III. Other Resolutions

Ministry of Territorial Policy, Sustainability and Security

3785 *DECREE 112/2018, of July 30, which approves the Special Plan for Civil Protection and Emergency Attention due to volcanic risk in the Autonomous Community of the Canary Islands (PEVOLCA).*

Law 17/2015, of July 9, of the National Civil Protection System, defines in its article 14 Civil Protection Plans as forecasting instruments of the organic-functional framework and the mechanisms that allow the mobilization of resources human and material resources necessary for the protection of people and property in the event of an emergency, as well as the coordination scheme of the different Public Administrations called upon to intervene.

Article 15 of the aforementioned State Law includes the different types of Plans, characterizing Special Plans, in section 3, as those of a state or regional level whose purpose is to deal with certain risks, among which are Find the volcanic hazard.

For its part, the Basic Norm of Civil Protection, approved by Royal Decree 407/1992, of April 24, in force in everything that does not contradict or oppose the provisions of the aforementioned Law, establishes in its section 8.2 that the Autonomous Communities will prepare and approve their corresponding Special Civil Protection Plans.

In the Autonomous Community of the Canary Islands, said authority for approval rests with the Government, in accordance with the provisions of article 28.c), in relation to article 31.1, both of Law 9/2007, of April 13, of the Canary Islands Security and Emergency System and of the modification of Law 6/1997, of July 4, of Coordination of the Local Police of the Canary Islands; consigning in section 4 of the aforementioned article 31 that the agreements or decrees of approval of the Emergency Plans will be published in the Official Gazette of the Canary Islands.

The purpose of this Decree is to approve the new Special Plan for Civil Protection and Emergency Attention due to Volcanic Risk in the Autonomous Community of the Canary Islands (PEVOLCA), replacing the one approved at the time by Decree 73/2010, of July 1 (BOC nº 140, of July 19, 2010), in order to provide a quick, effective and coordinated response of public and private resources to emergencies of this nature.

In accordance with the provisions of section 7.2 of the aforementioned Basic Civil Protection Standard, in the elaboration of said Special Plan, the minimum requirements regarding organization, operational criteria, intervention measures and coordination instruments provided for in the Basic Directive of Civil Protection Planning against Volcanic Risk, approved by Agreement of the Council of Ministers of January 19, 1996 (BOE No. 55, of March 4, 1996).

The mentioned Special Plan has been informed favorably by the Commission of Civil Protection and Emergency Care of the Canary Islands dated April 28, 2017, and

by the Permanent Commission of the National Civil Protection Council, in a session held on December 12, 2017.

By virtue, at the proposal of the Minister of Territorial Policy, Sustainability and Security, and after deliberation by the Government at its meeting on July 30, 2018,

I HAVE:

First.- Approve the Special Plan for Civil Protection and Emergency Attention due to Volcanic Risk in the Autonomous Community of the Canary Islands (PEVOLCA), which appears as exhibit.

Second.- Annul Decree 73/2010, of July 1, which approves the Special Plan for Civil Protection and Emergency Attention due to Volcanic Risk in the Autonomous Community of the Canary Islands (PEVOLCA).

Third.- Publish this Decree in the Official Gazette of the Canary Islands.

Against this act, which puts an end to the administrative procedure, it is possible to file an optional appeal for reinstatement before the Government of the Canary Islands, within a period of one month from the day following its publication, or directly a contentious-administrative appeal before the competent Chamber of Contentious-Administrative Matters of the Superior Court of Justice of the Canary Islands, within a period of two months from the day following its publication; meaning that, in the case of filing an appeal for reversal, no contentious-administrative appeal may be filed until it is expressly resolved or the presumed dismissal of the same occurs, and all without prejudice to any other that may be filed.

Given in the Canary Islands, on July 30, 2018.

THE PRESIDENT
OF THE
GOVERNMENT, Fernando Clavijo Batlle.

THE COUNCILOR FOR REGIONAL POLICY,
SUSTAINABILITY AND SECURITY, Nieves
Lady Barreto Hernández.

EXHIBIT

Gobierno de Canarias

SPECIAL PLAN OF CIVIL PROTECTION AND EMERGENCY CARE DUE TO VOLCANIC RISK IN THE COMMUNITY AUTONOMOUS CANARY ISLANDS

VOLCA

GENERAL DIRECTORATE OF SECURITY AND EMERGENCIES

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CHAPTER 1. GENERAL FEATURES.

1.1.- PREAMBLE.

The Canary Islands is the only Autonomous Community that registers volcanic activity important within the Spanish State, having suffered in the last sixty years various major volcanic crises. The characteristics of an emergency volcanic activity, its probability of occurrence, as well as the important consequences for the population, goods or the environment, in a limited territory and widely town make it necessary to develop a Special Emergency Plan for Civil Protection that guarantees a quick, effective, efficient and coordinated response, aimed at minimizing possible damage and allowing the restoration of services essentials for the population in the shortest possible time.

The stages of volcanic inactivity in the Archipelago make the perception of the volcanic risk among the population is presented as very remote, focusing its attention to other annual risks that also cause serious losses human and material: storms of wind and waves, floods, fires forestry, etc. Activities aimed at reducing risk in the planning, dissemination, simulation or exercises must take into account the possible social impact and awareness of the resident and tourist population.

In the Canary Islands, not all the islands have the same level of eruptive activity. recent, nor the same probabilities that eruptions take place in them volcanoes in the near future. The volcanic risk has manifested itself during the historical epoch for the islands with greatest intensity in the western islands of La Palma, Tenerife and El Hierro, registering a volcanic eruption in the latter submarine in the year 2011 and several seismovolcanic crises in the years 2012 and 2013. The Lanzarote island, considered volcanically active, has had two eruptions of great importance, (1730 and 1824). In Gran Canaria no eruptions have taken place historical but during the last 10,000 years, which makes it an island volcanically active. On the other hand, on the islands of La Gomera and Fuerteventura, without historical volcanism, and without quaternary volcanism in the case of La Gomera, the risk of eruption is relatively low.

Although volcanic activity, compared to other hazards, is less frequent in the archipelago, the rapid population growth of our islands, the high

tourist traffic and the fragility and degree of dependency of the service network basics, considerably increases vulnerability and advises paying special attention to surveillance and prevention measures.

