

Spatial Patterns of Poverty and Human Well-being in Bicol Region, Philippines

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Faces of Poverty



Poor health, Malnutrition and Lack of Education

Faces of Poverty



**Lack of Access to
Electricity/Fuel**



**Lack of Access
to Water**



**Poor Sanitation and
Waste disposal**

Faces of Poverty



Access to land



Demographic Structure

Research Problem

- According to a recent view from the World Bank:

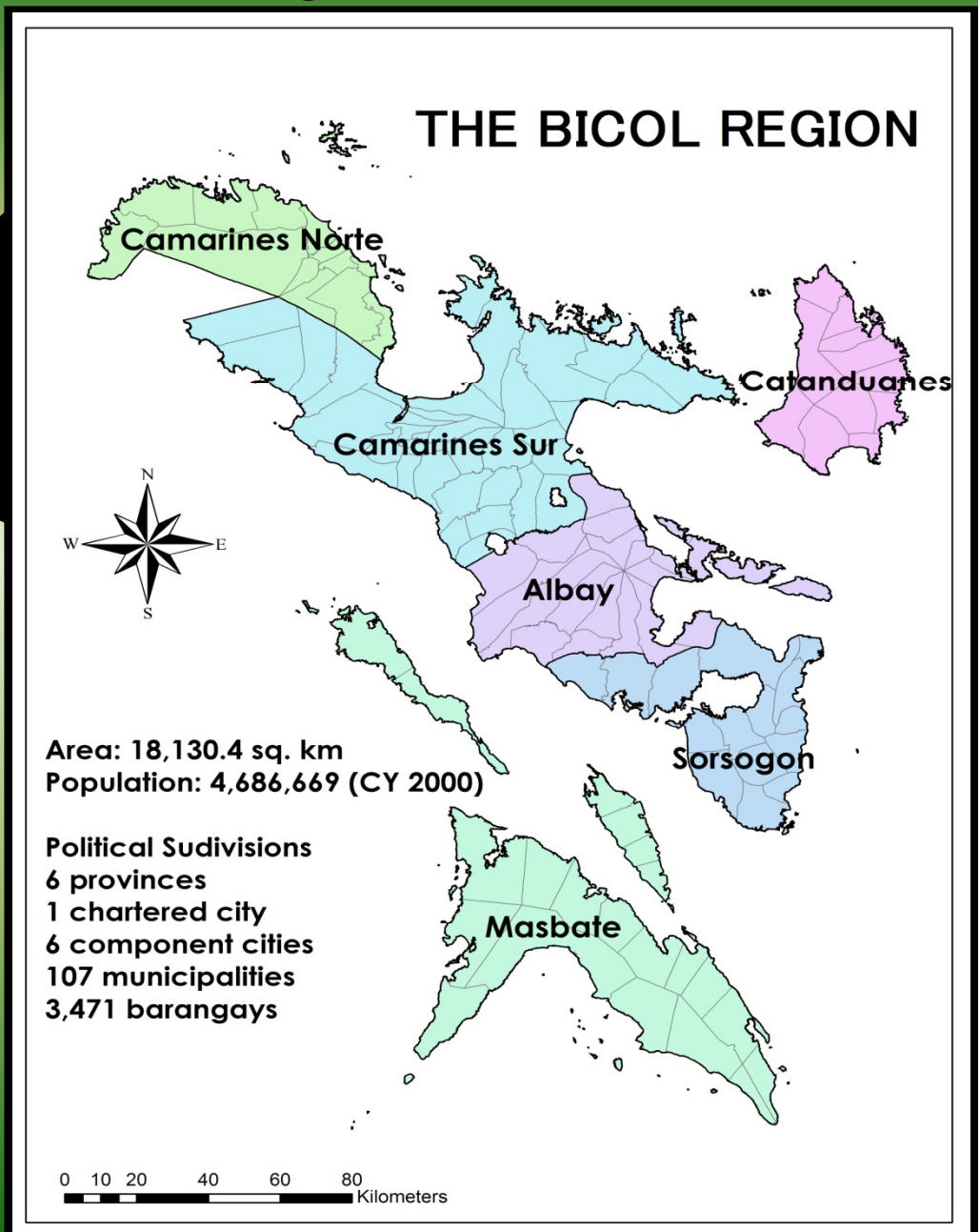
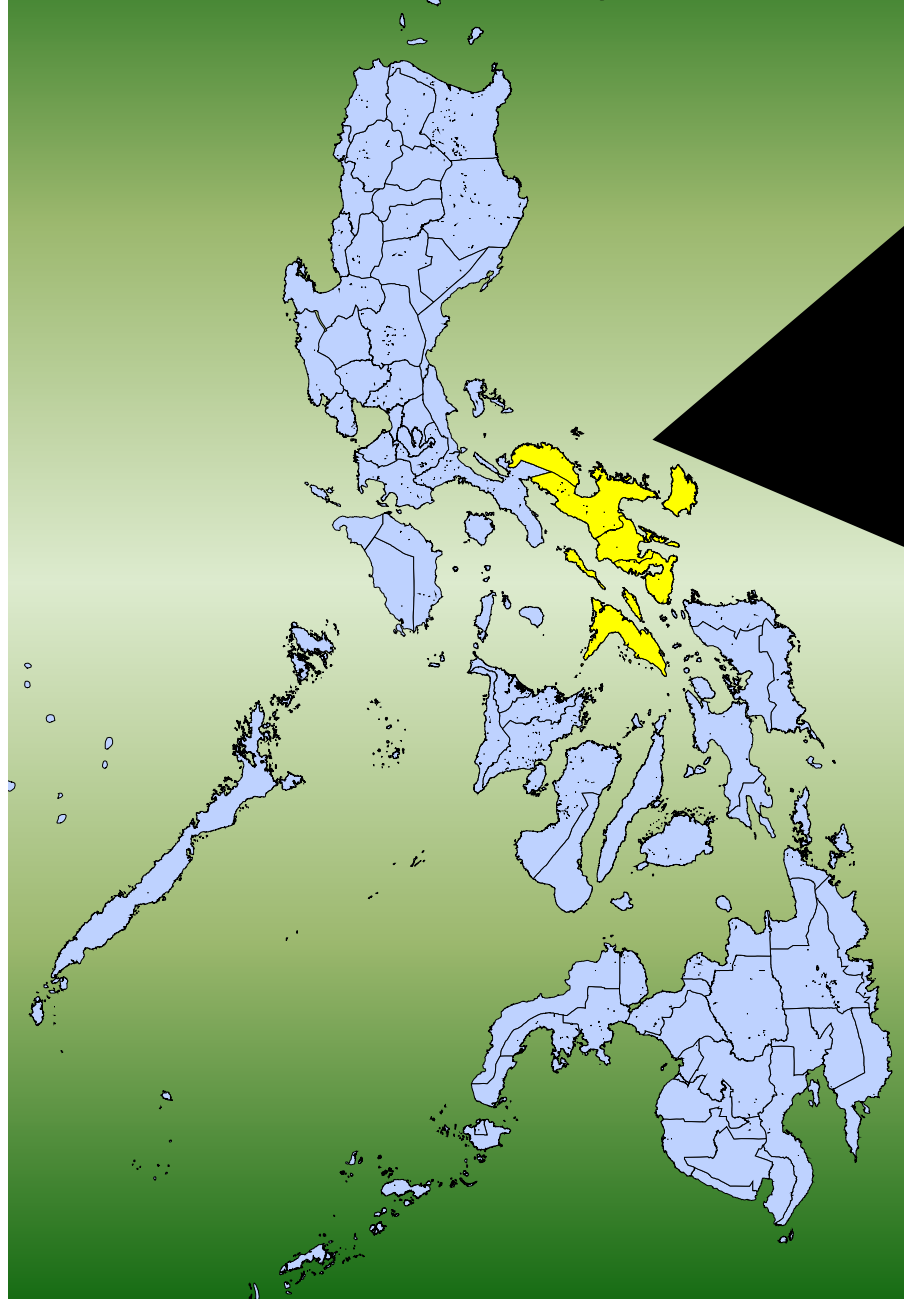
“Poverty is multi-dimensional, extending from low levels of health and lack of education, to other ‘non-material’ dimensions of well-being...”

- A careful analysis of the spatial patterns of poverty in tandem with multiple indicators of well-being is therefore needed to further understand and deepen the analysis of poverty condition of a particular geographical location.

Research Objective

- To explore the spatial patterns of poverty and well-being. Specifically, it attempts to unveil the disparities among places and establish the relationship between poverty with respect to the various indicators of well-being.

