



POPULATION, HEALTH, AND ENVIRONMENT ISSUES IN THE PHILIPPINES

A Profile of Central Visayas (Region 7)

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Linking population, health, and environment (PHE) issues is becoming increasingly important for the Philippines, where natural resources and public health and well-being are often negatively affected by factors such as population pressures and poverty. Understanding these connections—including the economic and social context in which they occur—and addressing PHE issues in an integrated manner is critical for achieving sustainable development.

This regional PHE profile highlights key population, health, and environment indicators and important development challenges for the Central Visayas Region (Region 7). The profile is designed to help educators, policymakers, and community leaders identify key threats to sustainable development and explore possible approaches to addressing them. This profile is part of a series covering select regions of the Philippines, and is intended as a companion publication to the Population Reference Bureau's 2006 data sheet, *Making the Link in the Philippines: Population, Health, and the Environment*.¹

Overview of Central Visayas Region

With one of the highest population growth rates and one of the smallest amounts of forest cover in the Philippines, the Central Visayas Region faces significant population pressure and environmental stress, especially for water supply and quality (see Figure 1, page 2).

Region 7 is located in the center of the Philippines archipelago, bordered by the Visayan Sea to the north and the Mindanao Sea to the south. The region consists of four provinces: Bohol, Cebu, Negros Oriental, and Siquijor. Cebu Province is the main urban center, and Cebu City is the regional capital. Negros Oriental, in the eastern part of the island of Negros, is composed predominantly of rural communities.



Approximately half of the region is urban, and most population growth is expected to continue in urban areas. This growth will require robust policies and programs to ensure the availability of basic services and resources such as water, electricity, sanitation, waste management, public health services, and education. Planning is important because the region already falls below the national average in several of these areas, including access to safe water and sanitation.

SOCIOECONOMIC CONTEXT

- The incidence of poor families in Central Visayas is 24 percent, higher than the national average of 24 percent (see Figure 2, page 2). Poverty incidence within the region is highest in Negros Oriental (37 percent) and lowest in Cebu (17 percent).² As of 2006, per capita

Figure 1

PHE INDICATORS FOR REGION 7

| | |
|--|---|
| Population (2005) | 6,357,900 ^a |
| Population density (2000) | 345 people per sq. km. |
| Percent urban (2000) | 46% |
| Annual population growth rate (2000) | 2.8% |
| Lifetime births per woman (total fertility rate) (2003) | 3.6 |
| Married women ages 15–49 using contraception (2003) | 52% (any method) 36% (modern methods) ^b |
| Unmet need for family planning (2003) | 17% |
| Infant mortality rate (2006) | 22 infant deaths per 1,000 live births ^c |
| Forest cover | 30% |
| Number of threatened animal species (2004) | 48 |
| Protected areas (hectares) | 1,005,062 hectares |
| Families that obtain water from a safe water source (2002) | 69% |
| Families with sanitary toilet (2002) | 73% |

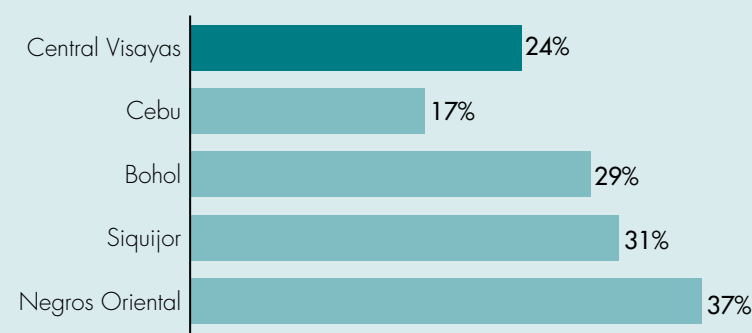
^a National Statistical Coordination Board, *Population Projections* (www.nscb.gov.ph/secstat/d_popnProj.asp, accessed Nov. 27, 2007).

^b National Statistics Office and ORC Macro, *Philippines National Demographic and Health Survey* (2003).

