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Emergency Rescue Naga: An LGU-Managed Emergency Rescue Project

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Emergency Rescue Naga: An LGU-Managed Emergency Rescue Project

Virginia S. Pineda and Rose Buan

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PREFACE

This paper is one of the eight case studies in the health sector conducted under the project, "Population and Urbanization: Managing the Urbanization Process Under a Decentralized Governance Framework." The project is jointly undertaken by the Philippine Institute for Development Studies (PIDS), the National Economic and Development Authority (NEDA) and the Development Academy of the Philippines (DAP). Among the components of the project are case studies of selected cities highlighting their innovations in health, housing, and environmental management.

The main objective of the case studies is to identify the strategies of model cities that can be replicated by other cities and local government units, particularly in the financing and delivery of basic services under devolution and increasing urbanization.

This case study focuses on Naga City which was recommended by NEDA-Region V as a model city for health. The city's Emergency Rescue Naga (ERN) won as one of the country's Top 20 local government programs in the 1994 Galing Pook Awards. The ERN was also cited in 1995 by the National Disaster Coordinating Council as Bicol's and the Philippines' best institutional outfit in disaster preparedness and mitigation.

The paper is organized as follows. The first section gives a backgrounder on the city, its land area and population, health facilities, performance, and financing. This is followed by a presentation of the ERN, its rationale, functions, and accomplishments. The key elements for its success are then identified in the succeeding section. The next part focuses on the applicability of the ERN and some suggestions on how it can be replicated. Finally, the paper ends with some concluding remarks.

**EMERGENCY RESCUE NAGA:
An LGU-Managed
Emergency Rescue Project**

Virginia S. Pineda and Rose Buan¹

I. CITY BACKGROUND

Location, Land Area and Population

Naga City is located in the center of Camarines Sur, the biggest province in the Bicol Region. It is about 377 kilometers south of Manila and approximately 100 kilometers north of Legaspi City. It is bounded on the north by the municipalities of Canaman and Magarao; on the east, by Mt. Isarog and the Municipality of Pili, the capital town of Camarines Sur; on the south, by the Municipality of Milaor; and on the west, by the Municipality of Camaligan.

The city has a total land area of 77.5 square kilometers. It is composed of 27 barangays, of which 21 are classified as urban and six as rural. As of 1995, it has about 23,632 households.

Naga City's population is placed at 115,329 persons in 1990. By 1995, it has grown to 126,972 persons or by about 10 percent (National Statistics Office Census). Likewise, population density per square kilometer increased from 1,488 in 1990 to 1,638 in 1995. Of the total population in 1995, 84 percent live in urban areas and 16 percent in rural areas.

Health Facilities

Naga City has five (5) health centers and five (5) barangay health stations (BHS), with an average of 5-8 barangays as catchment areas. It has two (2) government hospitals and four (4) private hospitals. The latter have a combined capacity of 223 beds. One of the government hospitals is the Naga City Hospital which has a capacity of 16 beds. The other is a regional hospital, the Bicol Medical Center which has a capacity of 250 beds. It serves not only patients from Naga City but also those from neighboring provinces as well.

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Level of Health Welfare

Health indicators show improvement in health conditions in Naga City. Infant, child, and maternal mortality rates declined from 1990 to 1995 and were even lower than the national averages for the same years (Table 1).

On nutrition, the percentage of malnourished preschoolers, although higher than the national average, also dropped substantially from 72 percent in 1990 to 59 percent in 1995. Such decrease can be attributed to the intensification of nutrition-related activities in the city. These activities include food assistance, nutrition education, micro-nutrient supplementation and deworming.

Table 1. Mortality and Nutrition Indicators, 1990 and 1995

Indicator	1990		1995	
	Naga City	Philippines	Naga City	Philippines
Mortality Rates:				
Infant	49.6	56.7	42.2	48.9
Child	66.6	79.6	56.2	66.8
Maternal	150.7	209.0	128.1	179.7
Percentage of Malnourished Children (0-83 months old)				
Mild	45.3	41.3	36.2	30.7
Moderate	23.7	15.5	21.1	8.4
Severe	2.7	2.3	1.8	1.2
Total	71.7	59.1	59.1	40.3

Infant mortality: infant deaths per 1,000 live births

Child mortality: number of deaths among children less than 5 years of age per 1,000 children of the same age range

Maternal mortality: number of maternal deaths per 100,000 live births

Sources: Herrin (1998), National Statistical Coordination Board, Naga City Nutrition Office, and DOH Nutrition Service.

