

Changing MAPS, Bridging GAPS

Workshop on the Environment

UP CIDS, November 21, 2011

Review of UP Funded Research on the
Environment: *Community Planning and
Governance Concerns, Research Gaps ,
Research Directions*

By Maria Lourdes G. Rebullida, DPA



Objectives

In line with the objectives of this event, this presentation attempts to:

- review the UP OVCRD initial list of faculty funded research;
- examine the dimensions of community planning and governance in the selected/sample research projects;
- explore the gaps in research on the subject of environmental governance.

UP LIST

UP Faculty engaged in research on the environment with indications of community, community planning, and governance concerns in the research titles:

- Number of UP Faculty – 24
- Number of Faculty by UP Campus
 - UPB – 1
 - UP Cebu - 2
 - UPD
 - ENG ICE – 2
 - ENG GE – 1
 - CS-MSI – 5
 - SURP – 6
 - CS NIGS – 1
 - CSWCD – 2
 - ARCHI – 1
 - ASP – 1
 - OU - 1
- UP Min – 1

Research Focus- Environment, Natural Resources, Climate Change Topics (indicated by titles)

Number of Research Projects in UP List

- Climate Change – 17
- Air Quality – 2
- Water Resource – 4
- Water Quality - 1
- Solid Waste Management – 2
- Transport, Traffic Emission – 2
- Coastal Enhancement – 2
- Hurricane Resilient Housing Features - 1



Research Sites and Focus

- Baguio City - climate, policy interventions, local governance
- Metro Cebu –air quality and climate change mitigation
- Metro Manila – traffic and transport
- Angat, Angat Reservoir – modeling (stochastic process, autoregressive model, optimization-simulation)
- Barangays Talisay and Balibago, Calatagan, Batangas – water quality
- Coastal areas and inland communities – local government planning and development; climate change adaptation
- Forest areas – local government planning and development
- Philippines- solid waste management; traffic, transport and emissions
- Asia – solid waste management; adaptation of fishing communities to climate change



Research Themes

- Policy interventions
- Institutional capacity
- Local governance
- Practices
- Modeling
- Impact assessment
- Mitigation strategies
- Adaptation strategies



Review of Sample Reports

- Types of reports submitted by the faculty in the UP List
 - Abstract
 - Paper presented in a conference, workshop, forum
 - Research report
 - Proceedings of conference, workshop, forum

Research Report: Integrated Solid Waste Management for Asia (Mario de los Reyes and Kristine Follosco-Aspiras, UPSURP)

- Case studies were presented during the Thematic Panel Discussion held in the Philippines, with SURP as one of the organizers. The panel discussion report was submitted to the UP OVCRD.
- Cases from the Philippines showed the involvement of stakeholders: an LGU and a national government tertiary hospital
- Makati City Solid Waste Management Program
 - Public private partnership in Makati on municipal waste program
 - Enforcement of legislation, innovative community based waste reduction projects by the LGU
- Health Care Waste Management at the Philippine Heart Center
 - Best practices

Research Report: Community-based Adaptation of Farmers in the Philippines to Climate Change

(Maria Rebecca A. Campos, UPOU)

- The study describes the:
 - farmers demographic and socio-economic characteristics, the production and profitability of farming products; and,
 - losses resulting from typhoons, floods, droughts; the pests and diseases
- The Bridge Financing Scheme is proposed to help farmers recover from losses.
- Note: The abstract does not mention how the farmers adaptation process was undertaken.



Research Report: Adaptation of Fishing Communities in the Philippines to Climate Change

(Maria Rebecca Campos, UPOU)

- The abstract states that:
 - Fisheries sector employment are in aquaculture operations, commercial fishing, marine and freshwater municipal fishing.
 - Coastal areas and islands will be hard hit by combination of rising sea levels and more intensive oceanic storms as typhoons and hurricanes.
 - Few studies have been conducted on the possible impact of climate change in Southeast Asia despite the fact that commercial and subsistence marine and freshwater fisheries and aqua culture are important for the food security and economies of many countries in the region.
- Note: The abstract does not mention the fishing communities' adaptation process.