^c National Statistics Office, *2006 Family Planning Survey* (www.census.gov.ph/data/pressrelease/2007/pr0718tx.html, accessed Feb. 5, 2008).

SOURCE: Except where noted, data are taken from Population Reference Bureau, *Making the Link in the Philippines: Population, Health, and the Environment* (Washington, DC: Population Reference Bureau, 2006).

Figure 2

INCIDENCE OF POOR FAMILIES, 2003

SOURCE: National Statistical Coordination Board, *Poverty Statistics* (www.nscb.gov.ph/poverty/2004/table_1.asp, accessed Feb. 5, 2008).

gross regional domestic product at constant 1985 prices is 13,931 pesos, compared with 14,676 pesos for the nation.³

- The net enrollment ratio in primary education is 86 percent for the region.⁴ Simple literacy—the percent of the population 10 years old and older who can read and write—is 93 percent.⁵
- The unemployment rate is 7 percent, comparable to the national level.⁶
- Almost 70 percent of families in the region obtain water from a safe water source, less than the national average of 80 percent. Similarly, while 86 percent of all Filipino families have a sanitary toilet, only 73 percent of families in Region 7 have sanitary toilets.
- Because of limited agricultural land, the region's economy has been dominated by the service and industrial sectors. The service sector makes the largest contribution to the gross regional domestic product, about 60 percent, followed by the industrial sector at 30 percent.⁷

DEMOGRAPHIC AND HEALTH TRENDS

Central Visayas Region has a total population of 6.4 million people and a population density of 345 people per square kilometer. Among the island provinces of the region, the province of Cebu, which includes Metro Cebu City, has the largest population at 3.4 million (the most populous province in the Philippines) and is projected to reach 4.0 million in 2008. Almost half of the population in Region 7 lives in urban areas, and in Cebu more than 60 percent of the population is urban.

- The annual population growth rate of the region is 2.8 percent, higher than the national average of 2.4 percent. At the current population growth rate, the region's population will reach 11 million by 2040 (see Figure 3).
- Since 1993, Central Visayas has seen the total fertility rate decline from an average of 4.4 children per woman to 3.6. However, a gap remains between actual fertility and wanted fertility. Women are having, on average, one child more than they would like to have.⁸

- Approximately half of married women in the region use some method of family planning, while one in three uses modern contraception. This is slightly higher than the national figure of 33 percent (see Figure 4).
- Although the region has seen an increase in modern contraceptive prevalence over the last few years, about 15 percent of women have an unmet need for family planning. They would like to wait before having more children or would prefer to have no more children but are not using any method of family planning.
- As a key indicator of health status, the infant mortality rate in the region is 22 deaths per 1,000 live births, slightly better than the national average of 24 deaths per 1,000 live births.

NATURAL RESOURCES AND BIODIVERSITY ISSUES

The Central Visayas Region has some crop (mainly sugar cane, coconut, *palay*, corn, and cassava) and grazing land. However, little of the region's intact forests remain. Mineral resources—including silver, manganese, copper, gold, limestone, silica, and coal—are abundant and account for one of the largest revenue sources for the region. The waters surrounding the island provinces are well-known fishing grounds.

- Only the National Capital Region has less remaining forest cover than Central Visayas (74,869 hectares).

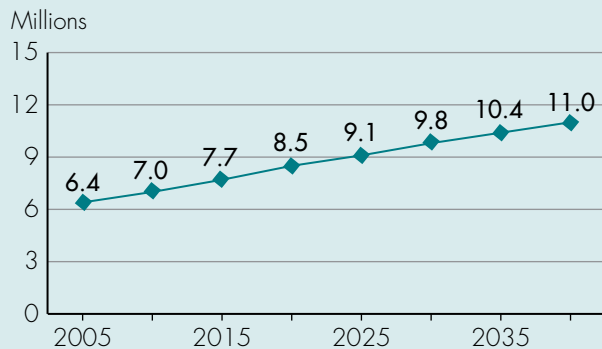
As of 2003, only 3 percent of the remaining forest in Central Visayas is considered “closed” or dense forest. Most of the forest cover (57 percent) is open forest, where the crowns of trees or shrubs only occasionally interlock. The remainder comprises mangroves (16 percent) and plantation forest (24 percent).⁹

