

Just as national government agencies and their local offices should support the priority programs of local government units, local governments should also put in place mechanisms whereby rural health unit staff and volunteer barangay health workers and midwives gain more information and skills to render population-related services.

C. Local Citizens

Power resides in the people who can be change agents for sustainable development. As such, the Integrated Fisheries and Aquatic Resources Management Council (IFARMC), the policy-recommending body on fishery-related issues and concerns in Northern Lamon Bay, must lead in supporting a policy framework that will link an understanding of population increase with an understanding of the state of fishery resources.

The leaders can begin by formulating and recommending to the Sangguniang Bayan local ordinances on population increase and mangrove degradation. To succeed, they must call upon fellow citizens to ensure that this policy framework recognizes fisherfolks as strategizing actors whose decisions should be respected and recognized.

And as citizens are guaranteed the right to choose among options for local development, they work within a policy framework that guarantees options for family life whereby informed couples can act decisively on family size and on family planning methods.

D. General Public

The general public is also key to the advocacy of the townspeople along North Lamon Bay for a policy framework that will protect and manage mangroves not only for the needs of the present generation but also of future generations. Public vigilance can take the form of formulating, networking, lobbying for, and checking compliance on the implementation of a law that links population issues with resource conservation. This law must cover mangrove resources – the ‘lungs’ of such bodies of water as North Lamon Bay that nurtures no less than nine municipalities.

Specifically, the public can participate in regular monitoring of the capacity of mangrove areas to accommodate the needs of a growing fishing population. As a key sector, they can do this not only in North Lamon Bay but throughout the country.

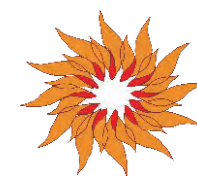
*This policy paper is based on a project, *Understanding the Impact of Population Increase to Mangrove Productivity: A Research and Advocacy Project*, a grant of the Philippine Center for Population and Development, Inc. (PCPD) to the Institute of Social Order of the Ateneo De Manila University. The project aimed to determine the extent and impact of increasing population to mangrove productivity and sustainability.



The Institute of Social Order (ISO) envisions a society that upholds human dignity, sharing and democracy as embodied in the principles of faith-justice, inculturation dialogue reflected in the GC 34 documents of Society of Jesus, the Gospel and the Social Teachings of the Catholic Church.



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Philippine Center
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INTEGRATING POPULATION MANAGEMENT AND COASTAL RESOURCE MANAGEMENT

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SOCIAL ORDER (ISO)
AND THE INTEGRATED
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MANAGEMENT
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FOR NORTHERN
LAMON BAY

Mangroves are a critical ecosystem for breeding commercially valued fish species and mollusks, as well as for feeding animals, including migratory and endemic bird species.

But mangroves can be cut down to reclaim land or build fishponds. This has happened in Quezon Province where mangroves around Northern Lamon Bay have become affected by increases in population and in human activity.

Within the issues of population increase and mangrove degradation is the concern for the welfare of the people and the environment. In a policy paper, the Institute of Social Order (ISO) and the Integrated Fisheries and Aquatic Resources Management Council (IFARMC) for North Lamon Bay propose a framework where institutions can anchor programs that lessen the effects of population increase on coastal resource management.

The basis: empirical research by the ISO in 2006 and 2008 and by the IFARMC, the policy-recommending body to local governments on fishery-related issues and concerns and composed of Municipal Agriculturists and fisherfolk leaders from Mauban, Gen. Nakar, Real, Infanta, Panukulan, Polillo, Burdeos, Jomalig and Patnanungan.

Problem and context

A weakness of management institutions, according to the paper, is viewing mangroves in terms of economic values and not so much in terms of their social and cultural links with people. Infrastructures like wharves and docking areas for boats, particularly in Panukulan, Real and Infanta, are constant reminders that natural ecosystems can be set aside in the name of development - a point of view that fuels the exploitation of mangroves for profit.

The conversion of mangrove areas to fishponds in the name of profits has displaced families from their traditional fishing grounds. Specifically, from 1970 to the mid-1980s, such an economic activity intensified in Panukulan, Infanta and Polillo. In Infanta alone, around 766 hectares of mangroves were cleared; as of 2009 around 1,177 hectares (more than 40% of the total mangrove area in the municipality) are now fishponds.

Another problem arises when both settlers and local residents around North Lamon Bay use mangroves as charcoal, firewood and the main material for the local wine – *lambanog*. In Panukulan, unregulated brewing may endanger mangroves even more.



Aside from the pursuit of easy money, mangrove resources are also threatened by population increase in the nine towns around North Lamon Bay. For one, when the Famy-Real Road was built, migrants flooded Real and settled mostly in mangrove areas, which they considered rent-free sources of land and materials for housing as well as livelihood and food.

In addition, in the towns around North Lamon Bay, mangrove areas – once considered to be part of the commons – have become privatized, to the detriment of women fisherfolks who have scoured it for food on the table.

Population increases, environmental degradation, immediate but eventually counter-productive profits: these beset the fishing population of the bay, as do income disparities, conflicts in the use of resources, and lack of access to reproductive health services.