The basic regulations for the development of emergency planning systems part of Royal Decree 407/1992, of April 24, which approves the Basic Regulation of Civil Protection, provided for in article 13 of Law 17/2015, of July 9, on the System National Civil Protection, which establishes the basic guidelines for the identification of emergency risks and actions for their integral management, the minimum content and general criteria for the preparation of Protection plans Civil, and of the development by the competent bodies of the implementation activities necessary for its proper effectiveness. The Basic Standard provides that they be object of Special Plans, among others, emergencies due to volcanic risk. to such effect, by Resolution of February 21, 1996, of the Secretary of State for the Interior, the publication of the Agreement of the Council of Ministers approving the Basic Planning Directive for Civil Protection against Volcanic Risk, which establishes the minimum requirements on foundations, structure, organization, operational criteria, intervention measures and coordination instruments that must comply with integrated emergency planning systems by risk volcanic.

For its part, the Territorial Civil Protection Plan of the Autonomous Community of Canarias, PLATECA, within the jurisdictional framework that the legal system attributes to the Autonomous Community, anticipates the need to draw up an autonomous plan to deal with the risk arising from volcanic eruptions within the Community Autonomous of the Canary Islands.

This document defines the organizational structure, procedures for action and information to the population, the coordination procedures with the plan state, the system for integrating emergency plans with local entities, as well as the phases of action according to the emergency classification criteria.

These action procedures must be coordinated with the rest of the Public, insular and municipal administrations, as well as with the State, which through the publication of the Resolution of January 30, 2013, approved the Plan

State Civil Protection against Volcanic Risk in order to support the
Autonomous Community of the Canary Islands in case of volcanic activity.

This document constitutes an effort that is also the result of experience
acquired during the 2004 (in Tenerife) and 2011-2013 (in El Hierro) crises that
led at the time to an exercise of integration of all the administrations
to develop a coordinated action plan for the islands of Tenerife and El
Iron. If we add to this a series of consultations with the different organizations and
national, regional and local institutions, all this leads us to achieve a
document that is the present Special Plan for Civil Protection and Attention of
Emergencies due to Volcanic Risk in the Autonomous Community of the Canary Islands, PEVOLCA.

1.2.- OBJECT.

The purpose of PEVOLCA is to guarantee a coordinated, agile, effective and
efficiency of all public administrations to deal with crises
seismovolcanics, which can give rise to both subaerial and
submarines, and emergencies derived from them and that originate in the
territory of the Autonomous Community of the Canary Islands, as well as ensuring compliance
of the prevention measures contemplated in the current regulations.

1.3.- GENERAL FRAMEWORK.

The PEVOLCA establishes the organization and procedures of action of the resources and
services whose ownership corresponds to the Canary Islands Public Administrations, as well as
as well as those that may be assigned to it by the General Administration of the
State or by other public or private entities, in order to deal with
seismovolcanic emergencies within the autonomous territorial scope.

The PEVOLCA will integrate the Action Plans at the local level (Municipal and
Islands) in emergencies due to volcanic risk.

In turn, PEVOLCA is integrated into the Territorial Plan of the Autonomous Community of
Canarias (PLATECA) referred to in RD 407/1992, of April 24, by which
the Basic Norm of Civil Protection is approved, which contains the guidelines for the

elaboration of the Territorial Plans, and indicates the types of Special Plans that It will have to be developed to deal with specific risks.

On the other hand, this Plan specifies the appropriate coordination mechanisms between the different organizations involved in order to ensure the necessary operational coherence between them, in order to avoid dysfunctional situations.

Consequently, the general planning structure developed in this Plan obeys the following principles:

- Complementarity of the functions assigned to each level of planning.
- Coordination and reciprocal assistance between the organizations corresponding to different levels.
- Integrability of emergency systems at different levels.
- Organizational coherence with territorial planning.

1.4.- BASIC FUNCTIONS.

The following functions are established in the organizational framework of the Special Plan:

- Provide the organizational structure and procedures for intervention in emergencies due to volcanic risk within the territory of the Canary Islands from a vision of coordinated operation of public administrations.
- Provide the mechanisms and procedures for coordination with the State Plan for Civil Protection against Volcanic Risk, to guarantee its adequate integration.
- Establish the articulation systems with the organizations of the Insular and Municipal Administrations, in the territorial scope of the Canary Islands.
- Zoning the territory according to the risk and the foreseeable consequences of the volcanic eruptions, including submarine ones.
- Establish a catalog of infrastructures, facilities, activities and Spaces Protected Natural Areas, which due to their characteristics must prepare their corresponding Self-protection Plan.

- Provide by the corresponding public administrations the systems organization for the framing of volunteer personnel.
- Specify information procedures for the population.
- Catalog the specific means and resources available to the actions planned.
- Establish the implementation and maintenance mechanisms to achieve a effective operation of the Plan.

The PEVOLCA will be applicable in any situation due to volcanic risk that occurs in the territory of the Autonomous Community of the Canary Islands.

To facilitate the understanding of this document in Annex 1 "Glossary of Terms Volcanological" have incorporated the most used terms in this Plan.

1.5.- LEGAL FRAMEWORK.

For the drafting of this Special Plan, the Resolution of February 21, 1996, of the Secretary of State for the Interior, ordering the publication of the Agreement of the Council of Ministers approving the Directive Basic Civil Protection Planning against Volcanic Risk.

In order to locate the legal framework, the normative references and most significant techniques, ordered by date of approval.

1.5.1.- STATE REGULATIONS.

- Law 7/1985, of April 2, regulating the bases of the Local Regime.
- Royal Decree 407/1992, of April 24, which approves the Standard Basic Civil Protection.
- Resolution of February 21, 1996, of the Secretary of State for Interior, ordering the publication of the Agreement of the Council of Ministers by which the Basic Directive of Civil Protection Planning is approved before the Volcanic Risk.

- Royal Decree 997/2002, of September 27, which approves the seismic resistant construction standard: general part and building (NCSR 02).
- Law 38/2003, of November 17, General Subsidies.
- Royal Decree 307/2005, of March 18, which regulates the subsidies in response to certain needs derived from emergency or catastrophic situations, and establishes the grant procedure.
- Order INT/439/2005, of February 14, which modifies the Order of March 18, 1993, which regulates the procedure for the granting aid in response to certain needs arising from emergency situations, catastrophes and public calamities.
- Resolution of January 19, 2006, of the Undersecretariat, by which publicizes the Council of Ministers Agreement creating the Military Emergency Unit (UME).
- Royal Decree 314/2006, of March 17, which approves the Technical building Code.
- Royal Decree 393/2007, of March 23, which approves the Basic Standard of Self-protection of centers, establishments and dependencies dedicated to activities that may give rise to situations of emergency.
- Royal Decree 477/2007, of April 13, which modifies the Royal Decree 307/2005, of March 18, which regulates subsidies in response to certain needs arising from situations of emergency or catastrophic nature, and establishes the procedure for your grant.
- Order INT/277/2008, of January 31, which develops the Real Decree 307/2005, of March 18, which regulates subsidies in response to certain needs arising from situations of

emergency or catastrophic nature, and establishes the procedure for your grant.