These trends are manifestation of an improved implementation of preventive and curative measures and of the better state of manpower and facilities. Bicol Medical Center, for instance, has 87 physicians, 28 nurses and other medical personnel. At the local level, the city has 1 physician, 5 nurses, 175 Barangay Health Workers (BHWs) and 120 trained birth attendants. There remains, however, a need for additional health manpower to serve the population.

Level of Health Expenditure

In 1991, prior to devolution, the city's expenditures on health was 3.6 million, which was 7 percent of its total expenditures. Of this amount, 48 percent was spent on basic health and 51 percent on the city hospital. In 1994, after devolution, the city's health expenditures increased to P10.5 million but its ratio to total expenditures slightly declined to 6 percent. Likewise, the proportion of basic health expenditures decreased to 41 percent while that of the hospital rose to 59 percent. In 1995, the share of health expenditures in the city's total expenditures increased to 8 percent. Of the 13.6 million health expenditures, 42 percent was for basic health and 58 percent was for the hospital.

II. EMERGENCY RESCUE NAGA (ERN)

The Emergency Rescue Naga is the city's emergency rescue service initiated by the government in 1991 to immediately respond to emergencies, disasters, and accidents. Its average response time is 3-5 minutes within the city proper and 30 minutes for the farthest mountain barangays some 17 kilometers away.

The ERN operates in consonance with its mandate as the emergency rescue unit and follows an action plan drawn up by the City Disaster Control Center.

A. Rationale

Naga City is located along the typhoon belt and is therefore prone to tropical storms and typhoons throughout the year. It is also deemed vulnerable to floods, earthquakes, fire, and accidents. When natural disasters and accidents occur, emergency rescue and medical assistance are crucial. Delayed and poor management of victims could result in more injury or even death to the patients.

Before the creation of the Emergency Rescue Naga (ERN) unit, emergency medical assistance to residents of the 27 barangays was seldom given, especially at night when transportation to distant barangays was scarce. This contributed to the high mortality and morbidity in these areas.

The motto of the ERN is "To serve so that others may live." It has the following objectives:

1. To minimize mortality and morbidity in cases of natural and man-made disasters; and
2. To establish protective measures at the earliest possible time to mitigate damages to lives and properties.

B. ERN Structure, Functions and Responsibilities

Lodged with the LGU-owned Naga City Hospital, the ERN Unit staff is directly under the supervision of the Chief of Hospital (Fig.1). Its core staff includes 1 paramedic personnel, a driver, and the volunteers. Regular hospital staff, numbering 40, are on call.

Aside from the medical personnel/paramedics, ERN has also 400 trained first responders and emergency medical technician volunteers who serve without pay because the ERN is for a good cause.

To ensure effective and efficient rescue operations, the city government and ERN follow certain guidelines and protocol on disaster preparedness, management and rehabilitation program. These guidelines specify the duties and responsibilities of the concerned local officials, the role of the evacuation centers, and the action plans that will be implemented.

