

LOCAL GOVERNMENT INITIATIVES TO CLIMATE CHANGE ADAPTATION: A CASE STUDY OF ALBAY, PHILIPPINES

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The province of Albay has been exposed to climate hazards such as tropical cyclones. Aggravated by natural disasters such as volcanic eruptions, flash floods and mudslides, the lives of the Albayonons are highly at risk. The coastal areas are also exposed to sea level rise and storm surges. Communities living along the coastline and in the uplands must be prepared to meet the challenges to their environment, livelihood, and homes. These could worsen as a result of climate change.



"Think Global Warming. Act Local Adaptation" - PGA

Local Initiatives for improving resilience to climate change

The Provincial Government of Albay (PGA) unanimously proclaimed the first and pioneering prototype for local Climate Change Adaptation, launching the *Albay in Action on Climate Change (A2C2)* and embedded disaster risk reduction to promote climate-proofing and disaster-proofing of development.



Two cases on some climate hazards that has taken millions of lives and millions of dollars in livelihood and natural resources experienced by the Albayonons and their corresponding local adaptation strategies:

Case 1: 2006 Typhoon Reming and Mudslides

Typhoon Reming (International Name: Durian), hit on 30-November, was the most destructive typhoon that hit the country in 2006. Most of the severely affected areas are coastal and farming municipalities and towns located around the periphery of Mt. Mayon. The casualties and damages to Albay Province alone is presented in Table 1.

Typhoon Reming Facts and Figures	
Number of Families Affected	204,991
Number of Persons Affected	1,079,891
Casualties	1,478
Total Damages (in pesos)	1,519,411,829

Source: NEDA Media Report as of December 16, 2007 (www.neda.gov.ph)

Among the most marked damages is the mudslides that wiped out the entire barangay of Maipon, Albay (one of the several towns affected) (Figure 2) and the local communities found means to adjust and make use of the available resources. They started a business of hauling rocks and sand (Figure 3) for various uses such as landscaping, infrastructure development, stone carving (Figure 4), among others.



Figure 2



Figure 3



Figure 4

Case 2. Bleaching and Pest Infestation of crops

Some of the consequences of temperature change observed by the provincial agriculture office:

(a) Bleaching of Caragamoy (*Pandanus simplex*) leaves;

(b) Severe infestation of Black Rice Bug in rice, Waya-waya in corn, and Bunchy Tops in abaca and now attacking corn. (Increase in the occurrence of pest have been predicted by IPCC, 2001)

Two of the most important livelihood of the communities - its handicraft industry using materials mentioned above (i.e. Caragamoy, Abaca, bamboo, and rattan); and agriculture mainly dependent on corn and rice, is the most affected.

The provincial government can make use of its Albay Integrated Agricultural Rehabilitation Program (AIARP) to find solutions to this problem and identify the most suitable adaptation strategies for the local people i.e. conduct of further studies on potential strategies such as crop diversification and genetic modification.

Local Initiatives on Climate Change Adaptation

Albay has been playing a pro-active role especially its local government unit (LGU) in promoting climate change adaptation. The National Conference on Climate Change Adaptation (NCCCA) with the Albay Declaration on Climate Change Adaptation aimed at catalyzing mainstreaming climate change into local and national development policies.



www.nccca.org.ph

Components:

- (1) Information, Education and Communications
- (2) Programs and Projects

LINIS KALOG or the Linis Kanal at Ilog (Clean-up of Rivers and Creeks) aims to promote environmental conservation and at the same time is a "food for work" program for river cleanup in two cities and one municipality (Legazpi and Tabaco City; and Daraga);

AIARP (Albay Integrated Agricultural Rehabilitation Program) establishes farm clusters to assist farmers and fisher folks in their agricultural needs, food assistance, technological needs and training needs;

Barangay Level Composting aims to reduce the volume of garbage dumped at the land fill and process the compost into organic fertilizer thus reducing methane emissions from agricultural lands;

Palanog Cement Factory (Business Sector) is practicing the substitution of fossil fuels by rice hull;

LULUCF Programs by conducting various reforestation and mangrove tree planting activities; and

CRABS (Cagraray, Rapu-Rapu, Batan and San Miguel) is a learning and development project in these three towns aimed to develop these three ecotourism sites while sustaining the environment.

(3) Policies

SP Resolution 2007-04	(August 8, 2007); Proclaims climate change adaptation as provincial policy All behavior, projects, programs grants of license and permits should be consistent with adaptation
SP Appropriation Ordinance 2007-01	(September 12, 2007); Supplemental Budget Identifies A2C2 as a budgetary item and with corresponding funding for activities
SP Ordinance to strengthen Sec.48. Item 3 Chapter 6 of RA 9003	Solid Waste Management Law Banning "open burning" and provides local mechanism for enforcement; Training of barangay tanods to record in barangay logbook any violations
SP Ordinance 2007-51	Updating and review of Comprehensive Land Use Plan (CLUP) for disaster risk reduction and climate change adaptation. Reorganization of Provincial Land Use Committee under Provincial Executive Order 2007-07. Reorganization of CLUP Technical Working Group under Provincial Executive Order.
Albay Declaration on Climate Change Adaptation	(October 2007, 1 st NCCCA) Resolutions: prioritize climate change adaptation in local and national policies; promote "climate-proofing" development; advocate the creation of oversight bodies in the government; mainstreaming of climate change through local and regional partnerships for sustainable development; IEC;R & D; source out funds for activities and programs that will directly benefit local communities; promote environmentally sustainable practices. (Resolutions has been passed to the Philippine Congress to adopt the declaration as a framework for mainstreaming climate change in the country)

Current Step: Institutional effort

Center for Initiatives and Research on Climate Adaptation (CIRCA): a joint venture of the Provincial Government of Albay together with the Environment Management Bureau (EMB), World Agroforestry Centre (ICRAF) and Bicol University (BU).

National Government supports local initiatives on climate change adaptation

The Philippine government has adopted the Philippine Agenda 21 and the Millennium Development Goals for environmental sustainability; and created the Philippine Council for Sustainable Development (PCSD), the Inter-Agency Committee on Climate Change (IACCC), the Advisory Council on Climate Change (ACCC), and the Presidential Task Force on Climate Change Adaptation and Mitigation (PTFCC). The President has made Green Philippines as one of the "8 in 8" priorities. As an offshoot of the NCCCA, the local initiative of Albay on climate change adaptation is being replicated in different provinces around the country. The national government is now taking steps to address climate change i.e. policies and programs. In fact, several resolutions have been passed and several bills have been filed on climate change adaptation.



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