Case Study Area: Bicol Region Philippines

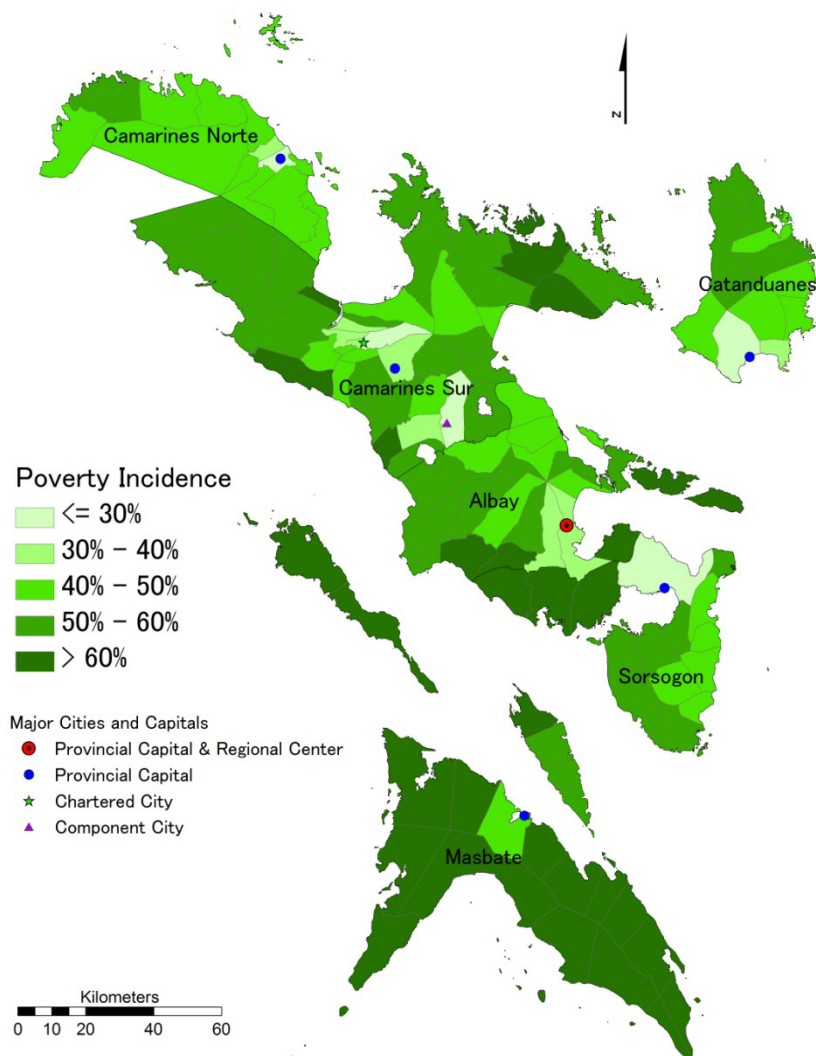


Matrix of Indicators

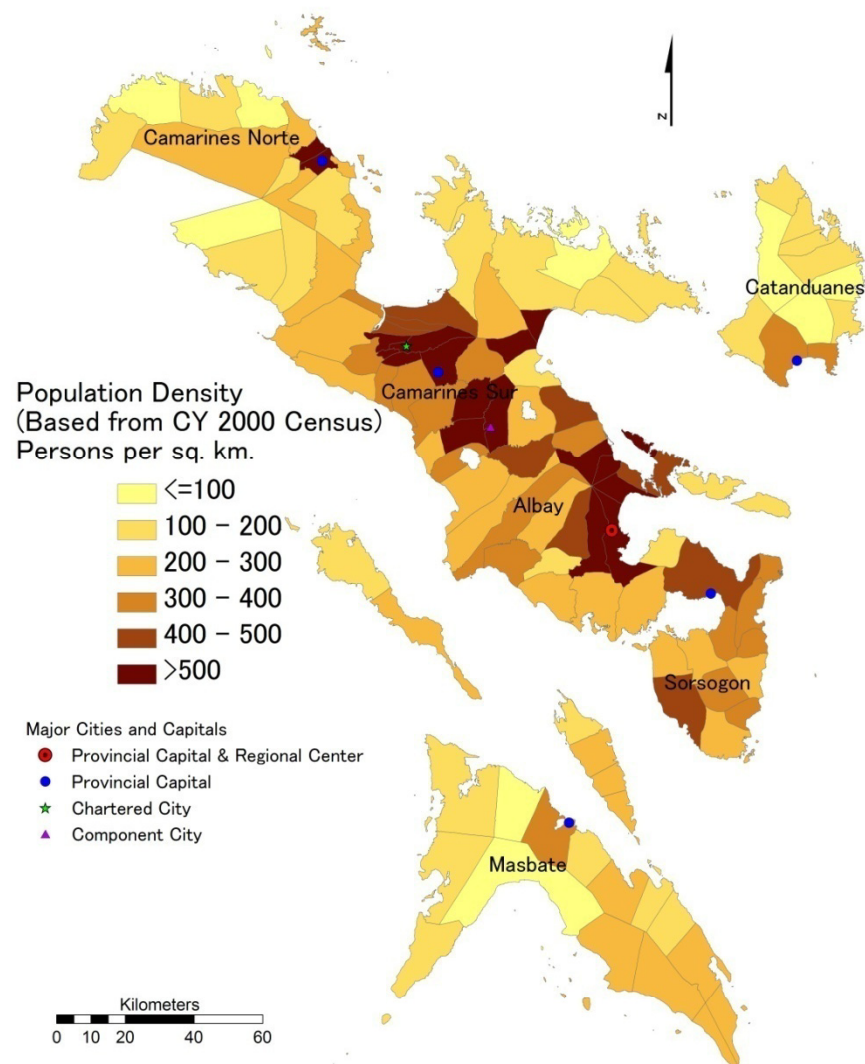
Dimension	Component	Verifiable Indicators	Source
Basic Poverty Measurement	Poverty Incidence	% of people living below poverty line	NSCB 2000, WB-ACSEM Project
Social- economic aspects of well-being	Health	Infant mortality rate	NSCB Bicol, 2004
	Nutrition	Percent of people who were born with less than 2.5 kgs.	NSCB Bicol, 2004
		Percent of people between 7 to 10 years old who are underweight	NSCB Bicol, 2004
	Education	Elementary survival rate	NSCB Bicol, 2004
	Land Ownership	% of land distributed under the agrarian reform program	DLR Region V, 2000
Demographic aspects of well-being	Population Density	Population per sq. km	NSO CY 2000 Census
	Dependency	% of minor and elderly	NSO CY 2000 Census
Access to life's basic necessities	Water Sources	% of households which source water for drinking is other than faucet and deep well	NSO CY 2000 Census
		% of household which source of water for washing/ bathing is spring, river, peddler, etc.	NSO CY 2000 Census
	Fuel Sources	% of household which source of lightning is other than electricity	NSO CY 2000 Census
		% of household which source of fuel for cooking is wood, etc.	NSO CY 2000 Census
	Garbage Disposal	% of household which usually dispose garbage is other than garbage truck.	NSO CY 2000 Census

Local Poverty Incidence and Population Density

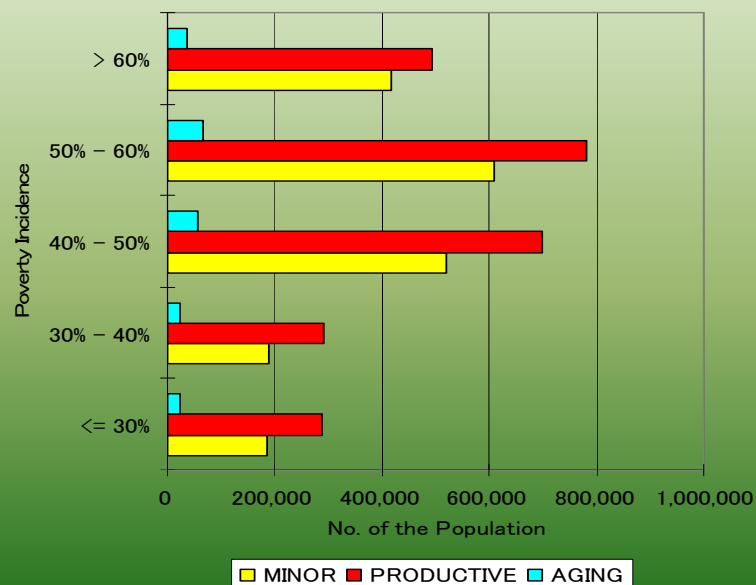
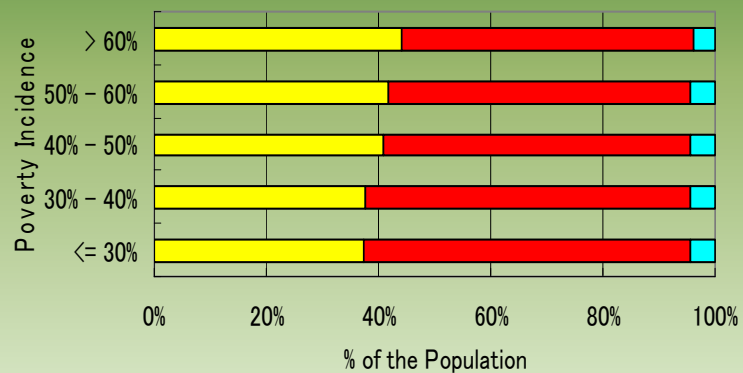
Poverty Incidence in Bicol Region



