

# The Changing Roles of the University amidst Climate Change: The UP Baguio Experience

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# Introduction

- Climate Change is largely an effect of anthropogenic causes
- “Unsustainable” development models and practices are largely the work of the schooled/educated people: those with PhDs, engineers, architects, economists, business owners and managers.
- Universities are part of the problem
- Universities can also be part of the solution

# Objectives

1. Illustrate UP Baguio's initiatives on climate change adaptation, DRRM and sustainable development
2. Discuss the key principles and concepts that guided the initiatives
3. Identify major lessons learned
4. Determine the ways forward

# UP Baguio's Context



A Constituent unit of the University of the Philippines system (a relatively young CU)



An Arts and Sciences University



Mandated to serve the Cordillera and northern Luzon



Situated in an upland ecosystem with growing problems in resource management and vulnerability





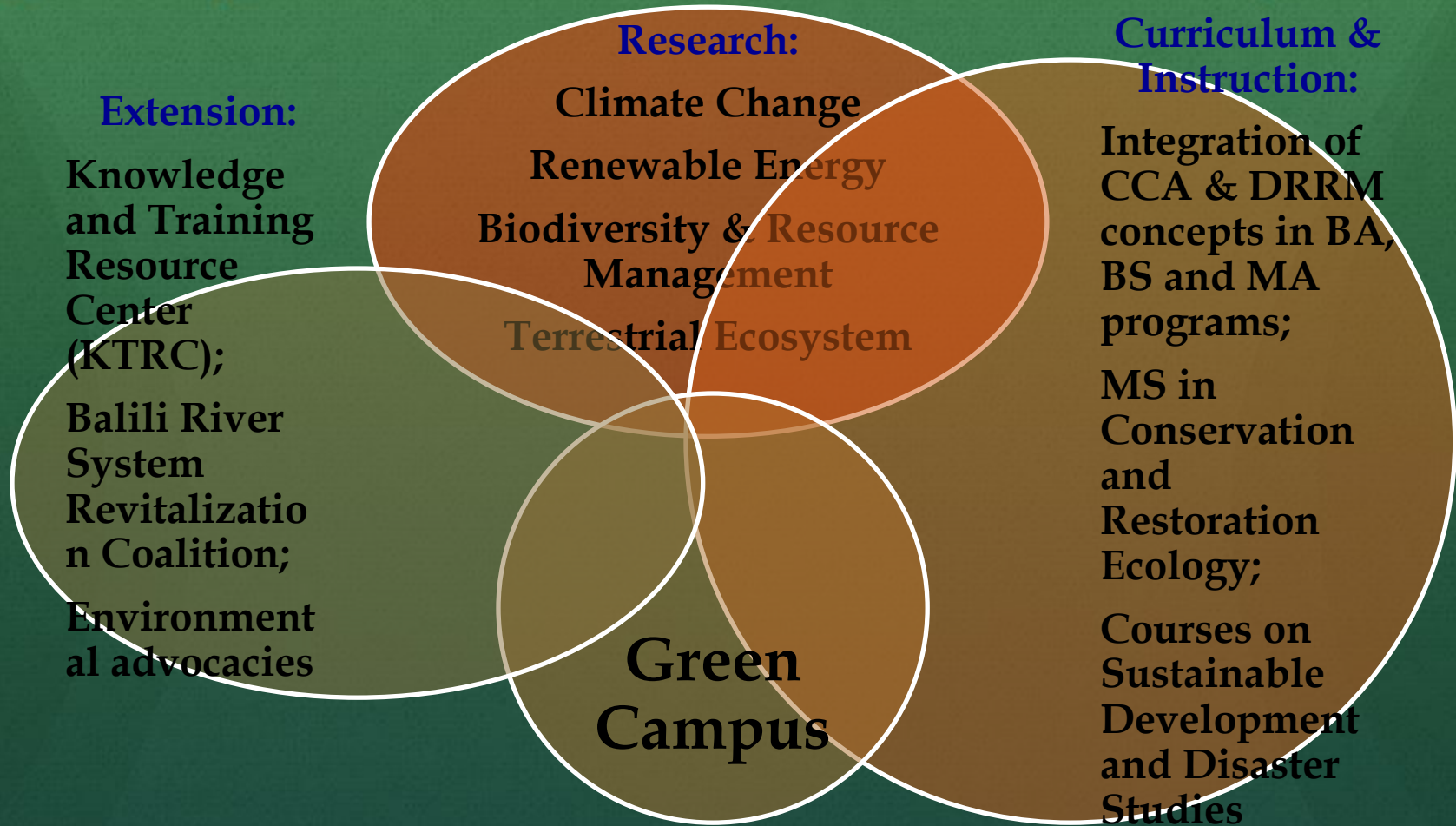
Community Engagement

Research

Teaching

The triple roles of the University

# Holistic and Interdisciplinary Approach: e.g. Climate Change and Sustainability Science



# Challenges for innovation in the academe

- **Complex** in that they deal with social, cultural, political, economic, aesthetic, scientific, technological, and ethical dimensions;
- **Contested** and **Controversial** in that there are different perspectives on a particular issue;
- **Emergent** in that our understandings of the issue may change over time;
- Characterized by **uncertainty** and **risk**, i.e., we do not know everything about a situation (knowledge is fallible);
- **Contextual**, in that issues vary in different contexts.

# Green Campus Policy

Approved by UP Baguio's University Council, this comprehensive policy contains guidelines in ALL areas of academic, administrative and campus infrastructure/physical plant development.



# Curriculum Development and Instruction

- Conducted the University Sustainability Assessment Tool (USAT)
- Reviewed the Master of Arts in Social and Development Studies (MASDS)
- Instituting a course on Climate Change and Disaster Studies