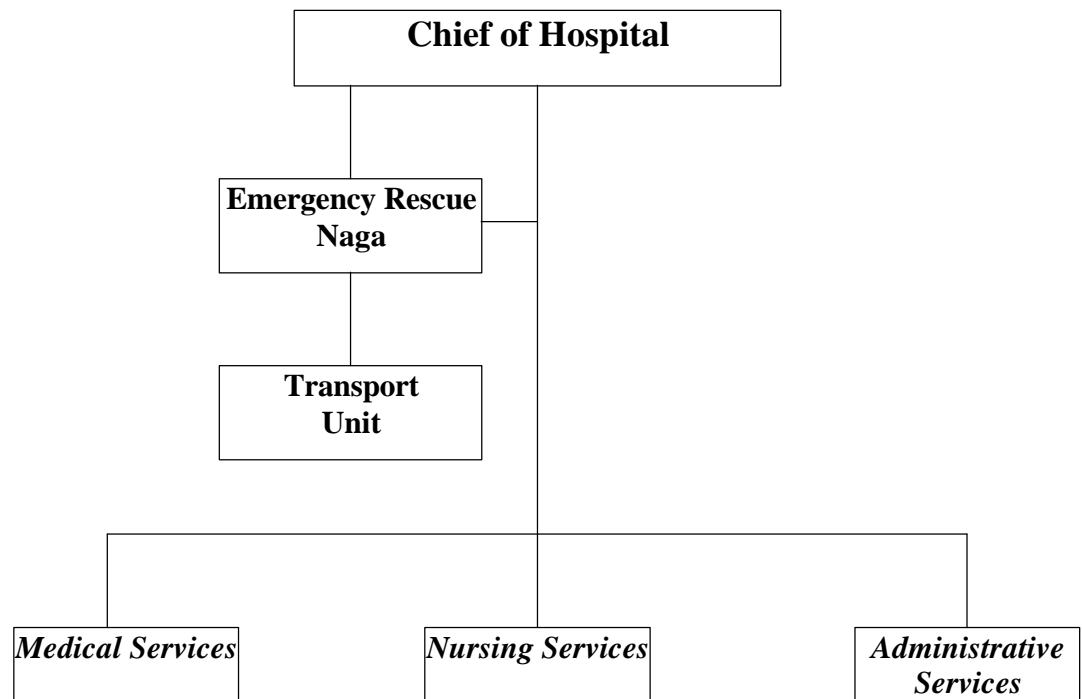


Fig. 1. Organizational Structure of the ERN

Emergency Rescue Naga has the following mandated functions:

1. Training of all volunteers on First Responders, and Emergency Medical Technician, Water Rescue and Survival;
2. Advise the City Mayor on rescue operations and evacuation plans and options prior to the expected disaster;
3. Coordinate with the City Engineer's Office (CEO), Bureau of Fire Protection (BFP), Philippine National Police (PNP), City Social Welfare and Development Office (CSWDO), and Office of the City Mayor on all disaster operations; and
4. Coordinate with the Camarines Sur Medical Society.
5. Check all medical emergency kits of BHS as well as vehicle and equipment to be used in emergency situation.

C. ERNs Standard Operating Procedures (SOP) for Emergency and Rescue

The usual procedure is to ask for the patient's name, address, and case once a call is received. An ambulance is sent to the patient with the assigned personnel taking note of the patient's vital signs, providing emergency treatment, assessing the patient's condition, and transporting him to the nearest or desired hospital. Volunteers are notified, in cases of big operations, through their beepers and handheld radios.

D. ERN's Notable Accomplishments

In 1994, ERN earned the Galing Pook Award as one of the country's 20 most outstanding local government programs. In 1995, it won the National Disaster Coordinating Council's Recognition Award as Bicol's and the country's best institutional outfit in disaster preparedness and mitigation. Among its notable achievements are as follows:

1. Rescue operations of stranded mountaineers in Mt. Isarog;
2. Rescue operations of residents trapped by flood water at the height of super typhoons Monang and Rosing;
3. Rescue operation for a barangay during a tornado;

4. Transfer of patients across the Bicol River after the collapse of Mabulo Bridge, in Naga City;
5. Medical assistance during the Palarong Pambansa held in Bicol on April 1997; and
6. Conduct of regular trainings on Disaster Preparedness and Management to ERN volunteers, civic and religious groups.

Supporters of the project take note of ERN's quick response to an average of 6.2 emergency calls per day in 1996 from only a third of this total in 1991. For 1996, the ERN responded to a total of 2,259 emergency and transport cases.

E. PROBLEMS ENCOUNTERED

The ERN problems relate to inadequate facilities, such as lack of training area for emergency medical technicians and storage room for supplies. To address these needs, additional funding will be obtained from the city government.

The ERN also receives prank calls. The ambulance crew finds out when they go to the location specified that there is no accident or emergency. False calls may be discouraged by asking for the telephone number and calling the same number after a few moments to check if it really exists. Calls may also be coursed through the barangay captains or barangay health workers who can confirm the need for emergency and transport assistance. The city could also disseminate more information to instill proper regard for ERN and devise ways to catch prank callers and penalize them.

Except for occasions or events when volunteers are enjoined to assist, the ERN staff finds it difficult to gather most of the volunteers. This is the reason why the ERN Volunteers Group has drawn up a program of activities to sustain active membership.

III. KEY ELEMENTS FOR SUCCESS

1. Spirit of Volunteerism

The ERN's noble cause and the motivation by recruiters encourage people to volunteer. A clear indication of popular support for the ERN is its 400 volunteers consisting of students and youth, nurses and other medical personnel. This means substantial manpower supply at minimal cost since the city does not give compensation to volunteers. It only provides them food (while on duty), uniform and group insurance.

ERN volunteers have also organized themselves. They have their own set of officers who have drawn up a program of activities to activate membership and conduct training sessions.

2. Capability Building

With the able leadership of the chief of the Naga City Hospital, Dr. Vito Borja, the ERN staff and volunteers were trained on various areas, such as Emergency Case Management, First Aid, and Disaster Management Workshop for Water Rescue. Informal trainings actually took off from the initiative of a vacationing overseas contract worker who volunteered to conduct emergency management trainings for the ERN staff. These were followed up by Dr. Borja who has been trained on Rescue 911's Operation Medical Technician Course. News of such conduct of trainings spread to other municipalities and various groups who volunteered to be trained by ERN. These groups include government and private organizations, Bureau of Fire Protection (BFP), Philippine National Police (PNP), BAYANTEL, youth associations, people from the mass media (CARE), and ambulance staff and medical personnel from neighboring municipalities. A total of 827 individuals have been reportedly trained.