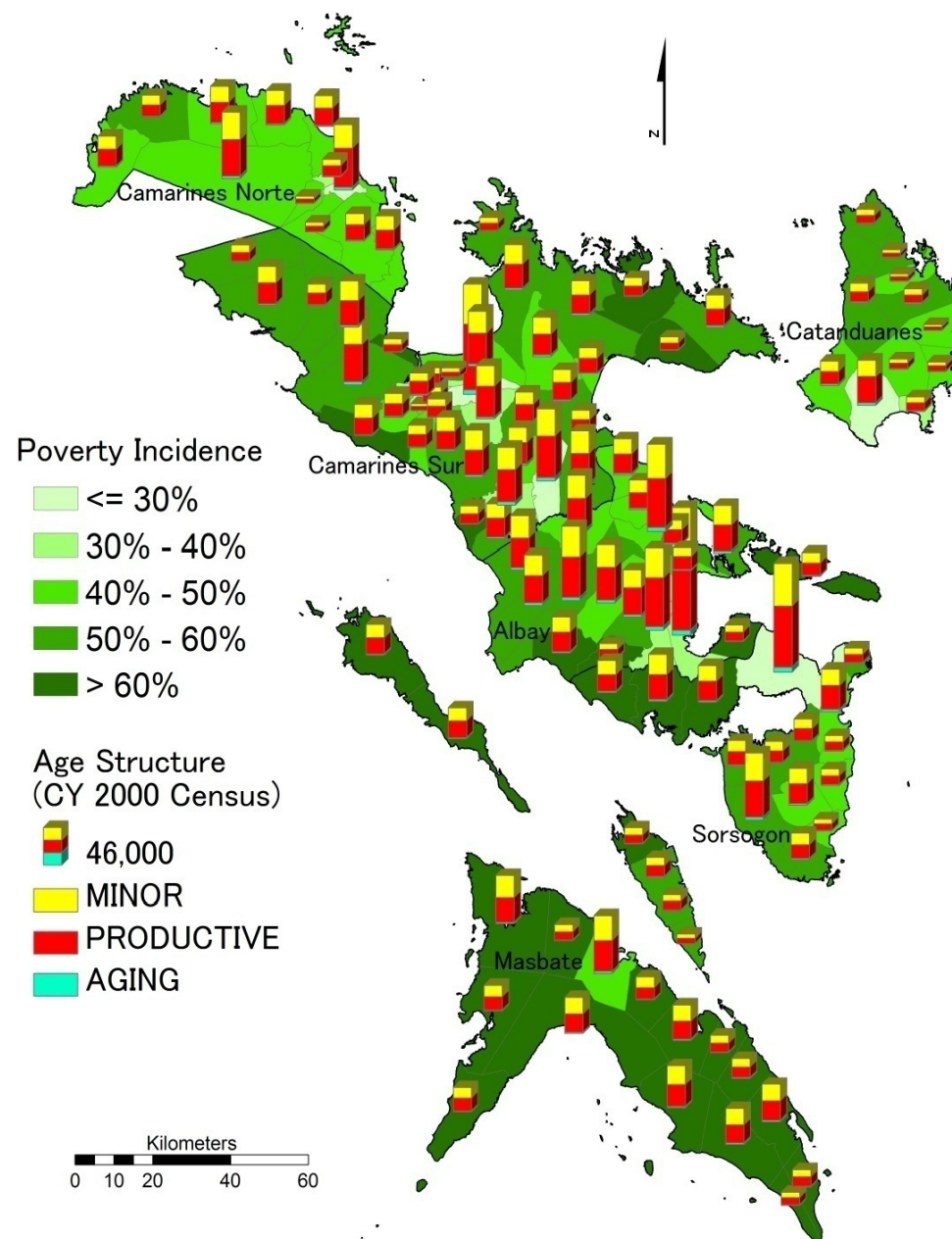
Population Density in Bicol Region



Poverty & Dependency



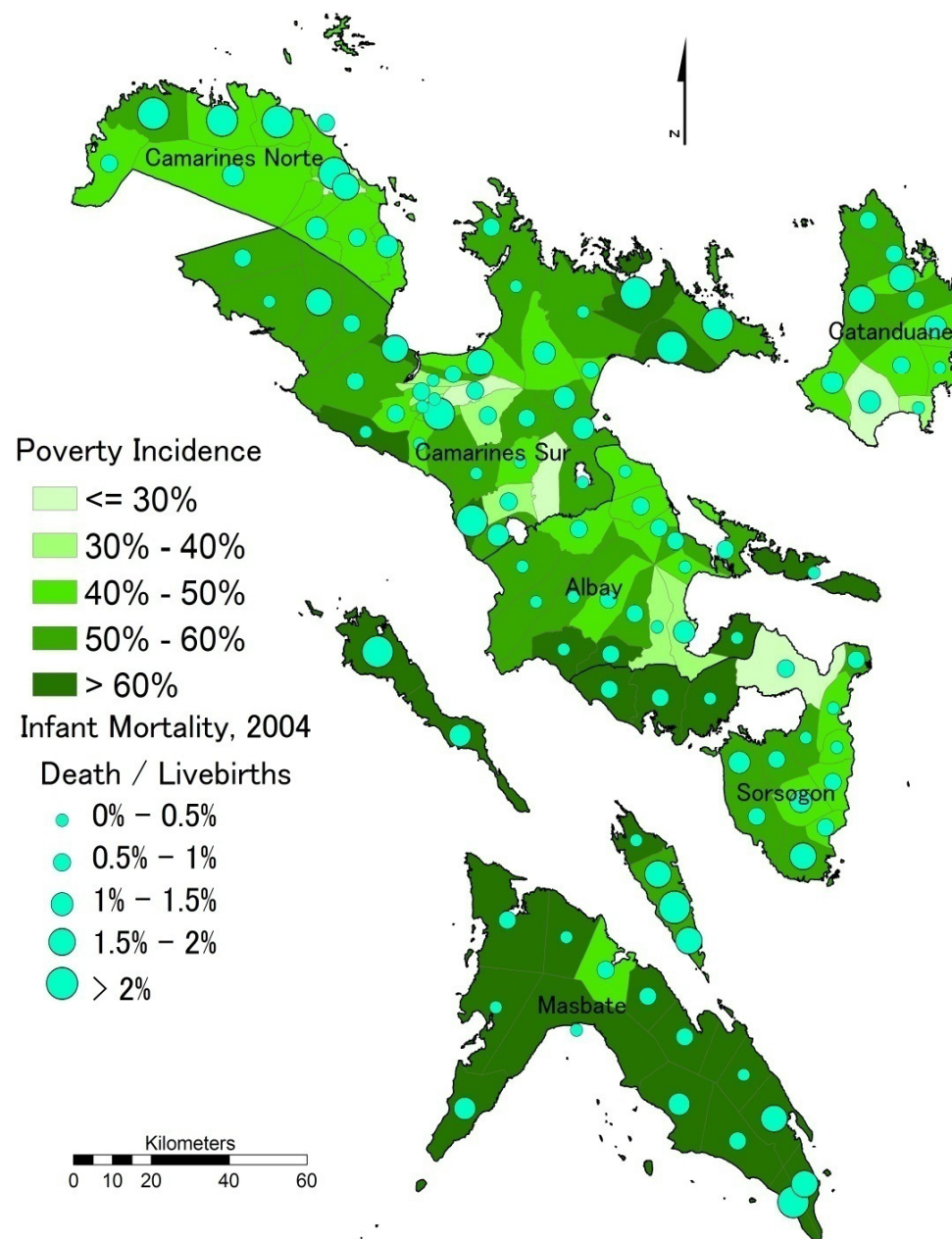
Poverty and Age Structure of Bicol Regional Population



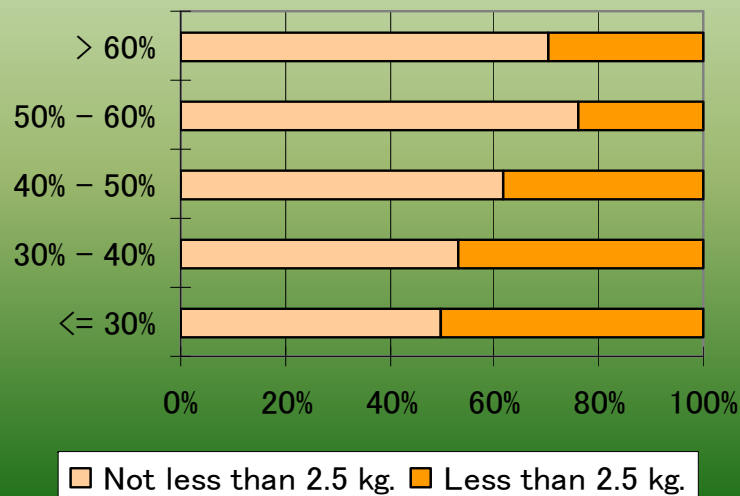
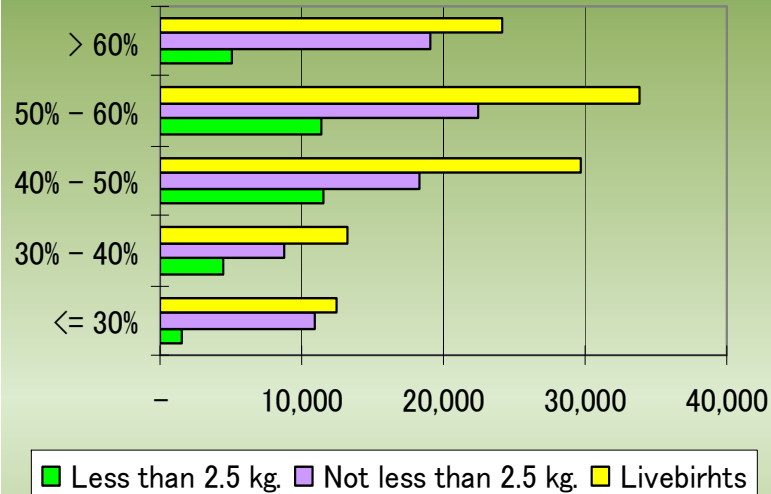
Poverty & Health

Poverty Incidence	Livebirths	Death	Infant Mortality Rate
<=30%	13,238	144	1.09
30% – 40%	12,590	93	0.74
40% – 50%	30,768	291	0.95
50% – 60%	33,303	287	0.86
>60%	24,167	229	0.95
Overall	114,066	1,044	0.92

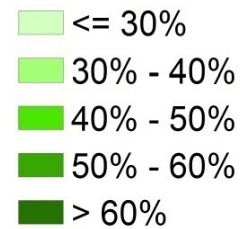
Poverty and Infant Mortality in Bicol Region