- Establishing the Master of Science in Conservation and Restoration Ecology (MsCARE)

# Principles for innovations in CURRICULUM DESIGN

- Developing a more **holistic view of knowledge**- showing how different disciplines complement each other/add value to each other
- Generating new forms of knowledge through **multi-disciplinary, inter-disciplinary and trans-disciplinary approaches** to research and learning
- Developing a more **situated approach to knowledge**, and seeking out the relationships between culture, knowledge and social changes
- Recognizing the **fallibility of knowledge**
- Developing a **reflexive** (evaluative and practical) approaches to working with knowledge; and
- Prioritizing **responsible** and **ethical** applications of knowledge.

# Research

- Established the Climate Change Program and Sustainability Science Program under the Cordillera Studies Center- this became the blue print for CCA and DRRM projects and activities at UPB
- Carried out action-research projects in partnership with the UN World Fund Program such as...

# UNWFP –supported projects

- **Enhancing stakeholders' capability in utilizing the rainfall threshold in the landslide early warning system of Tublay, Benguet (September 2012-August 2013)**
- **Spatial distribution, vegetation pattern analysis and soil stabilization through revegetation of natural landslides in Atok, Benguet Province to increase resilience of local communities (January-August 2013)**

# Innovations in research require...

- **Re-orientation of epistemology (our ways of knowing)**

**addresses the complex and dynamic interactions between nature and society (socio-ecological systems)**

**e.g. “Sustainable Science.”**

- **Re-orientation and broadening research methodologies.**

**Greater acknowledgement of the need for a more **pluralist** approach to knowledge generation. This requires the use of **diverse** research methodologies and more **reflexive** approaches.**

- **Re-orientation of research purposes and outputs-**

**May include a renewed commitment to research that **empowers** all of members of society to make informed decisions. This implies contributing information, options and analysis that facilitates processes of **social learning**.**

