

Hurricane Michelle in Cuba: An example of successful disaster prevention

by

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1. Introduction

Hurricane “Michelle” formed in the Gulf of Honduras on 2 November, 2001.

On 4 November, midday, Michelle hit the “Isla Juventud” and between 9:00 and 11:00 p.m. it crossed the main island of Cuba entering near the Bay of Pigs and leaving at the north coast between the Provinces of Matanzas and Villa Clara, reaching wind speeds of up to 220 km/h (category 4 on the Saffir-Simpson-Scale). Michelle was the strongest hurricane affecting Cuba in the last 50 years.

It was reported that 5 people lost their lives and 12 people were injured, but damage was moderate. Principal damage affected the sectors of dwellings/building infrastructure, agriculture and communication:

- 43,076 dwellings damaged, principally in the Provinces of C. Habana, Matanzas, Cienfuegos and Sancti Spiritus.
- 1,520 social/economic infrastructure damaged such as hospitals, schools, industry and agriculture installations.
- Loss and damage to agriculture including banana, citrus, sugar cane, and yucca.
- Hundreds of telephone and communications poles as well as some communication towers broken.

2. National System of Civil Defense

During the inactive period, the headquarters of national defense are constituted by the military on national, provincial, municipal and zone level. Apart from plans for other catastrophes, the hurricane plan is actualised every year before the hurricane season (1 June until 15 November). The National Headquarter of Defense stays in steady contact with the Institute of Meteorology and decrees, in case of possible effects by a cyclone in the next 72 hours the “Informative Phase”, in 48 hours the “Cyclone Alert”, in 24 hours “Cyclone Alarm” and after leaving the national territory, the “Rehabilitation Phase”. When the first phase is decreed, headquarters on all levels get active and the command is taken by the military (FAR) together with the Cuban Communism Party (PCC) and the provincial or municipal government as well as representatives of all administrative and political institutions, companies, co-operatives, etc. According to the phase, planned measures will be realized.

3. Principle Taken Measures for Disaster Reduction in the case of Hurricane Michelle

From west to east all eight Provinces up to Ciego de Avila received the decree up to “Hurricane Alarm”, Camagüey up to “Cyclone Alert” and the east Provinces of Tunas, Holguín and Granma stepped into the “Informative Phase”. From 5 November onwards the “Rehabilitation Phase” started.

- Evacuation of 712,792 people of which 270,000 have been evacuated for a longer time needing food and medical care.
- Transfer of 777,668 animals to safe areas.

Therefore, the 12 provincial and 150 municipal headquarters for civil defense comprising 87,319 people have been activated. In all, 5,428 transports were used for evacuation, transfer, etc. The following disaster reduction activities were realized in the corresponding phases:

Step 1: Informative Phase (1 November)

- Hourly information by radio and information through television and newspaper. In every institution the employees were informed by their representatives of the Council of Civil Defense.
- Cutting of trees to prevent electricity interruption, recollection of garbage, cleaning of canal system starts.
- Organization/preparation for evacuation of people and transfer of animals begins.
- Students working in the fields are sent home in provided transport.
- Capacity of storage lakes analysed.
- Harvest collection starts.

Step 2: Cyclone Alert (2 November)

- Accommodation with food and medical care is provided.
- Evacuation of people living in possible flood areas.
- Transfer of animals.
- Transfer of material located in insecure stockrooms.
- About 7,000 tourists have been evacuated.

Step 3: Hurricane Alarm (3-4 November)

- One TV channel is used only for transmission of hurricane information.
- Intensive evacuation.
- Circulation of unauthorized people and vehicles prohibited.

Step 4: Rehabilitation (5 November onwards)

- Evaluation of the situation.
- Planning and organization of measures to be taken for rehabilitation.

4. Conclusion

Perhaps in other countries similar manuals exist for national defense in cases of war, chemical accident or attack and all kinds of natural disasters, which cannot be realized very well or at all because of lack of organization. In the case of Cuba it does work. The Cuban neo-patrimonial system based upon Fidel Castro's charisma and a bureaucratic-authoritarian government is decisive. The importance of the military and political organization from the national level down to each block (CDR=Comité de Defensa de la Revolución) in a village or city, to each company, economic, administrative or political institution. Lack of information flow does not exist, because of total control and "the unity of revolutionaries which leads to the unity of the nation". This is the heritage of the proud revolutionary nation, of the important role Cuba played in the Cold War and its present extraordinary position in the Latin American world. Cubans learned to be prepared for defense of their country every time.

5. Sources

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