- Royal Decree 1468/2008, of September 5, which modifies the Royal Decree 393/2007, of March 23, which approves the standard Basic self-protection of centers, establishments and dependencies engaged in activities that may give rise to situations of emergency.
- Royal Decree 32/2009, of January 16, which approves the National Protocol of Medical-forensic and Scientific Police action in events with multiple victims.
- Royal Decree 1097/2011, of July 22, which approves the Intervention Protocol of the Military Emergency Unit.
- Royal Decree 452/2012, of March 5, which develops the basic organic structure of the Ministry of Public Works and the Royal Decree 1887/2011, of December 30, which establishes the basic organic structure of the ministerial departments.
- Resolution of January 30, 2013, of the Undersecretariat, by which publishes the Agreement of the Council of Ministers of January 25, 2013, by that the State Civil Protection Plan against Volcanic Risk is approved.
- Order DEF/896/2013, of May 16, which modifies the organizational structure and deployment of the Military Emergency Unit, contained in Royal Decree 416/2006, of April 11, by which establishes the organization and deployment of the Army Force, of the Navy and the Air Force, as well as the Military Unit of Emergencies, and Order DEF/1766/2007, of June 13, is modified by the that develops the framing, organization and operation of the Emergency Military Unit.
- Law 17/2015, of July 9, of the National Civil Protection System.

1.5.2.- REGULATIONS OF THE AUTONOMOUS COMMUNITY.

- Canary Islands Security Plan, approved by the Government of the Canary Islands in its session of April 30, 1997 and ratified by the Parliament of the Canary Islands on April 29, 1998.
- Decree 278/1999, of October 7, which approves the Organic Regulation of the Ministry of the Presidency.
- Order of December 21, 1999, which determines the framework of operation of the Emergency and Security Coordination Center (CECOES 1-1-2).
- Order of February 23, 2001, by which the Director is delegated General of Security and Emergencies the competence for the signing of operating agreements to be entered into with Island and Municipal Corporations of the Canary Islands regarding matters related to Civil Protection and Emergency care.
- Law 9/2007, of April 13, Canary Islands Security System and Emergencies.
- Decree 119/2007, of May 15, which creates and regulates the Group of Emergencies and Rescue (GES) of the Autonomous Community of Canary Islands.
- Decree 72/2010, of July 1, which approves the Special Plan of Civil Protection and Emergency Attention due to seismic risk in the Autonomous Community of the Canary Islands (PESICAN).
- Decree 73/2010, of July 1, which approves the Special Plan of Civil Protection and Emergency Attention due to volcanic risk in the Autonomous Community of the Canary Islands (PEVOLCA).
- Law 44/2010, of December 30, on Canary Islands waters.
- Decree 306/2011, of October 21, which creates and regulates the Coordination Committee of study and research activities of the volcanic eruption of El Hierro.

- Decree 30/2013, of February 8, which creates the Registry Autonomic of Self-protection Plans of the centers, establishments and dependencies dedicated to activities that may give rise to situations of emergency.
- Decree 98/2015, of May 22, approving the Plan Territorial Emergency Civil Protection of the Autonomous Community of the Canary Islands (PLATECA).
- Decree 137/2016, of October 24, which approves the Organic regulation of the Ministry of Territorial Policy, Sustainability and Security.

1.6.- EMERGENCY PLANNING DUE TO VOLCANIC RISK.

Competence Framework.

The Basic Directive for Civil Protection Planning against Volcanic Risk establishes:

> *"Of the set of plans elaborated at the previously indicated levels (Plan of the Autonomous Community and local entities) must be a perfectly coordinated system that allows automatic integration organic and functional of those, for the effective protection of people and goods, in cases of volcanic crisis that may make it necessary".*

This implies that both those responsible for civil protection of the various competent administrations in the matter as their agencies and institutions specialized services are coordinated through PEVOLCA.

1.6.1.- STATE PLAN.

The Resolution of January 30, 2013, of the Undersecretariat, which publishes the Agreement of the Council of Ministers of January 25, 2013, which approves the State Civil Protection Plan against Volcanic Risk (BOE No. 36 of February 11, 2013), establishes the organization and procedures of action that allow ensure an effective response from all Public Administrations in the event emergency due to volcanic risk in which the national interest is present, as well as

the support mechanisms for the Civil Protection Plan of the Autonomous Community of Canary Islands or any other that would be affected.

1.6.2.- ISLAND PLANS FOR CIVIL PROTECTION AND ATTENTION OF EMERGENCIES.

In the Canary Islands, for comprehensive planning purposes in the event of an emergency, it is considered It is necessary for each Island Council to prepare and implement Emergency Plans Insular PEIN, to ensure an effective, coordinated and agile response, these being approved by the Commission for Civil Protection and Emergency Attention in Canary Islands.

The Island Emergency Plans are the key instruments in preventive matters and of operational action due to volcanic risk, therefore, they must comply with the following functions:

- Provide the organizational structure and procedures for intervention in emergencies due to volcanic risk, within the insular territory.
- Establish the articulation systems with the organizations of other Local administrations in the island area.
- Zoning the territory according to the risk and the possible consequences of a volcanic eruption as established by PEVOLCA, delimiting areas according to possible requirements for prevention and intervention and deployment of means and resources, as well as locate the infrastructures to be used in operations of emergency.
- Anticipate the organization and distribution of tasks and areas of the different groups of action, in which they can be framed.
- Foster and promote the self-protection of the population in the areas with the greatest volcanic risk and standardized procedures for both evacuation and of confinement.
- Specify information procedures for the population, especially in situations in which, due to the proximity of an eruptive event, the maximum collaboration of the citizen.

- Catalog the means and specific resources for the implementation of the Planned activities.
- Establish the corresponding evacuation routes.

The Insular Plans for Civil Protection and Emergency Attention PEIN, must be integrated into the PEVOLCA planning structure.

Approval and homologation.

The Island Emergency Plans will be approved by the competent bodies of the island corporation and will be approved by the Civil Protection Commission and Emergency Care of the Canary Islands.

Those Councils that already had their approved emergency plan will adapt the same to include the description of the action for volcanic risk within the PEIN.