- **Using research results effectively and ethically**



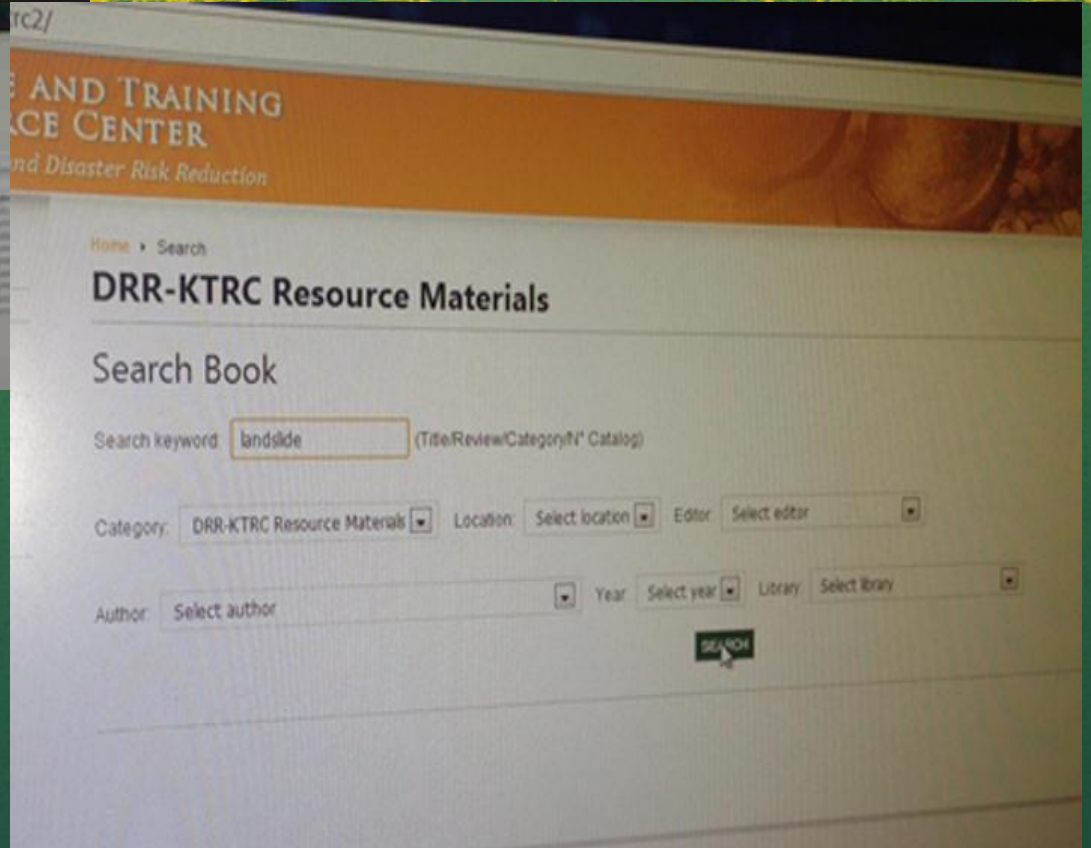
# Community Extension and Public Service: the case of the KTRC