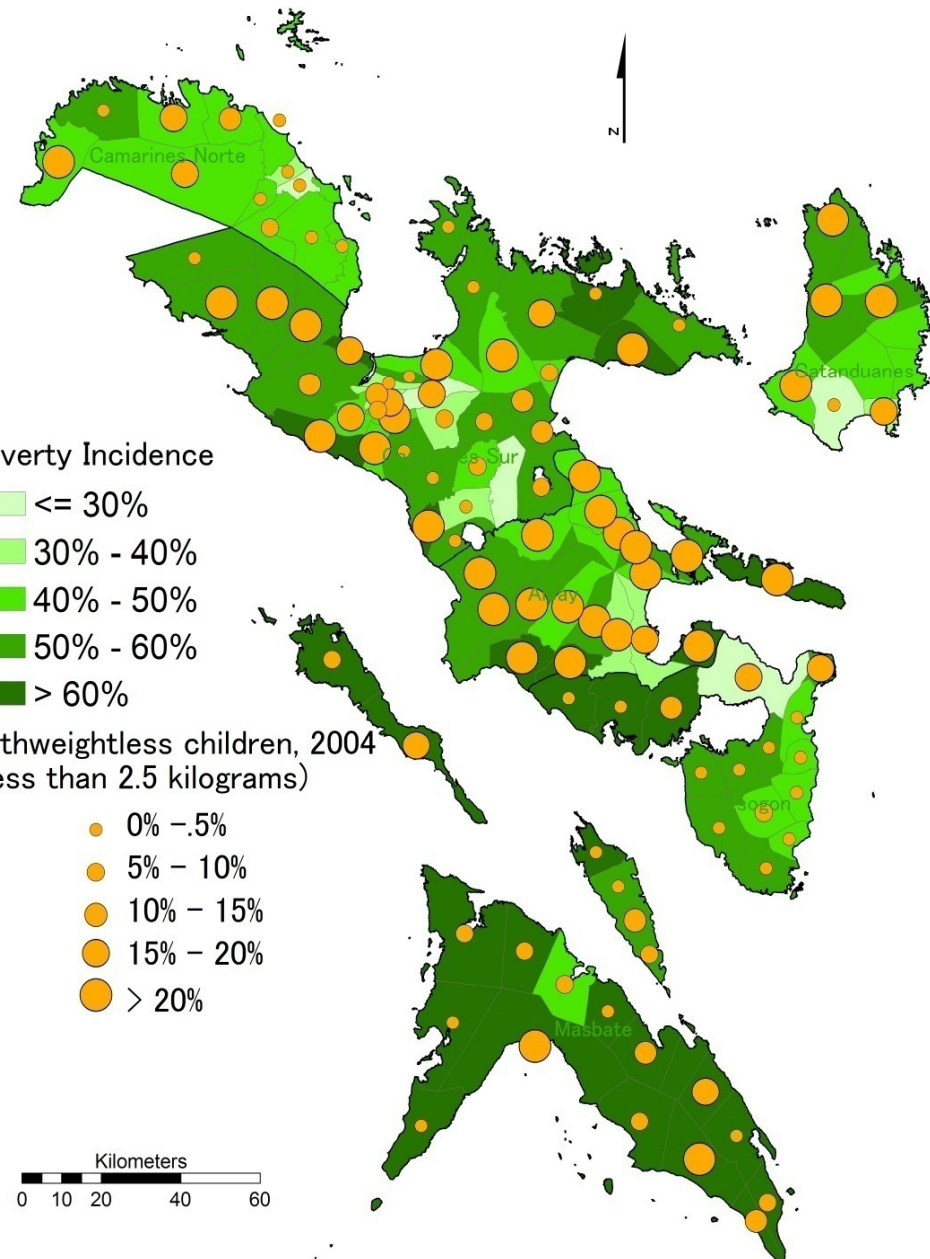
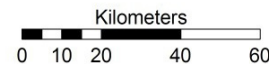
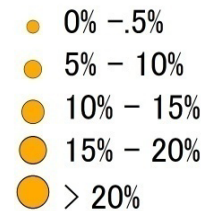
Poverty & Nutrition



Poverty Incidence

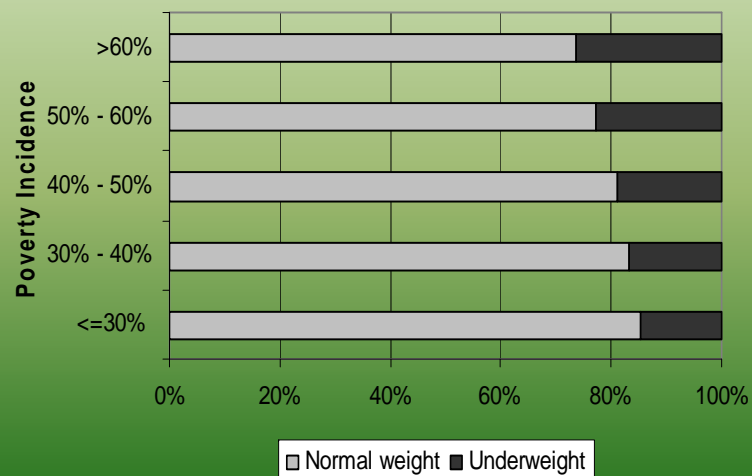
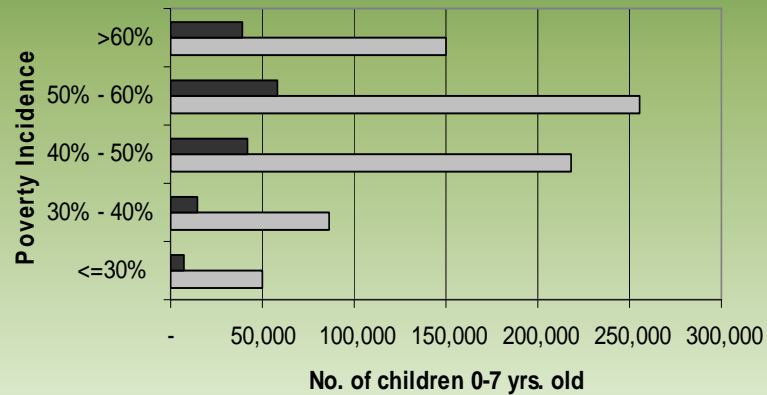


Birthweightless children, 2004 (Less than 2.5 kilograms)