- The region has 70,824 hectares of protected areas composed of natural parks, protected landscape/seascape, wilderness area, game refuge, and bird sanctuary.¹⁰ These protected areas help ensure the survival of rare species and maintain ecosystem services.
- Olango Island in Cebu, part of a bird sanctuary, supports the largest concentration of migratory birds found in the country (67 percent of a total of 77 species).
- Forty-eight species of threatened/endangered animals are in this region, including black shamah and flowerpecker in Cebu and the tarsier in Bohol. Threatened marine animals in the seas off Central Visayas include species of reef fishes, elasmobranchs (rays and sharks), and cetaceans.¹¹

The Philippine government has established national laws mandating local government units and coastal communities to sustainably manage coastal resources in ways that will enable the recovery and rehabilitation of the coastal environment. The Fisheries Code of the Philippines defined “municipal waters” to be waters under the

Figure 3

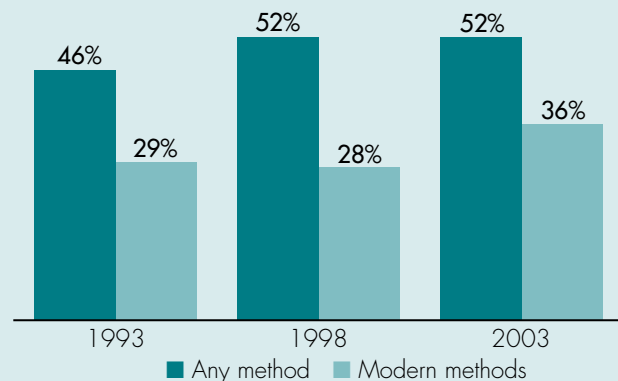
PROJECTED POPULATION OF REGION 7, 2005–2040



SOURCE: National Statistical Coordination Board, *Population Projections* www.nscb.gov.ph/secstat/d_popnProj.asp, accessed Nov. 27, 2007.

Figure 4

MARRIED WOMEN AGES 15–49 USING CONTRACEPTION, 1993, 1998, AND 2003



SOURCE: National Statistics Office and ORC Macro, *Philippines National Demographic and Health Surveys* (1993, 1998, and 2003).

jurisdiction of the municipal government, and only small fishers are allowed to fish in these zones.

- Danajon Bay is an extremely high marine priority area that feeds a million people in the four provinces (Bohol and Cebu in Central Visayas, and Leyte and Southern Leyte in Eastern Visayas) and 17 municipalities bordering the bay. The bay is the sole double barrier reef in the country and one of only three such sites in the Indo-Pacific region. With increasing population, the productivity of Danajon reef has declined due to overfishing and other manmade disturbances that are degrading coastal habitats.

In the Philippines, only five water bodies are class AA, the highest inland water quality classification requiring only approved disinfection to meet safe drinking water standards. Central Visayas is home to one of these water bodies, the Ginabasan River in Cebu. In contrast, the Guadalupe River, also in this region, shows poor water quality.¹²

Cebu is 99 percent dependent on ground water for its tap water source. A study conducted by the Department of Interior and Local Government and the GTZ showed that more than half of the towns and cities in Cebu have no access to potable water and that the potential for groundwater development to augment sources of water is low. The water supply problem is a result of forest cover loss and rapid urbanization, particularly in groundwater recharge areas.

The growing urban population of Central Visayas, especially Cebu Province, presents unique challenges to development planners and policy-makers. For example, with increasing population, Cebu Province has seen a concurrent rise in the number of motor vehicles. Diesel emissions from buses, jeepneys, utility vehicles, and trucks are estimated to be the largest contributor to air pollution.