# SPECIAL COLLECTION



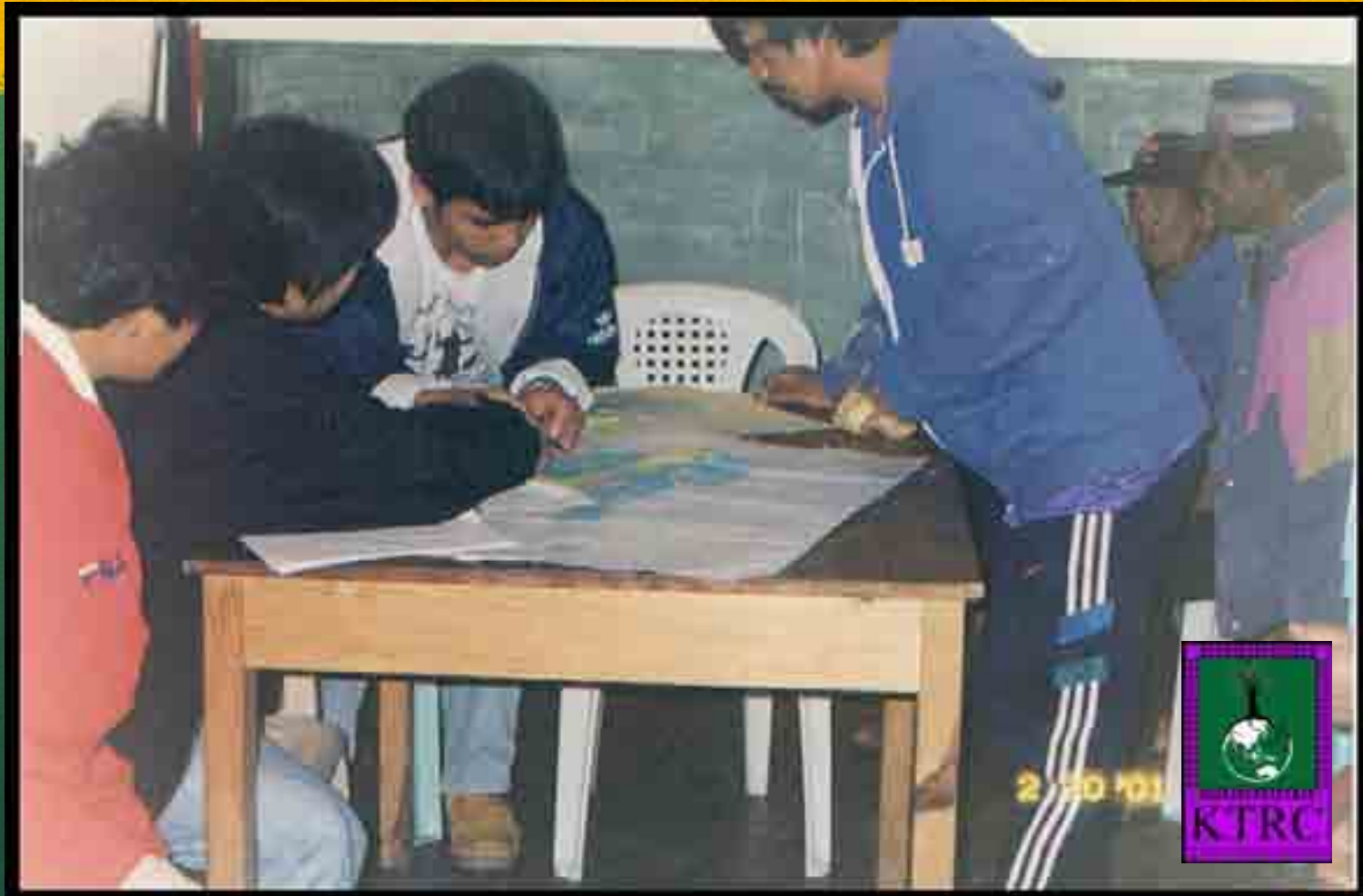
# DATA BASE



# ACTION-RESEARCHES



# CAPACITY BUILDING





# POPULAR EDUCATION



## Earthquake

An earthquake (also known as a quake, tremor or temblor) is the result of a sudden release of energy in the Earth's crust that creates seismic waves. The seismicity, seismicity or seismic activity of an area refers to the frequency, type and size of earthquakes experienced over a period of time.

### 10 TIPS

1. Protect yourself first. Duck, Cover and Hold (DCH).
2. Keep calm. Check all fire sources that are lit quickly.
3. Don't panic. Panic may cause you injuries.
4. Make sure you have ways out. Open doors and windows. Have a visible evacuation plan. Check personal belts.



EMERGENCY NUMBER:

\_\_\_\_\_

## JULY 2014

mon	tue	wed	thu	fr	sat	sun
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

5. Keep away from glass panes and walls.
6. Stay away from fires.
7. Get the right information. Take the right action.
8. Make sure your family and neighbors are safe.
9. Work together on rescue and first aid.
10. Make sure electricity and gas lines are off before evacuation.