3. Administrative Mobilization by the City Government of Naga

The ERN is the fulfillment of Mayor Jesse M. Robredo's vision of having Naga's own emergency rescue services. It became operational as funds were allocated for its operation. The ERN group also persisted despite the limited resources at the start.

At present, the ERN has spawned the Metro Naga Emergency Rescue Network with the institutionalization of a partnership among the rescue and disaster services of Naga City and its neighboring municipalities. Hence, municipalities under Metro Naga share their ambulances, fire trucks, and other facilities.

4. Support from other government entities and non-government organizations

The ERN enjoys the support of other government entities such as the PNP, BFP, City Disaster Coordinating Council (CDCC), Camarines Sur II Electric Cooperative (CASURECO II), Metro Naga Water district, CSWD and CEO. At the barangay level, ERN has also the support of the Barangay Emergency Disaster Brigade.

NGOs and service organization, civic organizations and business establishments also offer services in kind or cash during rescue operations and big events through the ERN.

5. Effective Communication Channels and Networking

The ERN has two telephone hotlines in operation: Bayantel's 168 and Digitel's 169. These are complemented by two VHF controls (148.5 and 147.90). Volunteers are equipped with beepers. Calls to ERN come not only from Naga City but also from neighboring municipalities owing to ERN's lead role (control center) in the Metro Naga Emergency Rescue Network. Within Metro Naga, an extensive radio network was set up

linking all offices of the mayor, the ambulances, and the police and fire stations. Handheld radios were also distributed to key personnel of each LGU. Of the 15 LGUs comprising Metro Naga, only four have fire protection bureaus and five have ambulances. Making the ERN metro-wide enabled sharing of these limited facilities and magnified their benefits.

IV. APPLICABILITY AND REPLICATION

The ERN is applicable to cities prone to disasters and accidents, and where emergency rescue and medical assistance are lacking or inadequate. It facilitates health service delivery and serves as referral of patients to hospitals. More importantly, it saves lives and stops or minimizes deterioration of patient condition. Any city intending to have its own emergency rescue and medical services can follow Naga City's example, as discussed below:

1. Facilities

Just like Naga, other cities can start even with one ambulance. They may be able to request it (and possibly, additional units) from donor agencies, such as the Philippine Charity Sweepstakes Office (PCSO) or the Philippine Amusement and Games Corporation (PAGCOR). One or more telephone hotlines may be used for emergency calls. These can be supplemented by VHF radios distributed to key LGU officials and to police and fire stations which would be involved as participating partners. Beepers may be supplied by the city or by the volunteers themselves.

2. Volunteers and Trainings

Cities would need recruiters who can present emergency and rescue services as worthy undertaking as well as inspire volunteerism among the people. Initially, they may request Naga's assistance in training recruiters and volunteers. They may also ask help from the Emergency Rescue Unit Foundation (Philippines) Inc. or ERUF, a non-governmental organization (NGO) based in Cebu City. ERUF is willing to share its experiences in planning and running an emergency rescue program to interested LGUs and NGOs.

3. Guidelines on disaster preparedness, management and rehabilitation

To ensure orderly implementation of activities on disaster preparedness, management and rehabilitation, other cities could prepare guidelines specifying the duties and responsibilities of the concerned local officials, the evacuation centers, and the action plans that will be implemented during emergencies or disasters. They may also adopt the guidelines of Naga City, modifying them accordingly to suit their own conditions and facilities.

Naga City provides free emergency rescue and medical services to the people but such services have costs. For 1997, it spent ₱150,000 for the ERN. To recover costs, even partially, Naga and other cities could charge service fee to persons served who can afford to pay. They can also generate funds by conducting trainings and seminars to organizations for a fee. Financing from such sources may enable the cities to increase and improve their emergency facilities and services.

V. CONCLUDING REMARKS

From being only a vision, the ERN has become a reality as a result of the willingness of the city leaders and health personnel to proceed with the project even with very limited resources, together with the people's readiness to give voluntary services for a worthy cause. Following Naga City's example, other cities can also provide emergency rescue services to their constituents.

The ERN is a good model not only for cities but also for metropolitan arrangements as well. Just like what is being done in Metro Naga, other metropolitan arrangements can also pool their resources to provide emergency rescue services on a metro-wide basis. Such combination of resources and joint undertaking would extend the benefits to more people.