

DISASTER MANAGEMENT WITH EMPHASIS ON COMMUNITY PARTICIPATION AT THE MUNICIPAL LEVEL STUDY OF "HURRICANE" GEORGES

National General Staff of the Civil Defense Republic of Cuba

I. Background

On July 31, 1999, the Civil Defense of Cuba marked the 37th Anniversary of its formulation. Throughout this time, the Civil Defense has been faced with difficult and complex problems of great responsibility.

The constant fight against hurricanes and heavy rains, storm surge, epidemics, plagues, diseases in agriculture, which have affected the population and the economy; as well as mitigation and coping with all sorts of chemical accidents (just to mention a few examples), have marked the significance of the Civil Defense of Cuba. We stress that the State constantly directs and gives great attention to the protection of the population and the national economy. The need is to meet with a high response capacity any disaster situation based on the coordinated participation of all state bodies and agencies, economic entities, and social institutions, all with the use organized forces of the people.

On October 1962, the western part of Cuba was hit by hurricane Flora. More than 1,200 people died, a high number of people were injured, and heavy material losses in agriculture, housing, and the infrastructure occurred. As a result of the analysis by the Government of the consequences of this hurricane, on July 1966 Law 1194 was passed, creating the Civil Defense System of the country, led by the President of the Republic and based on the National Civil Defense Council; similar Councils were established in the country's provinces and regions.

On July 1976, as a result of an institutional reorganization of the State, Law 1316 was passed, to further perfect the Civil Defense System; this Law was in force till 1994, at which time the National Assembly of the People's Power issued National Defense Law 75. As a complementary document to this Law, on May 1997 the State Council passed Decree-Law 170 on the System of Civil Defense, that focuses on the topic of disaster coordination in detail.

II. Main Functional and Organizational Concepts

1. Definition, Missions and Directions of Civil Defense in Cuba

The Civil Defense in Cuba is defined as a measured system of protection of the State, carried out both in normal and exceptional situations, aimed at protecting the population and their property, the infrastructure, and the national economy in general against all kinds of disasters, including the consequences of environmental deterioration. Civil Defense also includes the implementation of salvage and rescue work, urgent repair of damage, and other rehabilitation activities

The Civil Defense is organized within the entire country on the basis of political administrative divisions and the corresponding State structure. Civil Defense activities are supported by the use of human and material resources of state bodies and agencies, economic entities, and social institutions.

The President of the State Council directs the Civil Defense through the Ministry of the Revolutionary Armed Forces, who has the support of the National Staff of the Civil Defense, that is the main directing body of this System. The national staff is in charge of seeing to the fulfillment of civil defense measures, international norms and agreements related to civil protection of the Republic of Cuba, and of coordinating cooperation programs and international help in case of catastrophes.

The Presidents of the Municipal and Provincial Governments of the People's Power are the heads of the Civil Defense at their levels; and they support the work of existing Civil Defense bodies in each territory.

The measures for Civil Defense are planned, organized, and implemented by the State bodies and agencies, economic entities, and social institutions; and the highest leaders have responsibilities for their fulfillment. These measures are of binding force for the entire population, with everything documented in the legislation in force.

The concepts above have been implemented in a practical way for many years. Experience gained has allowed us to confirm that this Civil Defense Management has proven adequate under our economic and social conditions.

2. Principles of the Civil Defense in Cuba

The experience and studies carried out in our Civil Defense System, and its functioning in different disaster situations during the last several years, have confirmed the validity of the principles on which this system is sustained in our country

These principles are.

- Direction at the highest level
- Multi-disciplinary nature of protection with national and institutional scope
- Differentiated form of planning and organizing protection
- Effective cooperation with the Revolutionary Armed Forces and the Ministry of the Interior
- Organization according to the country's socio-economic development

Apart from its objective nature, these principles are backed by the legal framework behind our Civil Defense and disaster management. In this analysis, we are only going to refer to two principles:

- In relation to the direction at the highest level, we have already explained the way the Civil Defense is organized, so we are now going to refer to the multi-disciplinary nature of protection, and that the civil defense should ensure protection against any kind of disaster, both caused by threats of natural or technological origin, as well as in case of armed aggression against the country.
- The national and institutional scope refer to civil defense measures organized in all territories at all levels: by the bodies of the State Central Administration and other leading entities with national scope, the respective direction of mass organizations and their representations at all levels; as well as all kinds of productive, service, commercial, and research entities among others

III. Main Disaster Threats that can Affect Cuba

Our country is subject to threats: natural threats due to our location and geographical characteristics, and technological threats due to the fact that this type of risk exists together with the scientific-technical, industrial and social development our country has reached. Among the most common dangers that can affect partially or totally our country are the followings:

- Hurricanes
- Tropical storms and severe local storms with heavy rains
- Serious droughts
- Salt water intrusion
- Seismic events
- Water storage failures
- Rural forest fires and urban fires
- Epidemics
- Plagues and plant diseases
- Hydrocarbon spills
- Gas and volatile toxic liquid leakage
- Air, maritime, and land transportation accidents

- Landslides
- Others

Natural disasters have a negative impact on all socioeconomic aspects, delaying breakthroughs in socioeconomic development with the disruption of development programs; and the loss of important resources allotted to development that have to be partially devoted to meet emergency needs. Likewise, there is a negative impact on the investment environment.