The Rights-Based People's Social Protection Agenda: Interweaving Social, Gender, and Environmental Justice (Rosalinda Pineda Ofreneo, CSWCD)

- Presents the People's Social Protection Agenda as the product of a participatory and consultative process; as a consolidation of different views of stakeholders—informal workers associations, trade unions, women's groups, church based and business groups, civil society organizations, academic institutions.
- Emphasizes the use of CD theory and practice—communities can defend themselves against catastrophic risks through participatory disaster risk reduction and management structures.



Strengthening the Philippines' Institutional Capacity to Adapt to Climate Change

(Carlo Primo C. David. UPD-CS-NIGS)

- UN agencies work together on inter-agency planning and management systems with national and local partners
- The programme seeks to assist the Philippines in addressing strategic issues affecting the achievement of MDGs by pursuing three outcomes:
 - climate risk reduction mainstreamed into key national and local development plans and processes;
 - enhanced national and local capacity to develop, manage, administer plans, programmes and projects addressing climate change risks; and,
 - coping mechanisms improved through pilot demonstration adaptation projects.

Analysis of water quality in relation to solid waste management practices in barangays (villages) Talisay and Balibago, Calatagan, Batangas, Philippines
(Del Mundo, D.M.N)

- The study seeks the relationship of water quality with solid waste management practices in the coastal barangays as possibly affected by households' socio-economic condition, environmental awareness, knowledge and perception.
- It used multi-method research design – survey, ocular inspection, water sampling, key informant interviews.
- Both creeks in the barangays were polluted but one has better water quality than the other, possibly influenced by the variables.



Studies on the Angat Reservoir

- ARMA Modeling of a Stochastic Process Appropriate for the Angat Reservoir
- Validating the Autoregressive Model of the Angat Research Monthly Flows
- By: Cornelio Q. Dizon, UP Eng-ICE
- Shows results of stochastic modeling derived from 36 years of historical data on Angat Reservoir inflows.

Studies on Climate Change and Disaster Risk Management

- UNESCO Regional Workshop on “Hydro-Meteorological Disaster Risk Reduction and Climate Change Adaptation for Coastal and Small Island Communities (Emmanuel Luna, UPD-CSWD)”
 - Three year project “Strengthening Resilience of Coastal and Small Island Communities towards Hydro-meteorological Hazards and Climate Change Impacts” in the Philippines, Indonesia, and Timor Leste.
- Documenting Climate Smart Disaster Risk Management Uptake in San Francisco, Camotes, Cebu
 - Integrate disaster risk reduction, climate change adaptation and development, forming pillars for strengthening climate resilience in developing countries – India, Bangladesh, Sri Lanka, Nepal, Kenya, Sudan, Tanzania, Cambodia, Indonesia, Philippines



Studies on Air Quality

- Assessment of Air Quality as Initiative for Climate Change Mitigation in Metro Cebu, Philippines
(J Sinogaya, R Galapate, E dela Rosa, Z Oppus, UP Visayas Cebu College)
 - transport and dispersion of air pollutants affected by climatological variables
- Estimating Traffic and Emissions for Various Scenarios of Freight Vehicle Restrictions in Metro Manila
(J Castro, M de los Reyes, UPD- SURP)
 - Traffic and environmental impacts of freight vehicle restrictions in major streets in Metro Manila (assessment of effectiveness).

Study on Hurricane-resilient Housing

- Case study examines selected samples of tropical vernacular houses to identify common characteristics and varieties of tropical architecture that resist or are resilient under tropical storms.
- Phase I study, on housing features that can endure intense cyclonic loading and the features that are typhoon resistant, will lead to next phase of designing and modeling.

Initial Comments on the Reports

- The studies are descriptive and evaluative.
 - Description of the pollutants on air and water such as in the areas of Metro Manila and Metro Cebu.
 - Planning, monitoring, evaluation of climate change disaster risks and risk management interventions.
 - Learning from best practices, such as in solid waste management and in the use of indigenous vernacular housing features to cope with intense cyclonic conditions.
 - Analysis of historical stream flow records (36 years) and modeling, such as in the case of the Angat reservoir studies.
 - Descriptions climate change conditions and implications for communities of farmers, fisherfolks, villages.
- Community participation, planning, and other modalities were not elaborated.
- Governance had not been explicitly examined.