Likewise, and as established in the Basic Directive in point 4.4, all those islands with a high volcanic risk will prepare the corresponding Action Plan Island due to Volcanic Risk. The guidelines for the elaboration of the Plans of Insular action are included in annex 2 of this Plan.

1.6.3.- MUNICIPAL PLANS FOR CIVIL PROTECTION AND ATTENTION OF EMERGENCIES

The Canarian municipalities will prepare their PEMU Municipal Emergency Plans in function of what is established in the current regulations and in the Territorial Plan of PLATECA Canary Islands Civil Protection Emergencies, at the point described emergency planning.

Once the municipalities with the highest risk have been determined based on the evaluation of risks carried out, due to the consequences that an eruption can have for the population, infrastructures, essential services, etc. and the probability of occurrence of the event, they must prepare their Action Plan at the Municipal level that will be integrated in the PEVOLCA volcanic risk emergency planning structure.

The guidelines for the elaboration of the Insular Action Plans can be found included in annex 2 of this Plan.

The Municipal Emergency Plans, as established by the Basic Directive of Civil Protection Planning against Volcanic Risk, PLATECA and PEVOLCA, must contain the following functions:

- Provide the organizational structure and procedures for the response initial municipality in emergencies due to volcanic risk, within the territory of the municipality, understanding that this will be subordinated to the insular structure, once put yourself in command of the emergency.
- Establish articulation systems with organizations from other Local Administrations included in their environment or territorial scope.
- Zoning the territory according to the volcanic risk and its possible consequences, in accordance with what is established in this Plan and in the Island Plans. To this end, measures may be established aimed at the prevention of said consequences or to the support of the operational deployment in the emergency.
- Provide for the organization of local groups for the prevention and first intervention, in which volunteer staff could be framed, and encourage and promote self-protection.
- Establish information and training measures for the population on the risk volcano, as well as on the self-protection measures to be used in case of emergency. Special emphasis should be placed on the creation of safe zones for refuge of the population and evacuation procedures or confinement towards these.
- Catalog the means and specific resources for the implementation of the Planned activities.
- Implement self-protection measures in urban areas, buildings and infrastructures.
- Enforces by the owners or owners the preventive measures established in the Self-protection Plans.
- Organize the integrated structure in the functions in which the municipality is directly responsible, such as the notice to the population, systems of

alert in rural or scattered areas, the evacuation of the population in case of emergency, meeting points, evacuation routes, transfer to shelters provisional, evacuation of people with special needs, the shelter of evacuees, provisioning, health conditions in shelters, return to their homes, etc.

Approval and homologation.

The Municipal Plans will be approved by the bodies of the local corporation and will be approved by the Civil Protection and Emergency Care Commission of Canary Islands.

Those municipalities that already had an approved Emergency Plan will adapt the itself to include the description of the action due to volcanic risk within the PEMU.

1.6.4.- SELF-PROTECTION PLANS.

Law 17/2015 of the National Civil Protection System, in article 14, frames Self-protection Plans as Civil Protection Plans. The Basic Standard of Self-protection establishes that the development of self-protection plans will be responsibility of the owner of the activity, being prepared by competent technicians qualified to rule on those aspects related to the self-protection against the risks to which the activity is subject.

Royal Decree 393/2007 of March 23 approves the Basic Standard of Self-protection of the centers, establishments and dependencies dedicated to activities that may give rise to emergency situations. The fundamental objective of this Royal Decree is to guarantee citizens the appropriate level of security, efficiency and coordination administrative, in terms of risk prevention and control. This Basic Standard establishes the obligation to prepare, materially implement and maintain operational Self-protection Plans and determines the minimum content that must be incorporated these plans in those activities, centers, establishments, spaces, facilities and dependencies that can potentially generate or be affected by emergency situations. The rules relating to the management and operation of the

Self-protection plans will be established by the competent body of the Autonomous Community of the Canary Islands in matters of civil protection and emergencies.

Finally, it is essential that the Self-protection Plans for these activities are integrated into the PEMU of the municipality where it is located and other plans of higher level that affect them.

1.6.5.- MINIMUM CONTENT OF SELF-PROTECTION PLANS.

In those areas that are considered to be of high or very high volcanic risk by the PEVOLCA, the self-protection plans will be obliged to consider in a manner specifies the risk of volcanic origin.

EPISODE 2. STRUCTURE AND ORGANIZATION

2.1.- ORGANIZATION CHART.

In the organizational structure of PEVOLCA, there are different bodies that bring together all the participants contemplated in the Plan depending on the nature of the actions that they carry out, that is, if they are identified with tasks of management, study and counselling, coordination, or whether they involve direct intervention.

- Management Bodies: are those with executive and organizational capacity in the development of the actions of the Plan.
- Support Bodies: their main function is the study and analysis of the risk situations, their circumstances and product response capacity of the actions, advising the Director to whom they are linked in their decision of decisions.
- Operational Coordination Bodies: these are the centers in charge of managing of the emergency operation, as well as the information generated. Is activity requires continuous communication between the Management of the Emergency and Action Groups.
- Organs of Action: their function is to intervene directly in the attention of the emergency both from the operational point of view, of protection, as well as logistic. It is made up of the Action Groups that are constituted, especially those of Intervention, Security, Health, Essential Services, Volcanic Surveillance and Logistics.

Annex 9 includes some summary sheets that describe the responsibilities of all key personnel integrated into PEVOLCA.

The operating organization chart of PEVOLCA is as follows:

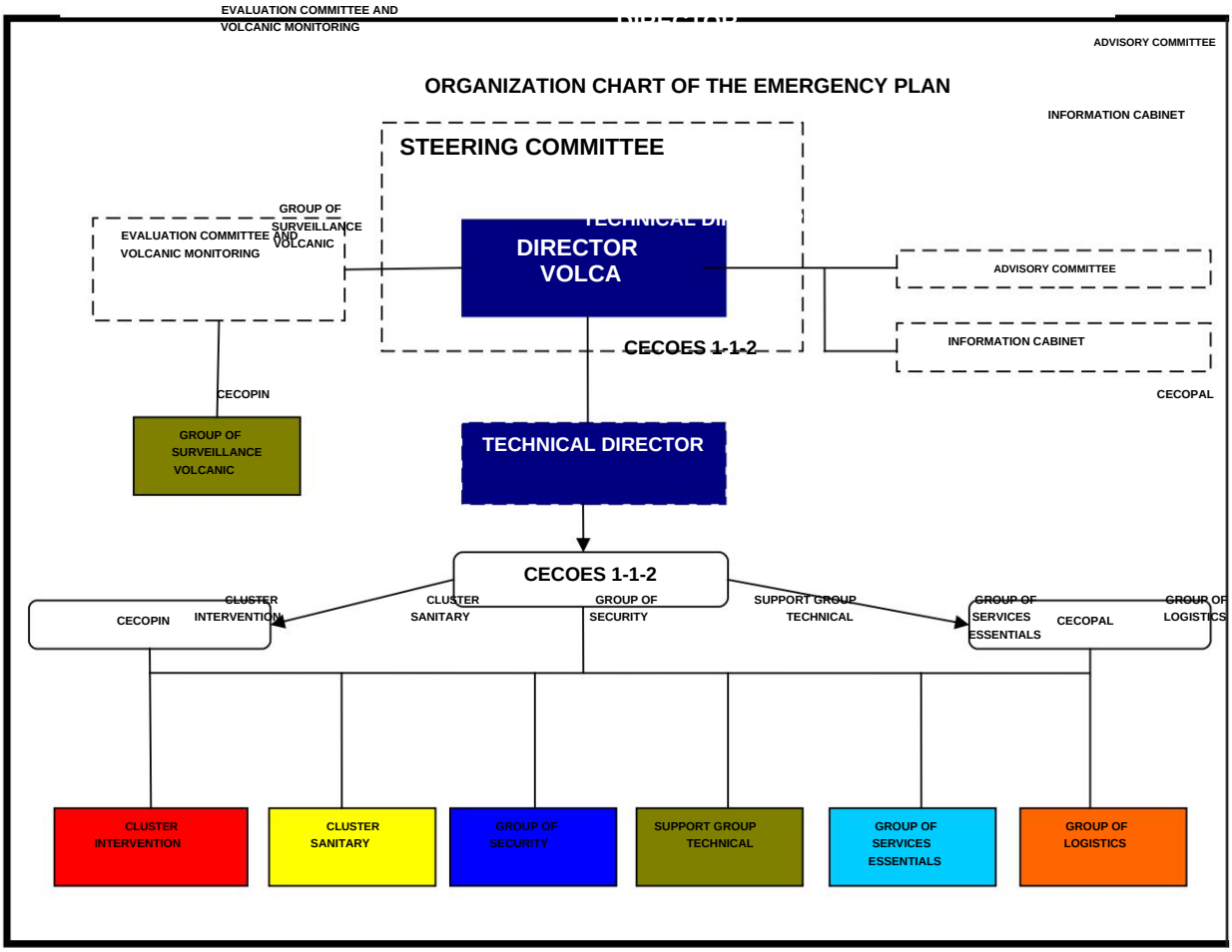
ORGANIZATION CHART OF THE EMERGENCY PLAN

Annex 9 includes some summary sheets that describe the responsibilities of all key personnel integrated into PEVOLCA.

The operating organization chart of PEVOLCA is as follows:

STEERING COMMITTEE

ORGANIZATION CHART OF THE EMERGENCY PLAN



2.2.- MANAGEMENT BODIES.

The Management of the Plan has a structure determined by the very complexity of the dangers associated with volcanic eruptions and the vulnerability that determines the populations that may be affected. ***2.2.-***

MANAGEMENT BODIES.

2.2.1.- STEERING COMMITTEE.

The Management of the Plan has a structure determined by the very complexity of the dangers associated with volcanic eruptions and the vulnerability that determines the that may be affected.

Volcanic phenomena present a high uncertainty about the capacity of to be able to predict its magnitude, effects and consequences, which implies that from populations

2.2.1.- STEERING COMMITTEE.

Volcanic phenomena present a high uncertainty about the capacity of to be able to predict its magnitude, effects and consequences, which implies that from

early stages of the development of events, even pre-eruptive, should form
the Steering Committee, which will be convened by the Director of the Plan. this committee
It will be made up of representatives of the different administrations.
(General State Administration, Autonomous Community of the Canary Islands, Cabildo
Insular and the mayors of the affected municipalities).

The Committee will be chaired by the Director of PEVOLCA to analyze and achieve the best
development of the actions contemplated within the planned action plans
for each of the municipal, insular, regional and state administrations.

The functions of the Management Committee are:

- Serve as support to the Director of the Plan in making decisions where several administrations concur.

Facilitate coordination between the various entities or agencies of the different administrations.

- Expedite the availability of resources that exceed those provided for the Level in which the plan is active.
- Carry out joint monitoring of the different phases of evolution of the emergency.

2.2.2.- DIRECTOR OF THE PLAN.

The Director of PEVOLCA is the natural person responsible for the management and
Coordination of all actions carried out under this Plan.
Depending on the territorial area affected and the emergency situation,
Municipal or Island Emergency Plans will be activated due to volcanic risk
providing the most basic and immediate support and protection services to the
citizen and acting in a coordinated manner by this Special Plan.
The Management of the Plan at the different levels of Emergency will correspond to:

- Level 1: Head of the competent body in matters of Civil Protection and Emergency Care of the Island Council, or person delegated.

- Level 2: Head of the competent Body in matters of Civil Protection and Emergency Care of the Autonomous Community of the Canary Islands, or person to whom you delegate
- Level 3: The Management of the Plan will rest with a Management Committee made up of a representative of the Ministry of the Interior (Government Delegate), and a representative of the Autonomous Community of the Canary Islands (responsible for the Competent body for Civil Protection and Emergency Assistance of the Autonomous Community).

The functions of the Director of the Plan will be the following:

- Declare the activation of PEVOLCA in an Emergency Situation at Level appropriate, communicating it to the authorities, organizations and services that corresponds, including CECOES 1-1-2.
- Decide at all times the most convenient actions to coordinate and direct emergencies due to volcanic risk, and for the application of measures of protection to the population, to the collective patrimony, to the goods and to the personnel who intervenes in the emergency.
- Direct and coordinate the emergency operation through the Center Coordinator, who will jointly monitor the different phases of evolution of the emergency and that will serve as support in decision-making.
- Determine and coordinate the information to the population, both the information intended to adopt protection measures, such as general information on the situation.
- Decree the evacuation of people unrelated to the tasks of the Group of Intervention whose safety may be affected, determining previously their destination and mode of transfer to a safe area.
- Determine the measures to be adopted in order to preserve cultural assets, economic, infrastructure or essential public services.
- Alert the Government Delegation in the Canary Islands to the possibility of declaring National level emergency.
- Call and chair the Steering Committee.