On the other hand, socioeconomic development that does not take into account the risks of disasters may increase disaster vulnerability of dense human settlements, the creation of infrastructure in dangerous places, environmental degradation, and the formation of possible conditions for technological accidents or faults among others. However, the effects of phenomena causing disasters may be reduced by the identification of the danger by the assessment of vulnerability and risk, as well as by the implementation of preventive measures in the process of integrated development and the execution of investment projects.

Disaster risks have been reduced in Cuba in the last three decades under the influence of:

- The creation of a measurement system for the protection of the population and the economy against the effect of potentially destructive phenomena.
- The incorporation of preventive measures and for reduction of disasters in the development planning process and in research.
- The development of a legislative body for land use, water and forest management, and construction practices.
- Implementation of structural measures such as: hydraulic construction to secure adequate water resources for consumption by the population, water use in agriculture, and water regulations in nature in case of sudden floods.
- The creation and further development of surveillance and warning systems in the face of the main dangers affecting the country, as well as the strengthening of scientific institutions.
- The improvement of living conditions of the population in general, and health and other indicators of social nature.
- The disaster preparedness of workers and the population in general.

IV. Planning and Organization of Protection Measures

The planning and organization of Civil Defense protection measures in the event of catastrophes start in the community: as well as in working centers, agencies, schools, enterprises, and other entities. This work continues in municipalities and provinces and finishes at the national level. Nonetheless, its main force is present in the community with the wide participation of our people, workers, and students.

The plans for Civil Defense in case of catastrophes are formulated at all levels, according to the procedures for their presentation, approval and scope, as established by the National Major Staff of the Civil Defense.

The plan for Civil Defense at all levels is based on the following aspects:

- Result of the existing danger, vulnerability, and risk studies.
- Prevention measures, response, and rehabilitation (by phases) in the face of past disaster events.
- Preparation of all levels of the population.
- Organization and leadership.
- Organization and maintaining communications.
- Securing measures in general.
- Cooperation measures.

The national experience in preparations to respond to disasters and to cope with disasters has proven that the existing functional and structural organization fits the response to several situations we have been faced with. Some of the recent examples in which the Civil Defense System has been applied to are:

- Coping with Hurricane Lili and previous threats and affectations by meteorological phenomena.

- The country's response in the face of epidemics such as hemorrhagic dengue in 1981 and epidemic neuropathy in 1993.
- Coping with swine fever throughout the country.
- Coping with different crop plagues such as the Thrips Palmi, now underway.
- Response to chemical accidents of different magnitude and nature.
- Others disasters.

V. Community Participation and Response at Municipal Level

As we have said earlier, the President of the Government at the provincial and municipal level is the Head of the Civil Defense within the community.

The President of the People's Council, who is the Government at that level, is in charge of this task.

In the municipality, the plan in case of catastrophes and its periodic updating is carried out based on strict planning starting from the higher levels, taking into consideration danger studies, risk analysis, and vulnerability. For this planning the following actions are taken.

- A multi-disciplinary and multi-sectorial Group is established, made up by the main bodies and experts that participate in the danger analysis concerned. This Group takes different characteristics into consideration according to the kind of threat posed.
- The municipal Group studies with all the necessary elements, and in some cases with scientific research, the danger, vulnerability, and risk existing in the communities within its territory; and based on these elements, makes the municipality Plan.
- To make this Plan, the People's Council concerns are also considered in every detail and in every element at their level, making possible better coordination for the Plan.
- In the community of the People's Council, the Plan is prepared with their corresponding assistance.

VI. Plan Contents at Various Levels

The elaborated Plans have a clear picture of the danger we are studying, an analysis of the situation that might arise in the face of the threat, and the preventive and preparation measures necessary to bear in mind: which are always planned by different phases or stages, and that are fulfilled during and after a disaster has taken place.

These Plans have the necessary guarantees for their implementation and have the resources of State bodies and agencies, economic entities, and social institutions based in the territory involved. The most important guarantees are the following:

- Medical security
- Transportation security
- Food security
- Communication security
- Safe drinking water security

These Plans detail the cooperation among territories in a document called a "Cooperation Act" to justify such activity.

The forces and means used in carrying out rescue and urgent repair of damage are foreseen, both internal damage or external damage within other territories concerned under the Cooperation Act.

Instruction and information to the population and to workers on norms of behavior to be followed in each situation are planned. All the mass media within the territory is devoted to this purpose, and they are subordinated to the fulfillment of this mission.

The organization of communication methods to be used is foreseen, and they are integrated into a unique system.

Under the Community Plan, besides the described assurances, also taken into consideration is the location and condition of shelters for evacuated persons; these are people who lose their houses or are living in high risk areas of disasters, as well as food processing centers linked to these shelters. The evacuated population is supplied food in a differential way grouped by age. Likewise, they are given primary medical care in these sheltered places

The community participates in activities and tasks to reduce vulnerability and risk in case of catastrophes through work carried out every year in "Meteoro" drills, to prepare the country prior to the cyclone season. Since 1990, the country has established *a Day for Disaster Reduction* within the framework of the International Decade for Natural Disaster Reduction set up by the United Nations, and with other dates for similar disaster mitigation tasks.

Thank you.

