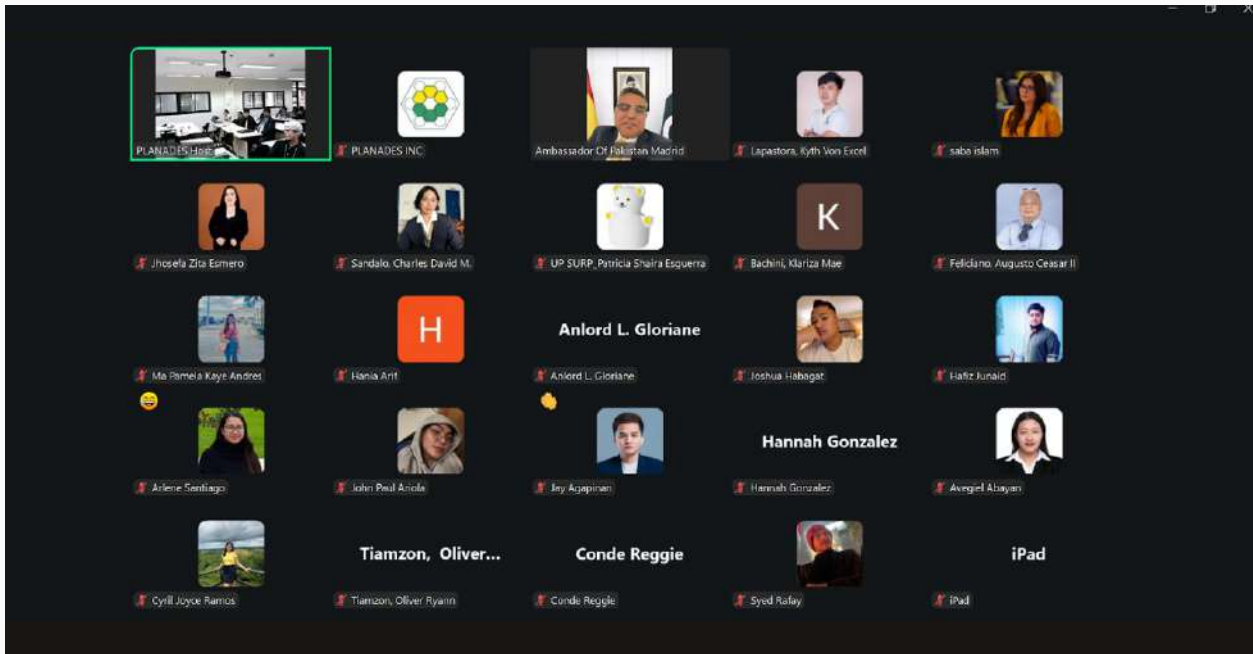
Screenshot showing the first group of online participants.



Screenshot showing the second group of online participants.



Screenshot showing the third group of online participants.



Screenshot showing the fourth group of online participants.



Dr. Engr. Tabassam Raza delivers the synthesis of the IC-NCPCDS and prepares to officially close the event.



Website: <https://planades.org/>
 Email: info@planades.org



<https://planadesamerica.org/>



HOME ABOUT US ▾ OUR WORK ▾ SERVICES CCDRM UNIT CAREER OPPORTUNITY CONTACT US SATELLITE OFFICES ▾ SBBANK WEBCOLLECT



Planning and Development Research Foundation, Inc. (PLANADES)

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.

**WE PROVIDE
BEST SOLUTIONS TOWARD
ENVIRONMENTAL SUSTAINABILITY**

[LEARN MORE](#)

**IMPROVING THE QUALITY
OF LIFE OF PEOPLE IS
OUR PRIDE AND INSPIRATION**

<https://planades.org/> 02-83325034 / CP #: +63 917-7013833 info@planades.org

INTERNATIONAL PARTNERS AND SUPPORTS:



DPM
Disaster Preparedness,
Mitigation and Management



VOLUNTARY COMMITMENTS
SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030