- Summon the Scientific Committee for Evaluation and Monitoring (CCES) of volcanic phenomena.
- Establish and convene the Advisory Committee and the Information Office to facilitate relations with the social media and establish the communication policy during the emergency, as well as deciding what information is transferred to the population.
- Set up the emergency management organization.
- Appoint those responsible for the Action Groups, as well as the Director Technical.
- Assume all functions assigned by the regulatory provisions that are established.
- Request means and resources not assigned to this Plan in accordance with the corresponding mobilization procedures, in accordance with the information provided by the Technical Director.
- Establish CECOES 1-1-2 as the CECOP Operational Coordination Center, as well as How to establish communication systems.
- Deactivate PEVOLCA declaring the end of the emergency when there is no condition of risk for people, communicating it to the authorities, corresponding bodies and services, including CECOES 1-1-2.
- Determine the demobilization of means and resources displaced before a emergency, once its function is fulfilled.

2.2.3.- TECHNICAL DIRECTOR.

It is the competent technician with experience in emergencies, designated by the Director of the Plan, which is responsible for adopting the necessary measures for the protection of people and/or cultural, economic assets, infrastructures or public services that require the deployment of a specific device of civil protection.

The functions of the Technical Director will be the following:

- General coordination of the emergency.
- Direction of the Advanced Command Post (PMA).
- According to the information provided by the Heads of each Group of Action and other sources of information on the current situation and evolution foreseeable emergency, propose to the Director of the Plan the need to adopt protection measures for people and, where appropriate, evacuate them to safe places.
- Propose to the Director of the Plan, the need to adopt protective measures of cultural, economic assets, infrastructures or public services essential.
- Propose to the Director of the Plan the mobilization of external means, as well as their integration in the defined Action Groups.
- Carry out, in collaboration with the Scientific Committee and the Support Group Technical, a continuous assessment of the situation in which the emergency (forecast potential, affectation to the population, damages environmental, evacuated population, health care measures established, etc.), according to the information provided by the different coordination centers.
- Require, through the CECOES 1-1-2, the electricity supply companies and other essential services, service interruptions or other actions necessary.
- Keep the Director of the Plan informed of the evolution of the tasks that has entrusted

Advise the Director of the Plan on the advisability of decreeing the end of the emergency situation with the corresponding deactivation of the Plan.

In the case of simultaneous emergencies (not declared of national interest) in several islands, the assignment and coordination of air and land resources deployed in Canary Islands of other island operations, of the Autonomous Community of the Canary Islands and of the State Administration will be the responsibility of the General Directorate of Security and Emergencies.

2.3.- SUPPORT BODIES.

2.3.1.- ADVISORY COMMITTEE.

The Advisory Committee will be made up of a group of competent people, responsible for providing solutions and advising the Director of the Plan.

The designation of its members and their call corresponds to the Management of the Plan.

This Committee will basically consist of:

- Municipality:
  - o Mayor/Mayoress.
- Island Council:
  - o Environment Area.
  - or Civil Protection.
  - o Consortium of Fire Fighting/Firefighters.
  - o Area of Island Plans.
  - o Highway Area.
  - o Agriculture Area.
- Government of the Canary Islands:
  - o General Directorate of Security and Emergencies.
  - o Canarian Health Service.
  - o Representative of the Department responsible for Planning Of the territory.
  - o Representative of the Ministry competent in matters of Infrastructures and Transport.
  - o Representative of the Department responsible for the Environment Atmosphere.
- General State Administration:

Of the territory.

o Representative of the Ministry competent in matters of Infrastructures and Transport.

o Representative of the Department responsible for the Environment Atmosphere.

- General State Administration:
  - o Government Delegate/Subdelegate.
  - o Civil Protection Technicians from the Government Delegation.
  - or National Police Corps.
  - or Civil Guard.
  - o Higher Council for Scientific Research (CSIC).
  - o National Geographic Institute (IGN).
  - o State Meteorological Agency (AEMET).

These entities of the General State Administration will be activated following the procedures established in the resolution cited in point 3 of section 1.5.1.

Legal framework.

The functions of the Advisory Committee are the following:

- Ensure the coordination of all agencies and administrations involved in the emergency.
- Provide technical support for the decisions of the Director of the Plan.
- Find technical solutions to the demands of the incident.
- Collect information from the Coordination Center.

Within this committee there may be an economic council, in charge of accounting expenses incurred due to the emergency, as well as advising on the administrative contracting procedures. It will also be in charge of coordinating the corresponding claims derived from the emergency. The designation of this advice will be made by the direction of the Plan.

2.3.2.- SCIENTIFIC COMMITTEE FOR EVALUATION AND MONITORING OF VOLCANIC PHENOMENA (CCES)

The CCES is created for the study and analysis of volcanic risk situations that produced in the Autonomous Community of the Canary Islands. It is established as an organ of consultation and scientific advice before the governing bodies of PEVOLCA. HE will be governed by the operating rules detailed in Annex 18 of this Plan, which must be assumed in writing by all its members.

It has the following functions:

- Establish the typology of possible precursor phenomena of eruptive crises in the Canary Archipelago.
- Guarantee the “Monitoring and Information System on Phenomena Volcanic”, evaluating the data that, in relation to said phenomena, obtained from the networks and measurement stations and those that may result from studies or analyzes carried out in relation to volcanic activity.
- Formulate forecasts on the possible triggering of eruptive crises and its implications in the field of civil protection.
- Establish the surveillance and follow-up methodology to be applied in case of volcanic eruption, assess the data and information that in this case is obtained and formulate hypotheses about their evolution.

The CCES will be coordinated by a representative of the General Directorate of Security and Emergencies, and composed of:

1. At least one representative of the National Geographic Institute (IGN).
2. A representative of the Higher Council for Scientific Research (CSIC).
3. A representative of the State Meteorological Agency (AEMET).
4. A representative from each of the Public Universities of the Canary Islands.
5. A representative of the Volcanological Institute of the Canary Islands (INVOLCAN).
6. A representative of the Geological and Mining Institute of Spain (IGME).
7. A representative of the Spanish Institute of Oceanography (IEO).

Likewise, the Director of the Plan may invite as many people or institutions deems appropriate, to advise it in the assessment of volcanic risk in Canary Islands.

2.3.3.- COMMITTEE FOR THE COORDINATION OF STUDY ACTIVITIES AND INVESTIGATION OF VOLCANIC ERUPTIONS IN THE CANARY ISLANDS.