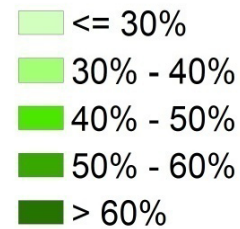


Poverty and Underweight Children in Bicol Region

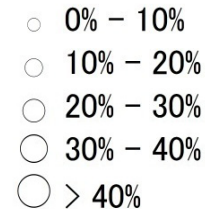
Poverty & Nutrition



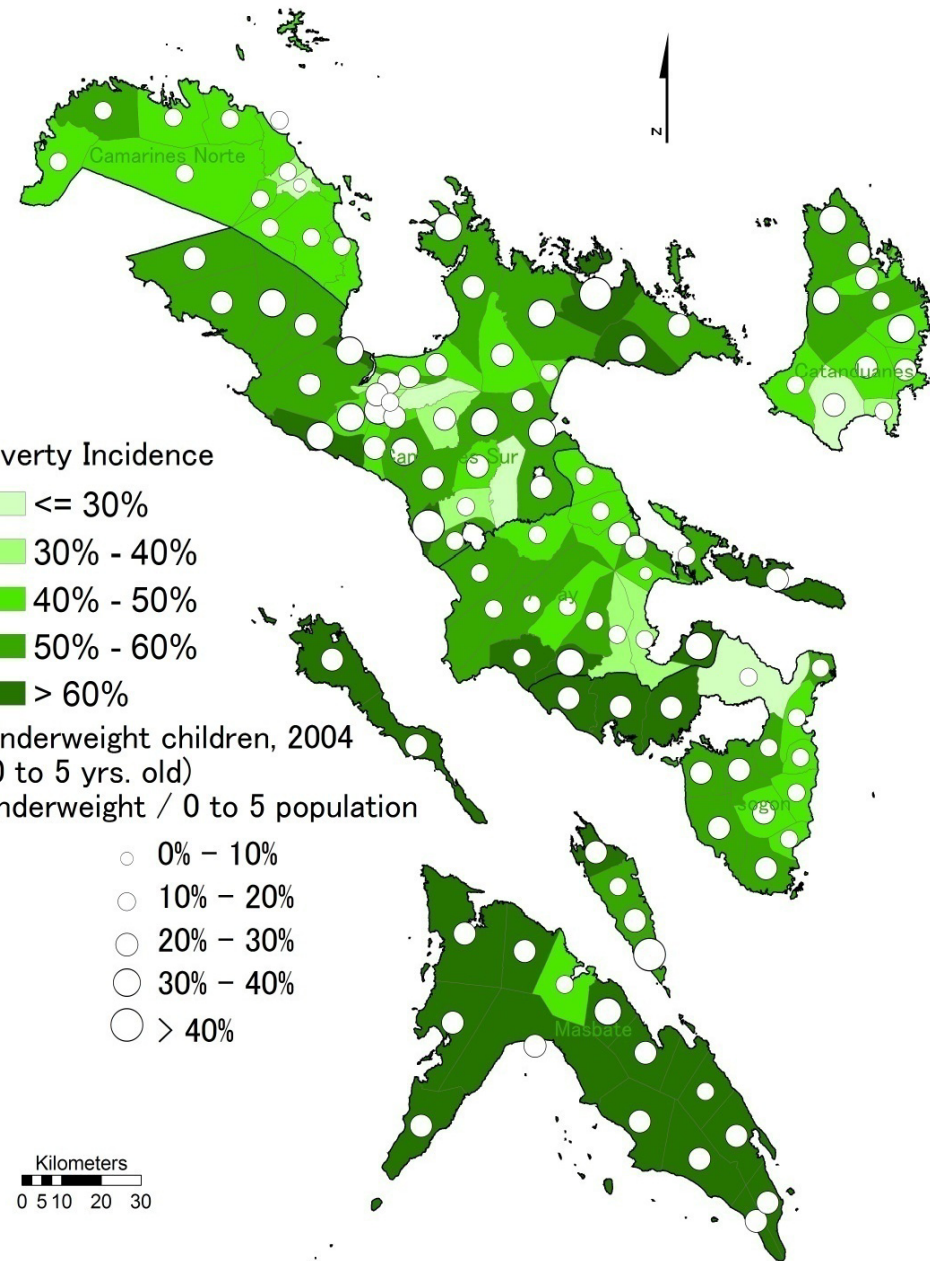
Poverty Incidence



Underweight children, 2004
(0 to 5 yrs. old)
underweight / 0 to 5 population

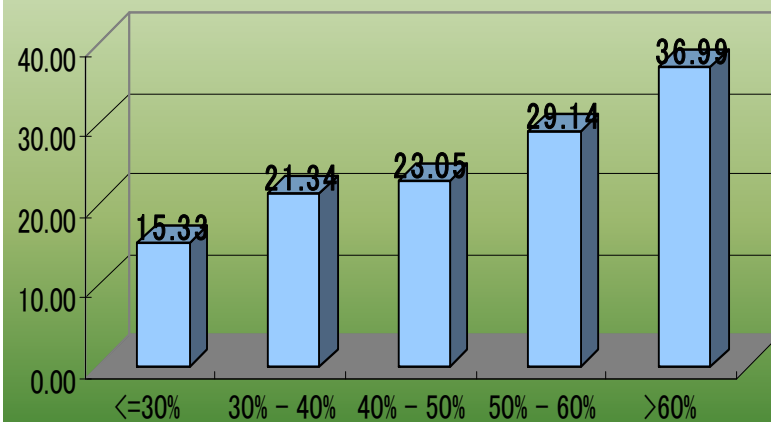


Kilometers
0 5 10 20 30

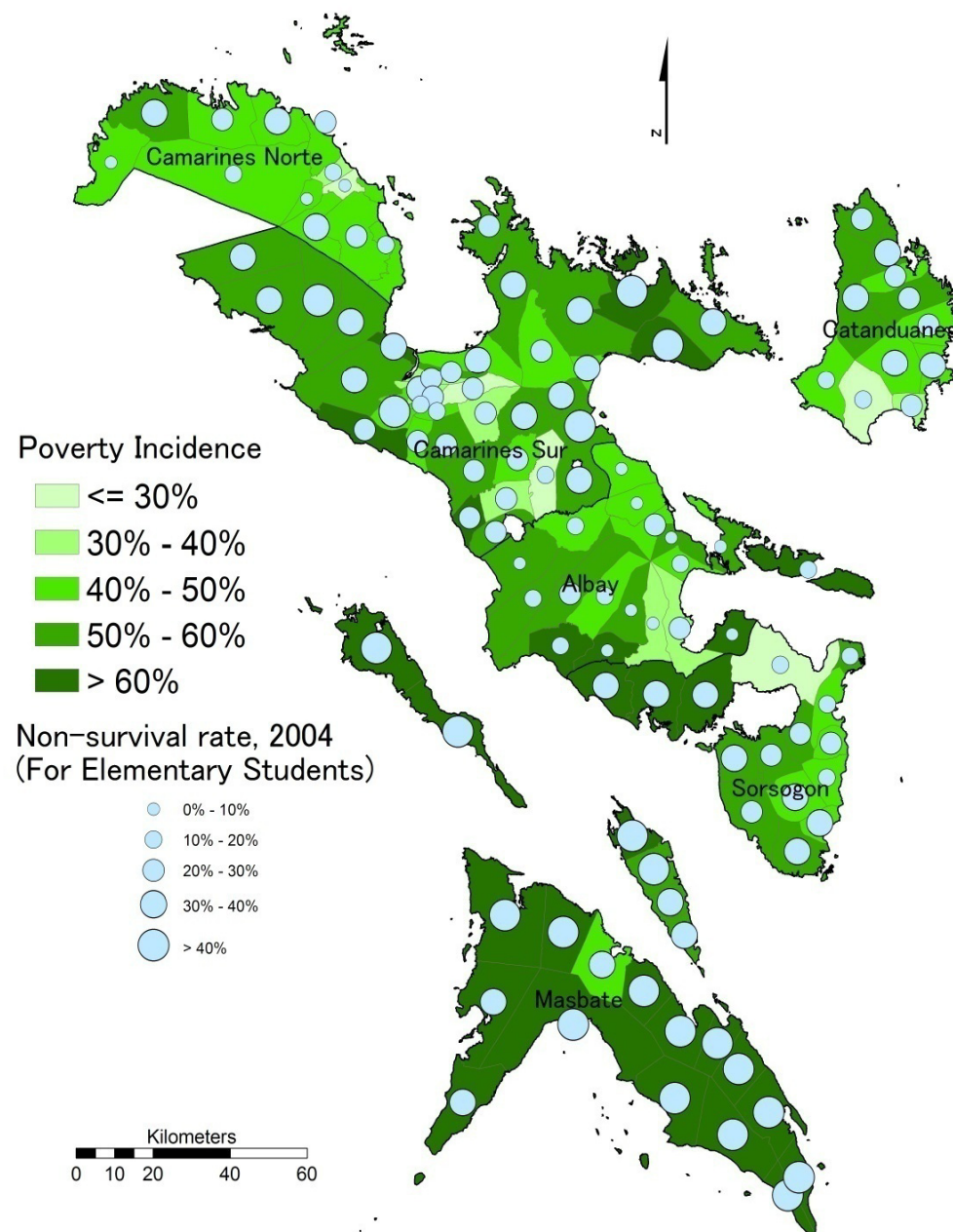


Poverty & Education

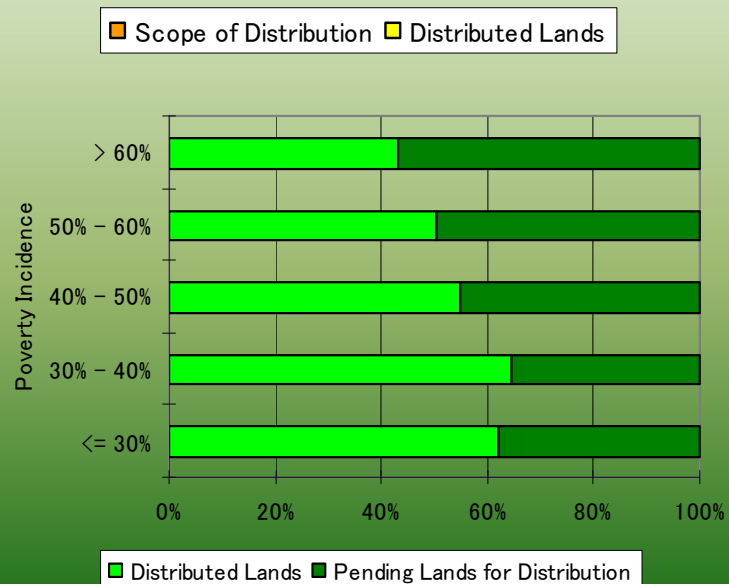
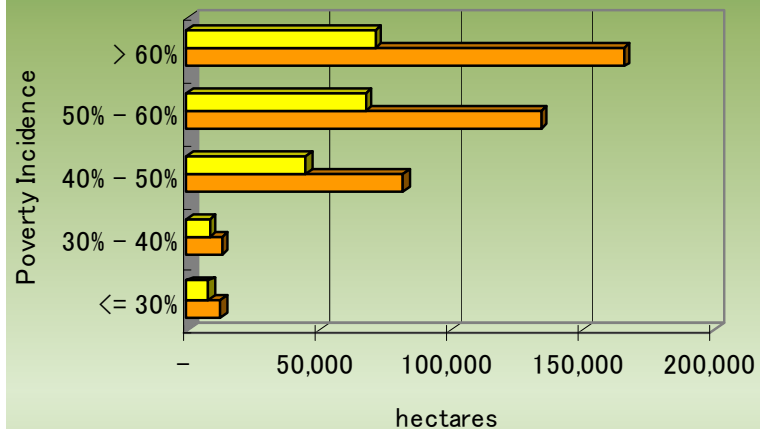
Non-survival rate



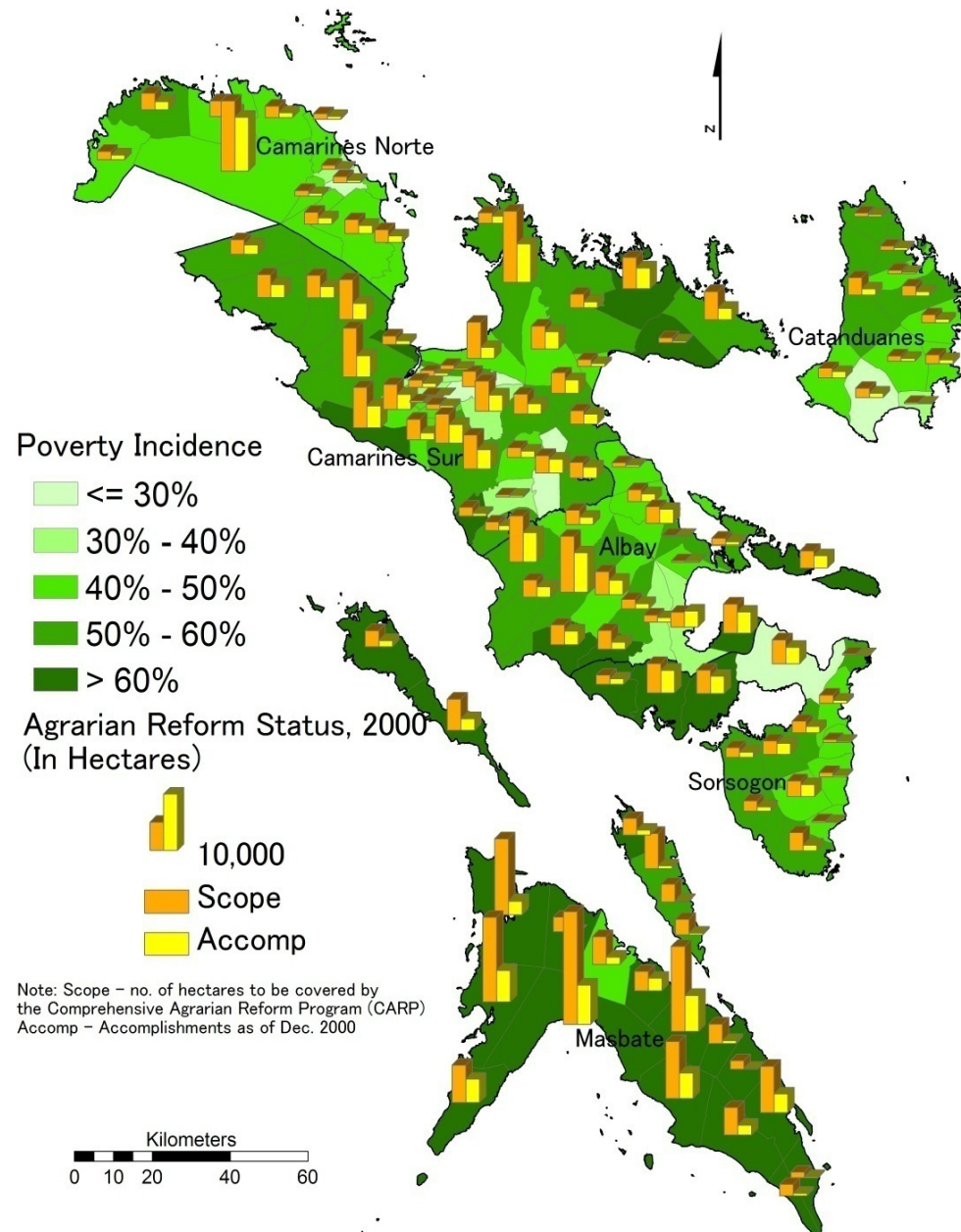
Poverty & Elementary Non-Survival among children in Bicol Region