Table 1. Total Population and Average Population Growth Rate Per Municipality

Municipality	1990	1995	2000	2007	Average Growth Rate (1990-2007)
General Nakar	Nad	21,121	23,678	24,895	0.18*
Mauban	43,740	47,442	50,134	55,866	0.28
Real	20,475	27,631	30,684	33,073	0.62
Infanta	35,298	39,772	50,992	60,346	0.71
Polillo	Nad	24,626	24,105	27,912	0.13*
Panukulan	9,815	10,351	11,311	11,968	0.21
Burdeos	17,983	20,246	19,635	23,568	0.31
Jomalig	Nad	4,371	5,817	6,111	0.40*
Patnanungan	9,447	9,638	11,034	12,825	0.38

*Covered the period of 1995-2007 only.
Source: 1990, 1995, 2000, 2007 Census of Population, National Statistical

Table 2. Number of Professed Mangrove Resource Users, by Barangay/Municipality

Barangay/ Municipality	Mangrove Resource Users			Total
	Yes (% to total)	No (% to total)	No Answer (% to total)	
Cagbalite I, Mauban	8	92	0	100
Cawayan, Real	70	28	2	100
Dinahican, Infanta	57	43	0	100
Libjo, Polillo	63	34	3	100
Calasumanga, Panukulan	64	27	9	100
San Rafael, Burdeos	60	15	25	100
Apad, Jomalig	54	41	5	100
Patnanungan Norte, Patnanungan	61	36	3	100
All Barangays/ Municipalities (% to Total)	437 (55%)	306 (38%)	57 (7%)	800 (100%)

Current responses; gaps in current responses and their possible effects

There are indeed programs on coastal resources management initiated by the local governments in some towns along North Lamon Bay, but these have no comprehensive policy on the effects of demographic increase on such resources.

Also, the nine municipalities have passed a Unified Municipal Fishery Ordinance (UMFO) to promote inter-municipality cooperation through the joint conduct of seaborne patrolling and surveillance as well as mobile checkpoints, but this ordinance lacks provisions on mangrove management, lament the leaders of IFARMC.

Thirdly, institutions in the nine coastal towns are arranged such that population growth and mangrove degradation are not thoroughly discussed and properly addressed. For instance, laws on resource use are not properly channeled to avoid clashes between regulators and users.

Fourthly, the issue of population increase remains relatively new to practitioners of the Community-Based Coastal Resources Management (CB-CRM) framework for people empowerment and sustainable development. As a result, basic sectors like women, fishers and barangay officials rarely communicate and cooperate with one another to respond effectively and efficiently to these issues.

True, CB-CRM practitioners have carried population-related issues like the productive and reproductive rights of women fishers, but they still need to integrate within their framework steps to combat increases in resource users which can cause conflict among social groups and eventually lead to a decline in the health of resource bases.

And since an unchecked increase in the number of resource users can lead to a higher exploitation rate of mangroves, any gains from CB-CRM

interventions can be virtually wiped out. This has happened in Real, Panukulan, Jomalig, Burdeos and Patnanungan where population increases have cancelled gains from fish sanctuaries and mangrove management initiated by local governments.

Action steps: Recommendations addressed to specific duty bearers

The policy paper by the ISO and the IFARMC urges coastal communities to work for a population level which can be supported by current resources, including mangroves. Residents can join various actors in improving service delivery on the population-related issues of family planning, gender and reproductive health, child birth and child care.

A. National government and its local agencies

A policy framework that is relevant to population and mangrove management is Republic Act 8550 (Philippine Fisheries Code of 1998). This landmark legislation stresses the need for a framework to regulate the use of coastal resources in the country. It also highlights food security as an overriding clause for sustainable extraction of these resources.

Section 2 stipulates that the State must *'to achieve food security as the overriding consideration in the utilization, management, development conservation and protection of fishery resources in order to provide the food needs of the population. A flexible policy towards the attainment of food security shall be adopted in response to changes in demographic trends for fish, emerging trends in the trade of fish and other aquatic products in domestic and international markets, and the law of supply and demand.'*

Aside from this Code, the Local Government Code of 1991 (Republic Act 7160) charges the national government to support municipalities -

such as the fourth to sixth class municipalities along Northern Lamon Bay - via its Internal Revenue Allotment (IRA). Such support can take the form of national government agencies and their local offices funding priority programs of local government units, including those that improve the delivery of population-related services.

B. Local Government Units

Despite the absence of a national policy framework on family planning, the nine coastal towns around Lamon Bay can still address population-related issues. In doing so, they must heed ISO researches showing the preference of fisherfolks for natural family planning over artificial and conventional methods.

Officials of these municipalities can bridge the gap between population and the environment by using the Local Government Code to pursue and promote population and resource management. Section 2 (Declaration of Policy) and Section 16 (General Welfare) allow local governments to implement programs for the well-being of their constituents and for the environmental soundness of their natural resources.

And as the Fisheries Code of 1998 guarantees the protection of mangroves, officials of the nine municipalities can work with local legislative bodies—the *Sangguniang Bayan* - for a version of the Code that fits the prevailing contexts in Northern Lamon Bay.