The Coordination Committee will be constituted for the performance of the functions following:

- Evaluate and debate the formulas and mechanisms for planning and coordinating study and research activities of each seismovolcanic crisis with a double objective: to promote that its development and results are useful to the competent authorities in matters of civil protection and ensure that the scientific activity does not harm or hinder the actions agreed by those responsible for the emergency response device.
- Submit proposals and recommendations to the DGSE of the Government of the Canary Islands and to those responsible for the different institutions and organizations represented in the Committee.
- Respond to queries and requests for reports that the DGSE of the Government of the Canary Islands.

Its operation and composition will be governed by Decree 306/2011, of 21 October, which creates and regulates the Coordination Committee for the activities of study and investigation of the volcanic eruption of El Hierro.

Both the Coordination Committee and the Scientific Committee will have the obligation to exchange all the information available to them regarding the processes earthquakes that occur within the scope of the Autonomous Community of Canary Islands. Likewise, the Scientific Committee must provide the Committee of Coordination of an important part of the material collected during the process seismovolcanic: rock samples, water samples, gases, etc.

2.3.4.- INFORMATION CABINET.

It is the body that reports directly to the Director of the Plan in charge of collecting, prepare, disseminate and distribute the information generated by the emergency.

The functions of the Information Office are:

- Disseminate the guidelines and recommendations established by the Department of Plan.
- Centralize, coordinate and prepare general information on the emergency that comes from different scientific and institutional sources and provide it to the social media.
- Inform as many people or organizations as request about the emergency.
- Obtain, centralize and facilitate all the information related to possible affected, facilitating family contacts and locating people.

Establish and organize the necessary contacts with the media who officially will only have a direct relationship with this Cabinet.

- Prepare and disseminate notices to the population so that they can be adopted, if necessary. necessary protective measures.

The Information Office will be made up of the people determined by the Director of the Plan.

Only the Information Office is authorized to transmit, both to the population and the media, data relating to the situation of emergency. In this way, unity of information is achieved and the security that it is reliable and verified.

The Information Office will be located according to the designation of the Director of the PEVOLCA, preferably at the headquarters of the Coordinating Center and will have support technician for the exercise of its functions. In case of emergencies, the CECOES 1-1-2, or CECOPIN in case there is no CECOES 1-1-2 on the affected island, it will be configured to locate the Information Cabinet, meeting your needs rooms, room for press conferences, etc.

The messages to the population will be carried out following the communication schemes established in Annex 3 "Notices and communications".

Each administration will establish the necessary Information Centers in order to Ensure effective communication with the community. The organization of such Centers will be defined in the Emergency Plan for Volcanic Risk of each Local Administration (municipal/insular).

2.4.- COORDINATION BODIES.

2.4.1.- VOLCANIC EMERGENCY COORDINATION CENTERS.

The operational coordination centers of the Volcanic Risk Emergency Plan They will be all those that must necessarily be put into operation when PEVOLCA is activated, so that management functions and tasks can be exercised, coordination and management of emergency operations attending to the distribution of functions delegated to each administration as established in the Plan.

In such centers, the systems and devices for liaison between them must be established. to ensure communications during an emergency.

The essential operational coordination centers, in principle, will be the following:

- Emergency and Security Coordination Center. CECOES 1-1-2.
- Island Operational Coordination Center. CECOPIN
- Municipal Coordination Center. CECOPAL
- Volcanic Surveillance Center.
- Forward Command Post. WFP

2.4.2.- EMERGENCY AND SECURITY COORDINATION CENTER 1-1-2 (CECOES 1-1-2).

The Emergency and Security Coordination Center CECOES 1-1-2 is the body through of which the Public Administration of the Autonomous Community of the Canary Islands channels and coordinates situations that affect the normal development of daily life in

security and emergencies. Its main purpose is the coordination and management of emergency services, both land and air, in the Archipelago Canary, in such a way that any alert, be it health, security, rescue, extinction or rescue, receive an immediate and comprehensive response. coordinate activities and services of public and private organizations in which their activity is directly or indirectly related to prevention, planning, care, relief, security, technical or professional assistance of people, goods or rights in security and emergency operations regardless of the nature of the event that originate.

In PEVOLCA, the CECOES 1-1-2 is entrusted with the following functions:

- Receive requests for help.
- Immediately notify the Municipal Coordination Center (CECOPAL) and the Insular Operational Coordination Center (CECOPIN) for emergencies that occur produce and support the mobilizations that are established.
- Serve as support to CECOPIN in the activation of PEVOLCA in Situation of Level 0 - 1 Insular Emergencies.

Know the state of resources of the different sectors available in time for the resolution of an emergency.

- Know the state of the resources of the Canary Administrations available for emergency care.
- Preventatively know the compromised situations.
- Activate the necessary and most appropriate resources at the request of the Director Technical.
- Respond to the demands for external resources by the parties involved.
- Support the Information Office in the tasks of informing the population.
- Act as a coordinating body for civil protection.
- Serve as support and support to the corresponding bodies of the Cabildos Islanders and Town Halls and other members of the Plan.

- Prepare the Volcanic Risk Index (traffic light) following the requirements established by the Plan Management.
- Serve as coordinating liaison with the General State Administration and notify the CECOP of the Government Delegation in the Canary Islands/Subdelegation corresponding, and at the request of the Director of the Plan, both the declaration of PEVOLCA activation at the corresponding level, as well as the consequences that on the population, infrastructures and basic services may have the emergencies produced by volcanic risk.
- Execute the orders issued by the corresponding governing bodies.
- Collect information from the Volcanic Surveillance Center.
- Obtain information from the State Meteorological Agency.
- Coordinate the logistics of travel, accommodation and maintenance of the different teams from the Action Groups.

Decree 278/1999, in the ninth Additional Provision establishes as Center Emergency and Security Coordinator of the Government of the Canary Islands the Center 1-1-2 of the Urgent Care and Emergencies Service, created by Decree 62/1997, of April 30, which will act as the Operational Coordination Center (CECOP) and Integrated Operational Coordination Center (CECOPI) provided for in the Plan Territorial Emergency Department of the Autonomous Community (PLATECA).

The CECOES 1-1-2, as an Operational Coordination Center (CECOP) of a autonomous, will carry out the management and coordination of all operations and will establish the necessary coordination by having a link system with the CECOP of the Administration in which the Plan is integrated. Among the different CECOPINES in In the event of simultaneous emergencies on several islands, it will manage support actions carried out between the affected islands.

All CECOP will be able to function in its case as an Operational Coordination Center Integrated (CECOPI).