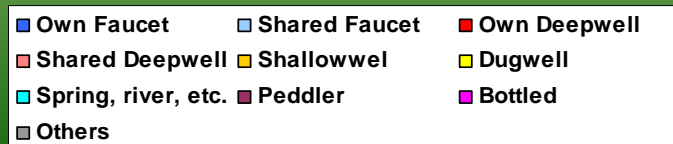
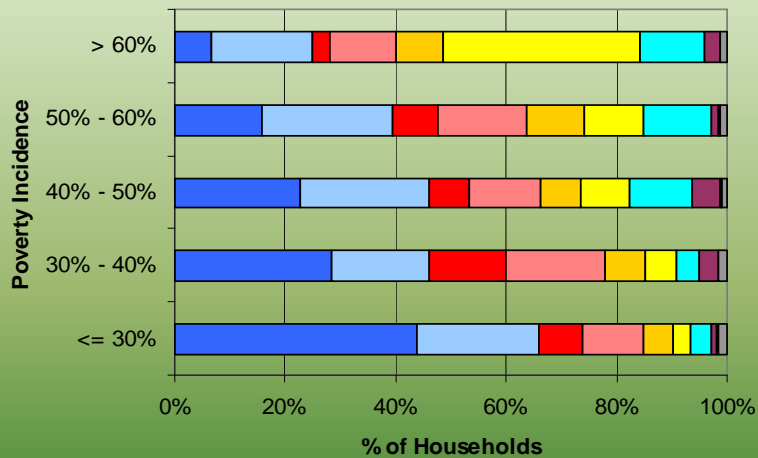
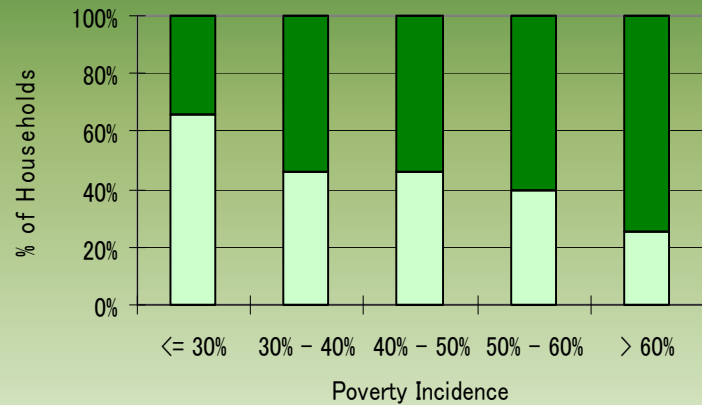
Poverty & Land Ownership



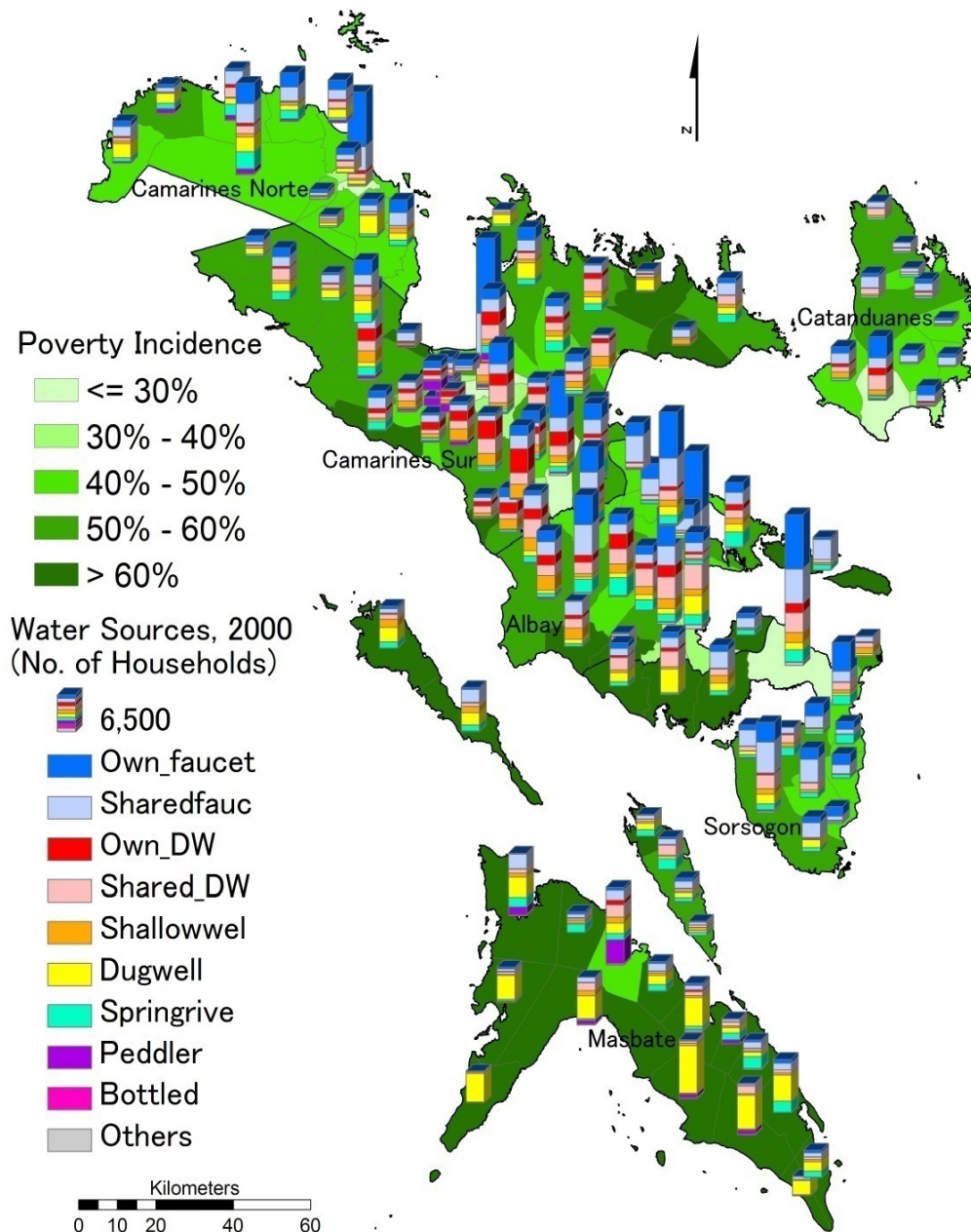
Poverty and Agrarian Reform in Bicol Region



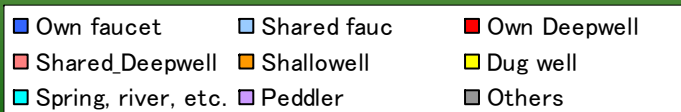
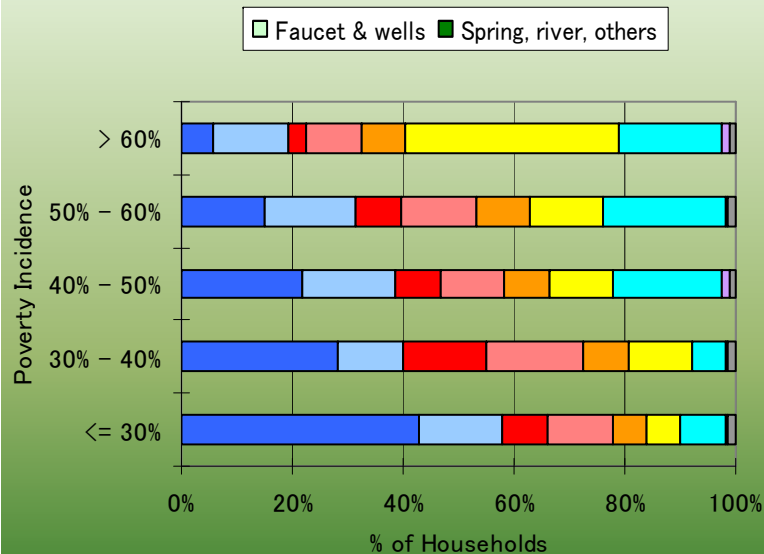
Poverty & Access to Water for Drinking/Cooking



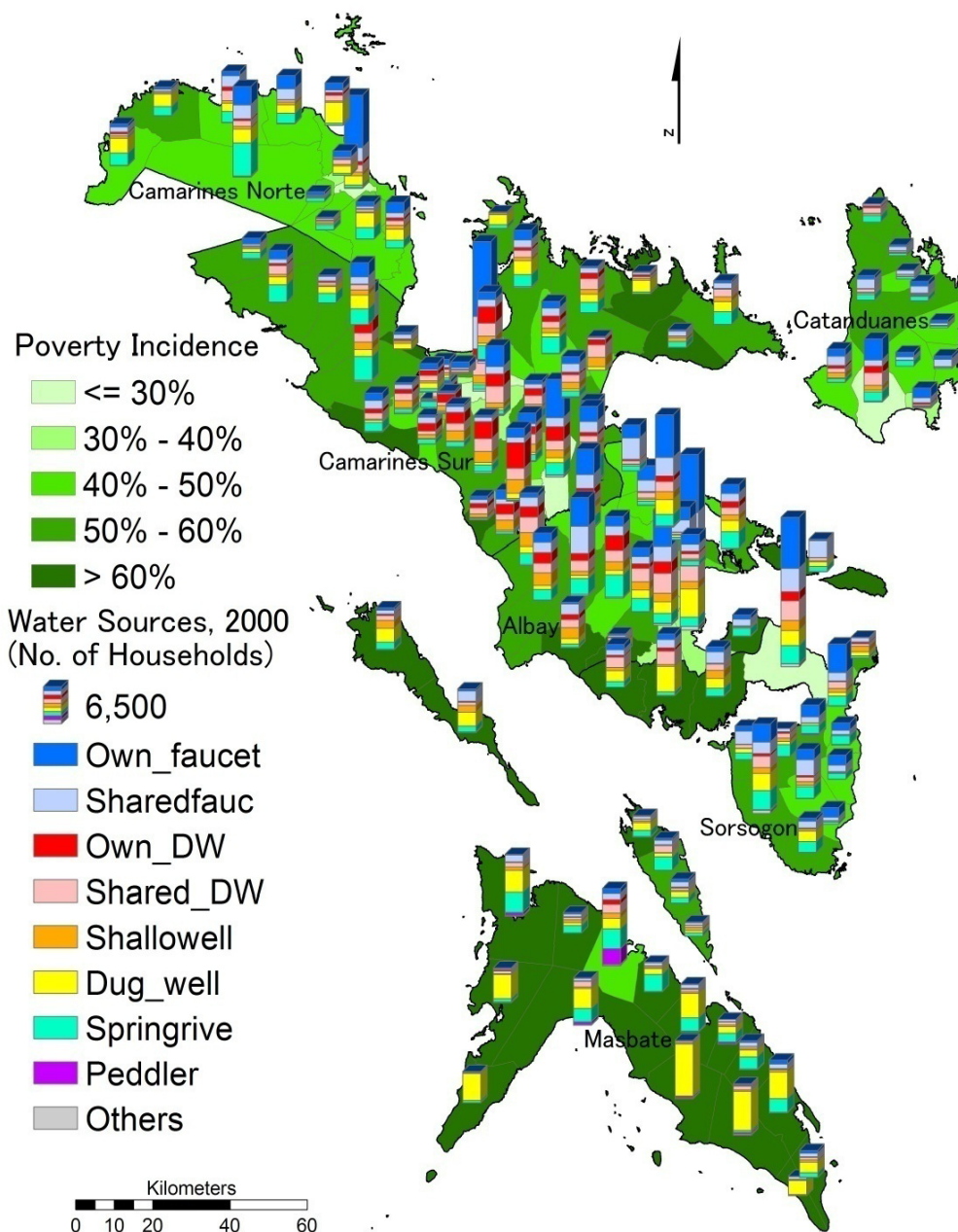
Poverty and Source of Water for Drinking/Cooking in Bicol Region