- Air pollution is known to contribute to cardiovascular and respiratory diseases. Currently, the most widely monitored air pollutant is total suspended particulates (TSP). TSP are small solid and liquid particulates, such as dust, smoke, soot, and acid fumes, most often produced by motor vehicles and fuel-burning facilities. In 2004, the annual mean concentration in Cebu City ranged from 117 $\mu\text{g}/\text{Ncm}$ (microgram per normal cubic meter) in Baricutros Residence to



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A child waits to get clean water from this public tapstand in the village of Rizal, Daram Island, Philippines. Safe water is a very precious commodity in the rural villages of the island.

72 $\mu\text{g}/\text{Ncm}$ in Oportos Residence. The guideline value is 90 $\mu\text{g}/\text{Ncm}$.¹³

RESPONDING TO CHALLENGES

Recognizing the connections between people and their environment is critical for achieving sustainable development. Regional and local governments, along with smaller projects by the private sector and nongovernmental organizations (NGOs), designed and implemented programs to address the development challenges faced by Central Visayas Region. Highlighted below are three promising initiatives in the region.

The City Development Strategies Project

Seven cities in the region (Mandaue, Lapu-lapu, Bayawan, Bais, Tanjay, Dumaguete, and Canlaon) are currently participating in the World Bank-funded City Development Strategies Project. The project encourages and supports highly urbanized cities to address the issues of increasing population

densities, deteriorating environmental quality, rising cost of basic services, and increasing difficulty of local government units in providing adequate livelihoods for the growing urban population. For example, in Bayawan, project partners have established a rubber tree plantation, implemented road construction projects, constructed an urban potable water system, and begun construction on a wastewater treatment system.¹⁴

Integrated Population and Coastal Resource Management (IPOPCORM) by PATH Foundation Philippines Inc. (PFPI)

In 2003, the PATH Foundation Philippines Inc. (PFPI) entered into a partnership with a local conservation NGO—the Coastal Conservation and Education Foundation, Inc.—to replicate the IPOPCORM approach on Gilutongan Island. This small island *barangay* of the Municipality of Cordova was a community of 1,300 fisherfolk with limited public services and economic opportunities. In addition to providing support for family planning and coastal resource management, the project financed a microcredit facility that offered loans to community residents to start up alternative and environment-friendly enterprise development activities. As a result, borrowers have started a small bakery, seaweed cultivation businesses, community-based water distribution, and a water storage facility. By 2006, the water distribution association had repaid its loan and was continuing water distribution on its own. Other aspects of the IPOPCORM project also being sustained by the community include community-based distribution of contraceptives and 24-hour patrolling to prevent illegal fishing in the marine protected area. According to PFPI, contraceptive use (all methods) in Cordova increased from 33 percent in 2003 to 43 percent in 2006. The IPOPCORM project is being implemented in additional localities around Central Visayas Region.¹⁵

Alternative Advocacy Project by PFPI

Integrated PHE projects in the Philippines over the past decade have shown that family planning and reproductive health (FP/RH) enhances the effectiveness and sustainability of natural resource management (NRM) efforts.¹⁶ The Alternative Advocacy Project promotes these links between FP/RH and natural resource management and



The coastal and marine ecosystems of the Philippines are considered an important source of livelihood for 70 percent of the country's municipalities.

sustainable development at the local and national levels. The project aims to increase the knowledge of policymakers on demographic factors that affect the local environment and food security. The project also builds on coastal resource management (CRM) investments, policy reforms, and program development gains by mainstreaming FP/RH as a “best practice” and an essential CRM management strategy for food security and poverty alleviation. The project primarily targets the policymakers and stakeholders with jurisdiction over Danajon Bank, Bohol (described above).¹⁷

Raising awareness of the links between population, health, and environment among policymakers, development planners, and project implementers is essential for greater cross-sectoral collaboration in the Central Visayas Region and throughout the Philippines. An increased understanding of PHE connections will lay the foundation for more effective, participatory development efforts that increase human well-being and sustain healthy environments.

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¹⁰ Protected areas refer to “identified portions of land and water set aside by reason of their unique physical and biological significance, managed to enhance biological diversity and protected against destructive human exploitation,” as defined in the *Summary of Protected Areas by Region, Protected Area and Wildlife Bureau (PAWB-DENR), 2004*.

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