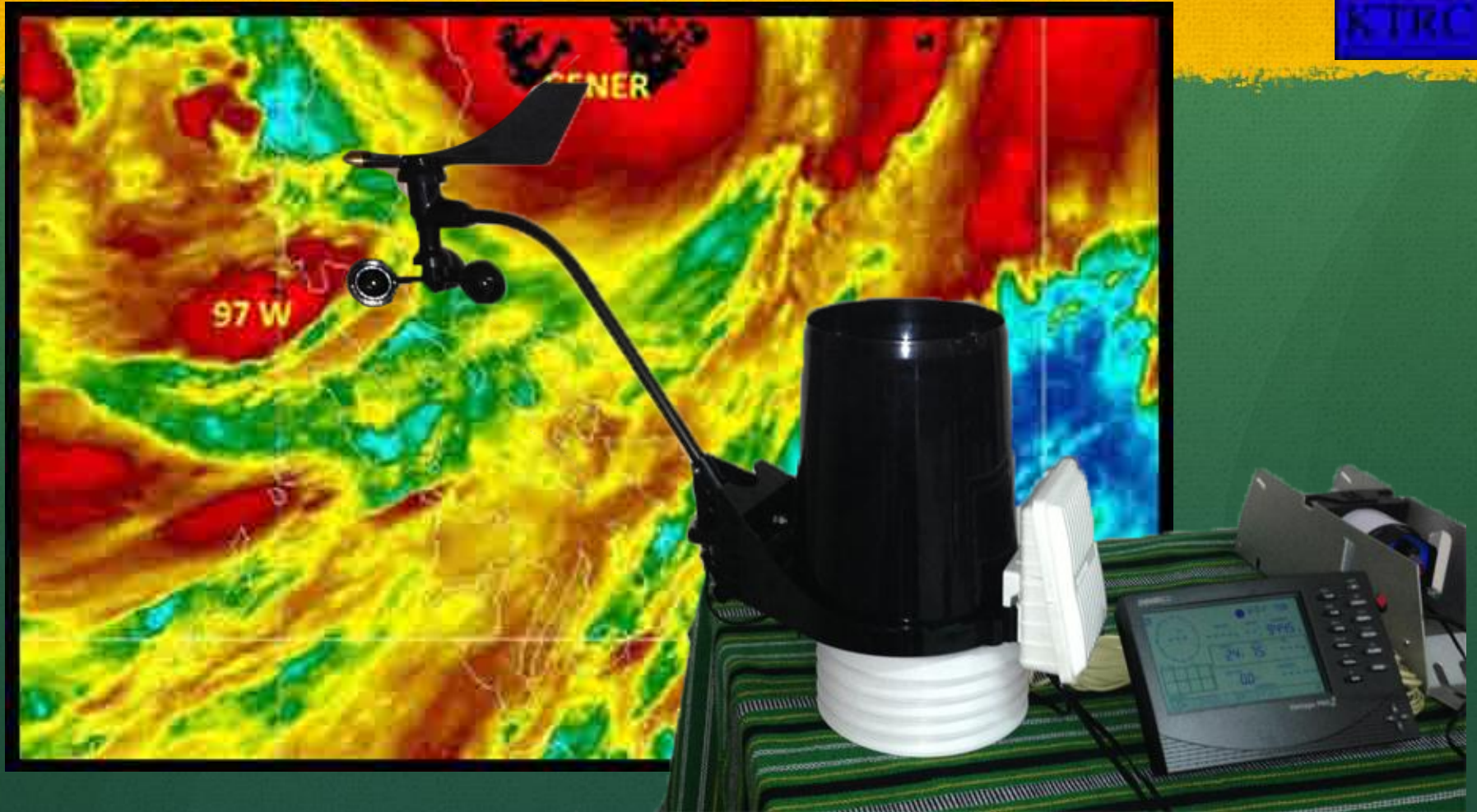
### IMPACT OF THE JULY 16, 1990 EARTHQUAKE:

The popular tourist destination of Baguio City, situated over 5000 feet above sea level, was among the areas hardest hit by the Luzon earthquake. The earthquake caused 28 collapsed buildings, including hotels, factories, government and university buildings, as well as many private homes and establishments. The quake destroyed electric, water and communication lines in the city.

## Comics sample spreads



# AUTOMATED WEATHER SYSTEM





# Lessons learned

- **There is a strong case for closer links between teaching, research and community engagement work in response to climate change and disasters;**
- **Values, ethics and professional ethics are central to the change processes;**
- **Innovations in curriculum and research touch on issues of multi-disciplinarity, inter-disciplinarity and trans-disciplinarity.**

# Lessons Learned

- Institutional change is effective IF there is a coherent, consistent and consensual action by ALL stakeholders of the University: administration, faculty, students, staff, alumni and supporters (e.g. funding agencies)

# Ways forward

- Complete the ongoing efforts in the three functional areas
- Consolidate the gains by evaluating the completed projects and drawing lessons from them
- Replicate and customize the good practices to other areas in the Cordillera region
- Upscale academe-based initiatives by linking/networking with other higher education institutions in the Cordillera region and the nation

# Conclusion