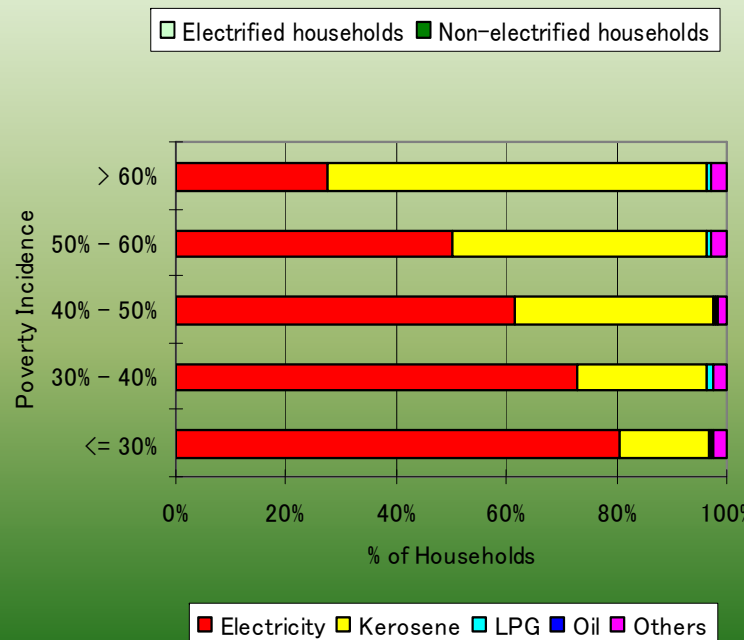
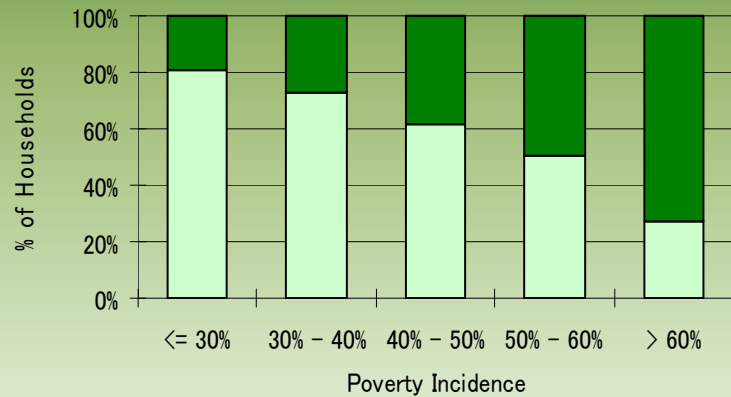
Poverty and Access to Water for Laundry/Bathing



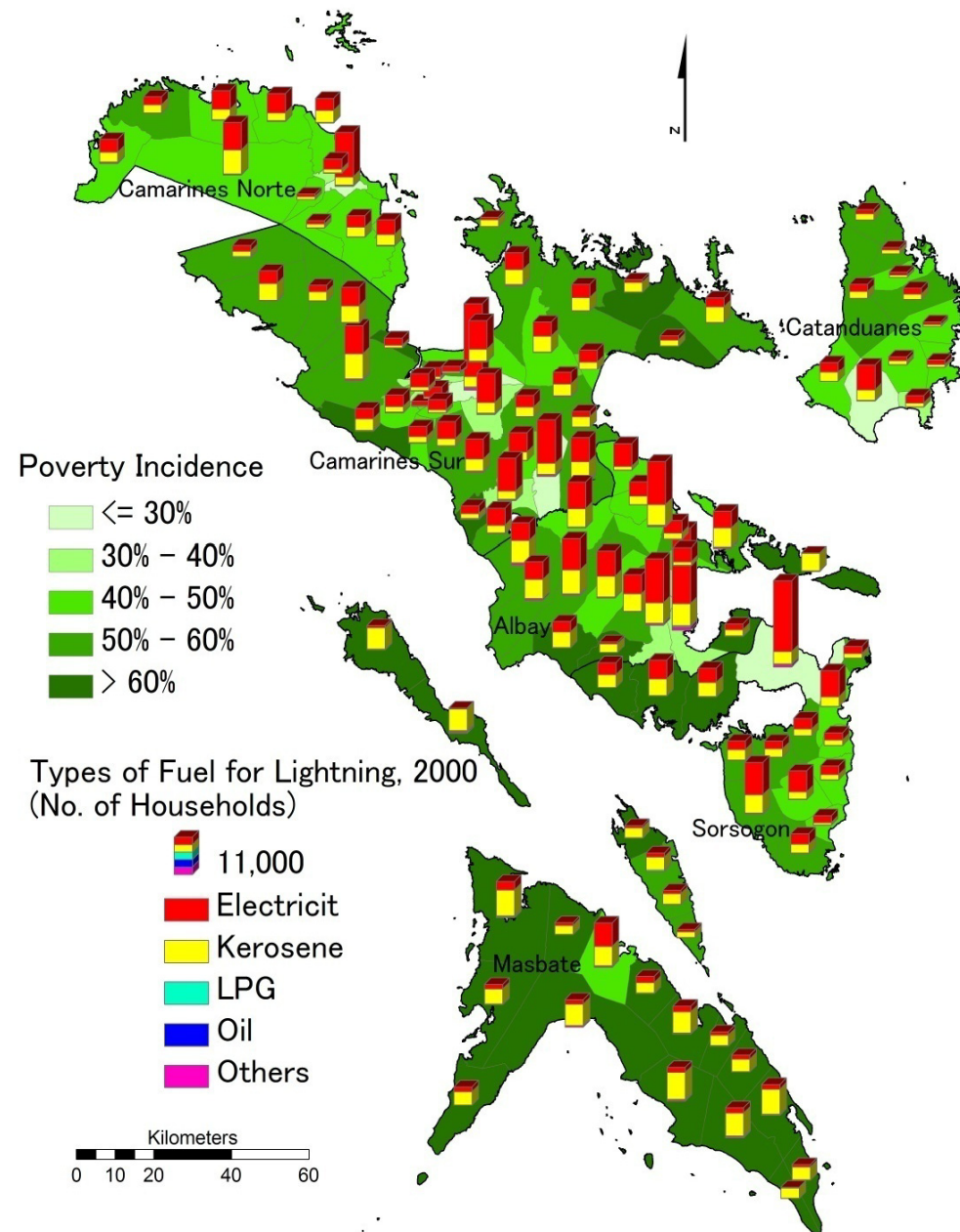
Poverty & Source of Water for Laundry/Bathing in Bicol Region



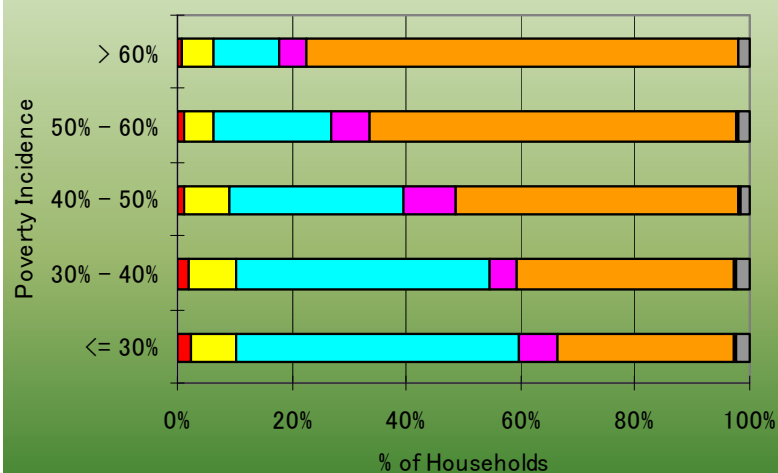
Poverty and Access to Electricity for Lightning