Research Gaps

- The studies described the environmental condition, climate change issues, scenarios; effects and impact on the study areas, on the communities.
- However, the studies did not present:
 - how the communities and other stakeholders were engaged/involved; what processes of engagement (collaboration, partnership, etc) were undertaken and how;
 - how the community planning was done; what planning and development had been done;
 - what governance consisted of ; what it meant; how this was done.
- Possibly, there are studies done by UP faculty, not funded by UP and not included in the UP research list, that may have examined governance and community participation for specific aspects of the environment and climate change.

Suggestion: Explore Research Directions and Initiatives on Community Participation and Governance

EXAMPLES:

- Strengthening Community-Based Initiatives on Biodiversity ...

SGP supports activities of non-governmental and **community-based ... studies** by GEF -SGP as well as ... and parcel of **biodiversity conservation in the Philippines ...**

sgp.undp.org/web/projects/7250/strengthening_community... – Cached

- Community-based conservation in a globalized world

... **community-based conservation** as a ... The **study of conservation** in a multilevel world can serve to inform an ... **Biodiversity conservation** can be treated as ...

www.pnas.org/content/104/39/15188.full

Explore Research Directions and Initiatives...

EXAMPLES:

- **Resilience to Climate Change: the Community-Based Adaptation ...**
Related contents: Traditional Knowledge and Adaptation to **Climate Changes** in Sunimarca , Perú; The linkages between biodiversity, **climate change** and sustainable land ...
agrobiodiversityplatform.org/climatechange/2010/10/27/... - Cached
- **Community Based Adaptation | Climate Change | International ...**
Climate change is set to significantly impact people and the environment. Rising temperatures will **change** crop growing seasons and impact food security.
www.iied.org/climate-change/key-issues/community-based... - Cached
- **14573IIED: Community-based adaptation to climate change ...**
This special issue focuses on recent approaches to **climate change** adaptation which are **community-based** and participatory, building on the priorities, knowledge, and ...
pubs.iied.org/14573IIED.html - Cached
- **IRIN Global | CLIMATE CHANGE: Community-based adaptation in ...**
JOHANNESBURG, 26 April 2011 (IRIN) - Nepal has become one of the first countries to consider scaling up **community-based** adaptation (CBA) to **climate change** and making it ...
www.irinnews.org/report.aspx?ReportID=92585 - Cached

Explore Research Directions and Initiatives on Governance

EXAMPLES:

- **how can citizens affect environmental policy at each level of government; local, state, and national?**

[<http://www.environmental-protections.info/environmental-policy/how-can-citizens-affect-environmental-policy-at-each-level-of-government-local-state-and-national/>](http://www.environmental-protections.info/environmental-policy/how-can-citizens-affect-environmental-policy-at-each-level-of-government-local-state-and-national/)

- **Current State of Global Environmental Governance**

This research project shares a conviction that traditional national policy and international diplomacy are no longer sufficient, either in pace, scope or substance. Retarding and reversing the damage that we are already inflicting on our environment requires an unprecedented, coordinated, long-term effort involving ambitious, innovative, and flexible coalitions of state and non-state actors, especially non-governmental organizations that tap into the resources, knowledge, and activism of citizens.

[<http://www.environmentalgovernance.org/research/>](http://www.environmentalgovernance.org/research/)



UP Strategic Research Directions

- Establish the UP database.
- Engage UP faculty in an environmental research network across colleges and campuses.
- Identify the aspects of environmental research – biodiversity, climate change, etc. and focus on community involvement and governance; and, develop a strategic research framework.
- Establish linkages with external stakeholders that can put research evidence to policy, planning, and application.
- Disseminate scientific data to stakeholders.

Workshop Guide for UP Participants

(Focus on community and governance issues)

1. Do you have research undertakings in your college and campus that have not been uploaded to the UP (OVCRD) database (not yet in the current database)? Why?
2. What are the areas for research on the environment that have not been addressed? How can we address the gaps? In particular, how can concerns about community participation and governance be addressed by UP research initiatives?
3. Given the available research database, what can we do to prepare policy papers/policy briefs? What can we prioritize?
4. Considering the state of UP research and database, and research gaps on the environment, what themes can we suggest for collaborative engagement?