

CLIMATE CHANGE ADAPTATION PRACTICES IN AGRICULTURE, FISHERIES AND NATURAL RESOURCES AMONG THE INDIGENOUS PEOPLES IN REGION 02, NORTHERN PHILIPPINES

**MANUEL S. TAN JR.,Ph.D.
Cagayan State University
Tuguegarao City, Cagayan
February 2014**



Study funded by the Department of Agriculture- Agricultural Training Institute



STUDY OBJECTIVE

To document the Indigenous People's (IP's) knowledge, systems and practices relating to agriculture, fisheries and natural resources management under extreme weather condition (i.e. flood and drought).



METHODOLOGY

1. Secure Free & Prior Informed Consent (FPIC) through consultative meetings with tribal members.
2. Data collection from key informants through Focus Group Discussion (FGD)
3. Validation of findings through in-situ immersion in respondent communities.
4. Data analysis employed descriptive statistics and relevant performance metrics (qualitative and quantitative).



DATA GATHERED

- Crops- staple crops, alternate, season/s when grown, etc.
- Farming technology- production management, post-harvest practices, organic farming practices, etc.
- Fishery practices
- Environmental protection and management practices.



STUDY AREAS AND COVERAGE

Of the 24 IP groups in Cagayan Valley, 17 consented to participate in the study

Province	IP Group	Province	IP Group
Batanes (1)	Ivatan	Nueva Vizcaya (7)	Ayangan
Cagayan (5)	Agta	Nueva Vizcaya (7)	Bugkalot
	Applai		Gaddang
	Ibatan		Ibaloi
	Itawes		Isinai
	Malaueg		I'wak
Isabela (4)	Calinga		Kalanguya
	Ibanag		
	Kankanaey		
	Yogad		



THE IP'S OF CAGAYAN VALLEY (REGION 02)



Aetas with their rattan produce



Applai logpuller



Ayangan charcoal-making facility



Poor transport facilities of the Ibatans of Babuyan Claro



Kaingin area of the Itawes



Bugkalot mountainside gardens



Coconut crab of the Ibatans of Batanes



Isiniais of Domang, Dupax del Sur



Findings

1. Most have abandoned their traditional farming systems and have shifted to commercial farming (intensive farming system) where they maximize their production while the weather is fine. This way, they build up a buffer stock in ready preparation when droughts and floods come. In the process, however, they are not mitigating climate change but making it worse. But this is how they are adopting to climate change.



Findings

To illustrate, of the 17 IP groups, 11 exhibited moderate to heavy reliance on farm mechanization and the usage of commercial farm inputs. Monocropping predominates with either rice or corn as primary crop. High farm productivity with average farm yield of from 100 to 120 cavans of palay per hectare.

1.1 Some outstanding features:

- the Kankanaeys' strong and progressive cooperative organization



Findings

- The wide variety of herbal medicines and pesticides of the Bugkalots.
- Intercropping of vegetables with rice of the Ibalois.

1.2 Recurring Problems:

- Land tenancy
- Depletion of groundwater
- Absence of irrigation facilities
- Poor infrastructure



Findings

2. The six (6) remaining groups are geographically isolated and inaccessible. They have largely kept their old farming & fishing practices intact.

2.1 For the two island communities:

- Ivatans (Batanes) have surplus production of rootcrops but no market
- Ibatans (Babuyan Claro) have very rich fishing grounds and abundant fish catch with no market outlet due to inaccessibility.



Findings

2.2 For the three groups found in mountainous communities:

- Strong potential to increase production but very poor infrastructure facilities
- Vast upland production areas but with inadequate production inputs



Findings

2.3 The Agtas are the most effective IP group in climate change mitigation with the minimal usage of fossil fuels and commercial farm inputs. **Also the least productive among all the groups.**



Findings

3. All IP groups are receptive to environment friendly, climate change mitigating and adaptive agriculture **if only** there are organic farm inputs which can equal the efficacy of commercially prepared ones.



POLICY DIRECTIONS TO IMPROVE CLIMATE CHANGE ADAPTATION AND MITIGATION

1. A strategy developed for the large scale expansion, development and stronger advocacy of organic food and farming, including technical support and market development, system of accreditation and inspection and price support facility with a parallel approach to improve non-organic farming;
2. Strengthen R & D efforts toward the production of farm inputs (e.g. fertilizers, pesticides and herbicides) with less carbon footprints (i.e. organic or hybrid) with efficacy rating equivalent to or approximating those of commercial type of farm inputs;



POLICY DIRECTIONS TO IMPROVE CLIMATE CHANGE ADAPTATION AND MITIGATION

3. Active advocacy of fuel efficient farm machineries;
4. R&D on the processing of rootcrops and other rice alternatives to improve their palatability and taste to equal rice and other staples;
5. Encourage the wider usage of composting, green manures, deep-rooting plants, inter-cropping, varietal mixtures and usage of food industry and municipal organic waste matter.



POLICY DIRECTIONS TO IMPROVE CLIMATE CHANGE ADAPTATION AND MITIGATION

6. Enable island communities to rationally exploit their fishery resources by providing the facilities and know-how on deep sea fishing.
7. Stricter enforcement of “log ban” in areas where “kaingin” or swidden farming continues.



“DIOS TI AGNGINA!”
THANK YOU!