Poverty and Source of Fuel for Lightning in Bicol Region

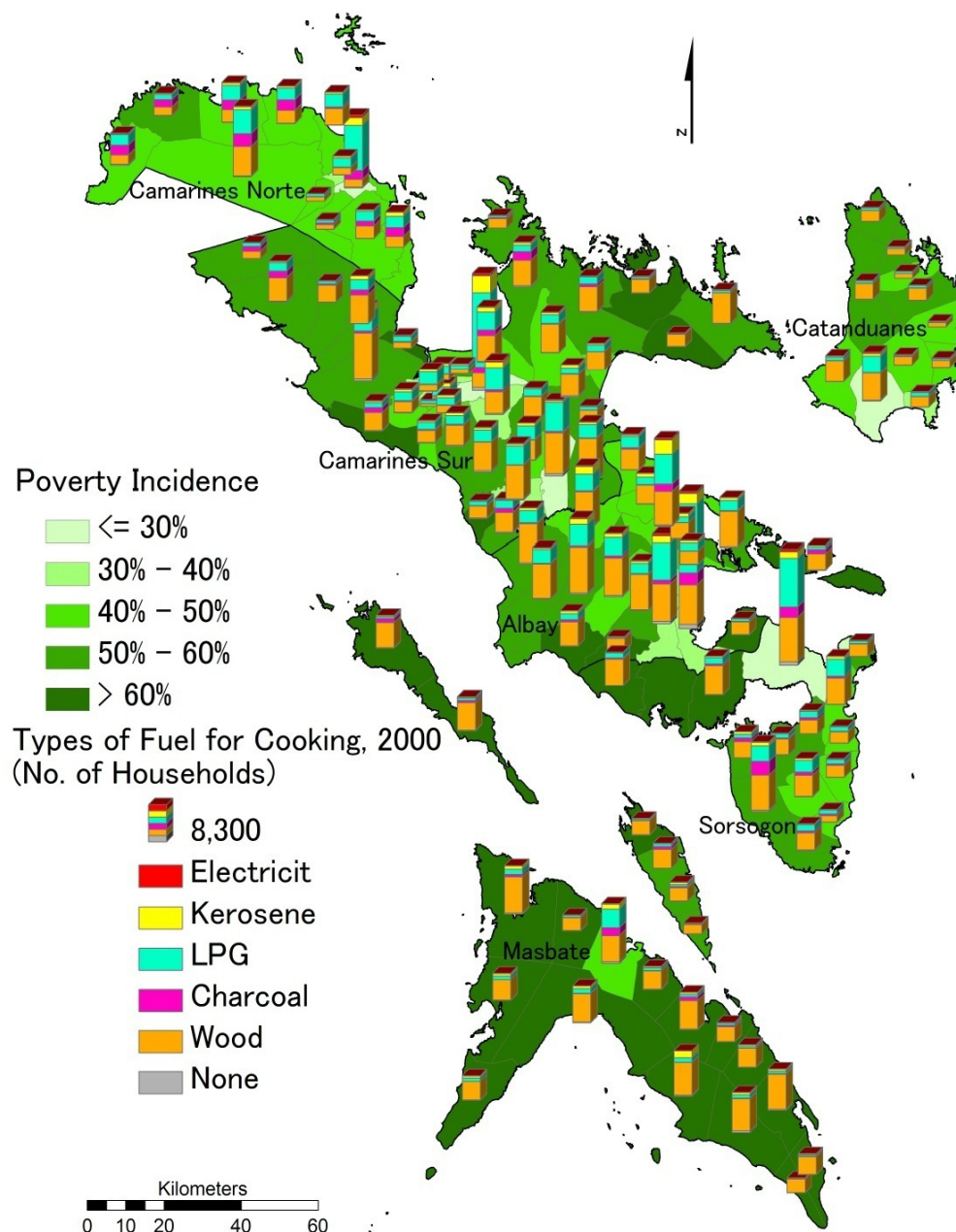


Poverty and Access to Fuel for cooking

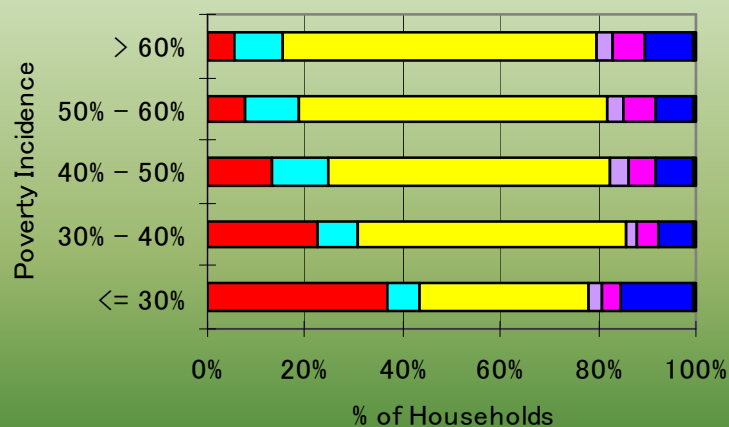
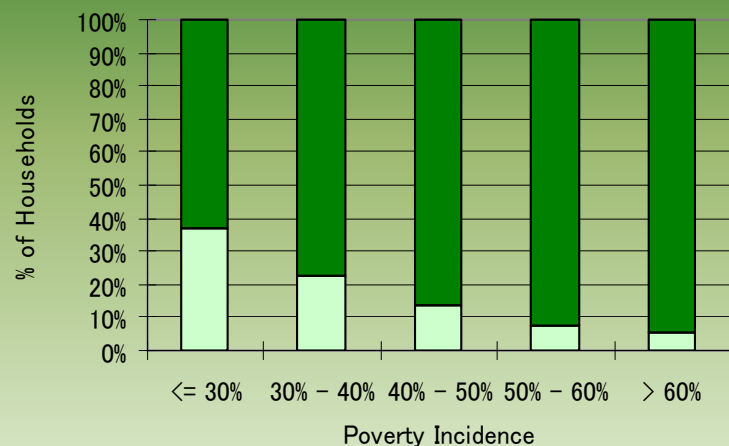


Electricit Kerosene LPG Charcoal Wood Others None

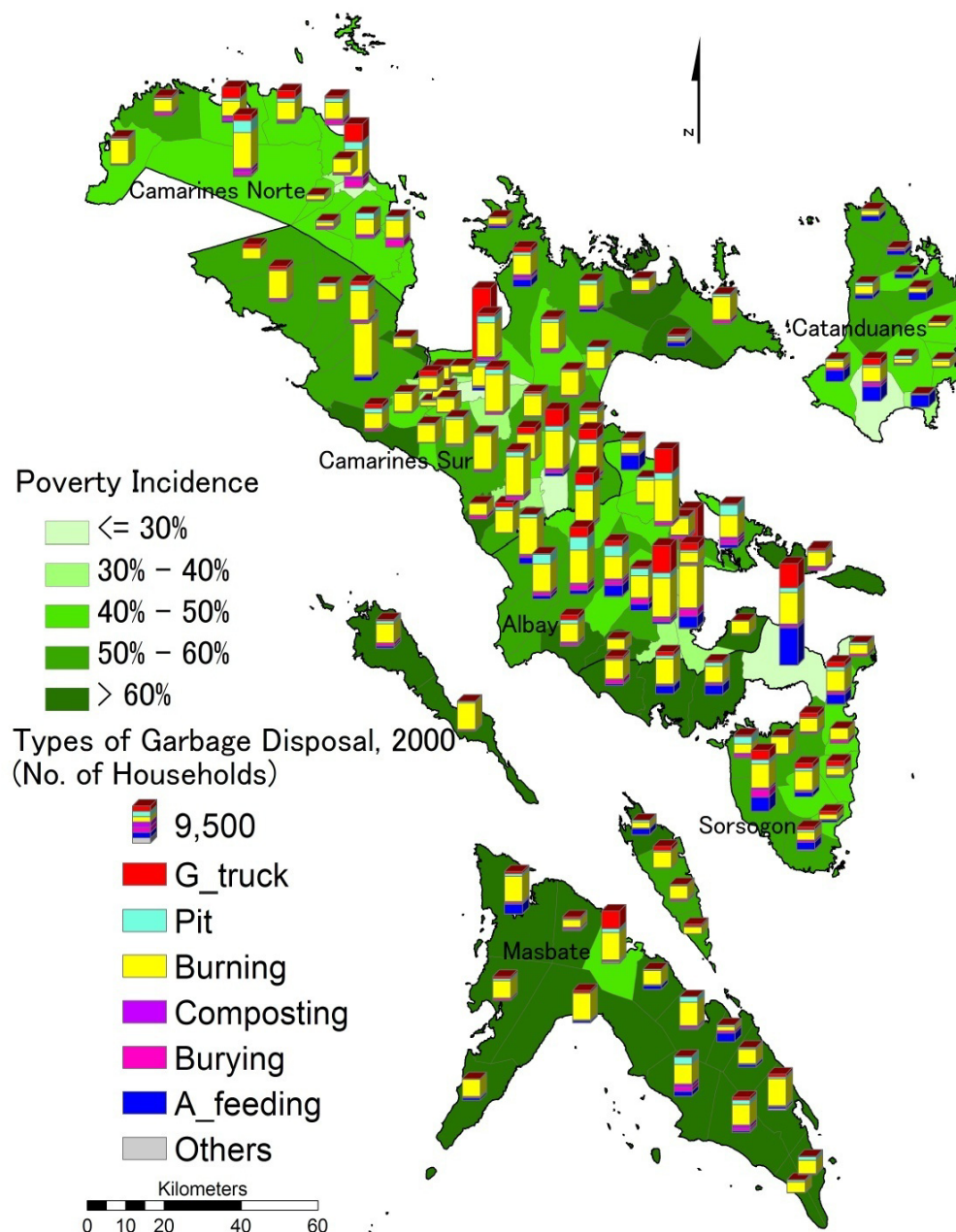
Poverty and Types of Fuel for Cooking in Bicol Region



Poverty and Garbage Disposal



Poverty and Types of Garbage Disposal in Bicol Region



Correlation:

Poverty Incidence vs. various indicators of well-being

	Poverty Incidence	Sig. (2-tailed)
Population Density	-0.5034**	0.0000
Dependency	0.7766**	0.0000
Immortality Rate	0.1304	0.1746
Birthweightless than 2.5 kg.	0.0442	0.6495
Underweight Children	0.4833 **	0.0000
Non-survival rate among Primary Students	0.5679 **	0.0000

* Correlation is significant at the 0.01 level (2-tailed)

** Correlation is significant at the 0.05 level (2-tailed)

Correlation:

Poverty Incidence vs. various indicators of well-being

	Poverty Incidence	Sig. (2-tailed)
Agrarian Reform	-0.2389 *	0.0105
Water sources for Drinking/Cooking	0.5877 **	0.0000
Water sources for Washing/Bathing	0.2212 *	0.0180
Fuel sources for lightning	0.8068**	0.0000
Fuel sources for cooking	0.8132 **	0.0000
Garbage Disposal	0.4291*	0.0000

* Correlation is significant at the 0.01 level (2-tailed)

** Correlation is significant at the 0.05 level (2-tailed)

Thank you