Whenever the Management Committee is constituted, and in accordance with the provisions of emergency situation of national interest, the Government Delegate, as included in point 4.4 of the State Plan for Civil Protection against Volcanic Risk, may request from the competent body of the Autonomous Community the constitution of the corresponding Integrated Operational Coordination Center (CECOPI). if that was him case, it will be the State that determines where the CECOPI will meet, and always in the case that it had not been established.

The CECOES 1-1-2 may act as an Operational Coordination Center Integrated (CECOPI), facilitating the integration of those responsible for the different Administrations that make up this Center, both for the management and coordination of the emergency and for the transfer of responsibilities.

Consequently, the physical place where this body will meet and in the event that the emergency is declared of national interest, it will be determined by the Directorate of the Plan, in agreement with those responsible for the Plan of the Autonomous Community and in depending on the operational capacity available in each of the CECOPs, either of the General State Administration or the Autonomous Administration.

2.4.3.- ISLAND COORDINATION CENTER (CECOPIN).

The Insular Operational Coordination Center is the operational and coordination body dependent on the Island Council, from where the follow-up of the operations aimed at dealing with emergencies in their territorial scope and competence.

It depends directly on the affected Island Council, which may vary, in its opinion, its physical location if circumstances warrant.

The CECOPIN will have all the necessary infrastructures for the reception of alarms and all information on which the Director of the Plan relies for decision making.

It will carry out its operational activity in tune with the CECOES 1-1-2.

This center establishes the coordination of the media involved in the emergency and of the participating organizations and administrations at the island level, such such as the Cabildo, Town Halls, Consortiums, etc.

In the event of several emergencies occurring at the same time on different islands, the different CECOPIN will always act in coordination with CECOES 1-1-2, to which You must keep informed at all times.

The following are the functions of the CECOPIN:

- Immediately notify the Emergency and Security Coordination Center (CECOES 1-1-2) of the alerts for volcanic risk and the mobilization of media made.
- Know the state of means and resources of the island operation, of other means assigned to the Island Plan and volcanic risk activities that have place on the island.
- Activate the means contemplated in the Risk Emergency Plan volcanic, in order to carry out tasks of surveillance, confirmation and information at the request of the Technical Director.
- Request the CECOES 1-1-2 the meteorological information and the necessary means, as well as keep you informed of the evolution of the incident until its ending.

The following are the functions of the CECOPIN coordinator:

- CECOPIN address.
- Control the recording of relevant information.
- Coordination outside the emergency, following the premises set by the Technical Director. In particular, it will support the Advanced Command Post (PMA) in all the information and requests that are demanded from there, offloading it from part of the workload that is generated.
- Collect meteorological information and transmit it periodically to WFP.
- Manage and prepare the relays of the different media, as well as the areas of rest, shelter and provisioning-refuelling.
- Periodically write the necessary information for the Cabinet of Information and submit it to the Insular Emergency Committee.

- Being the intermediary between the different entities and the Technical Director.
- Constantly check that the action protocol is complied with.

2.4.4.- MUNICIPAL COORDINATION CENTER (CECOPAL).

CECOPAL is the emergency coordinating center at the municipal level from where the actions determined by the Director of the PEMU are supported. In case of volcanic eruption the PEMU will be subordinated to the insular plan and to PEVOLCA itself and therefore to the direction of the Plan.

All municipalities affected by volcanic eruption must establish their own CECOPAL. The PEMU Advisory Committee will meet there, under the direction of Mayor / Mayoress, with the representation of the highest heads of Protection Civil, Local Police and other Bodies and Services of the City Council.

This center must maintain permanent communication with the CECOES 1-1-2 and the CECOPIN.

Its main functions are:

- Establish the coordination of the municipal media involved in the emergency and of the organizations and administrations participating at the municipal.
- Coordinate the actions of the Action Groups that they maintain in the different levels of the Plan a municipal management, especially the Group of Logistics in the tasks of evacuation, transfer and shelter of the population.
- Inform the population about self-protection and self-defense measures, especially when these are carried out well in advance and the time to prepare the area is enough.
- Communicate permanently with CECOES 1-1-2 and CECOPIN about the functions developed.

In accordance with what was previously indicated, the personnel of the municipalities affected by the emergency will support the Action Groups provided for in PEVOLCA, specifically:

- The Local Police will be integrated into the Security Group.

- The personnel of the Town Halls that are assigned the functions of supply, evacuation and shelter or that has been designated by the respective Town Halls for this purpose, will be integrated into the Logistics Group.
- The municipal intervention units, both those made up of personal of the Town Halls, such as those created with volunteers may join the Intervention Group as long as they comply with 3 Mandatory requirements: adequate training, personal protective equipment and medical aptitude.

2.4.5.- BODIES FOR THE COORDINATION AND TRANSFER OF MANAGEMENT RESPONSIBILITIES IN EMERGENCIES.

When for reasons derived from the emergency, and so requested by the Management body of PEVOLCA and, in any case, when the situation is declared of national interest, the Emergency Management and Coordination functions will be exercised through the Operational Coordination Center that corresponds, being constituted to these effects as Integrated Operational Coordination Center (CECOPI).

Once the situation has been declared as of national interest, it will be the Minister of the Interior the one exercising superior management of emergency actions, being the Council of Management of the State Plan, the superior body of support to the Minister. and the CECOPI one of the constituent bodies of this Plan.

When the CECOPI is constituted, the management of the PEVOLCA will be exercised within a Steering Committee made up of a representative of the Community body Autonomous Community established in said Plan and a representative of the Minister of the Interior.

It will correspond to the representative designated by the Autonomous Community in the Committee Management, the exercise of management functions that, in order to deal with the emergency situation are assigned in the Autonomous Community Plan.

The Management Committee will have the assistance of of an Advisory Committee and an Information Office.

The Advisory Committee will be made up of representatives of the bodies of different administrations, as well as technicians and experts, among others of the following organizations:

- Government Delegation or Sub-delegation.
- Affected municipalities.
- Action Groups.
- Affected facilities, if any.

2.4.6.- INFORMATION ON EVENTS AND RISK FORECASTS.

Even in those circumstances that do not require the constitution of the bodies to which refers to the previous point, the procedures established in the plans must ensure maximum fluidity of information between them, both on forecasts of risk as well as the occurrence of events that may affect the activation or the development of Plans and emergency operations.

In particular, the organization of the State Plan will provide the Management Bodies of the PEVOLCA the data and information that, for the corresponding territorial scope, is derived from the meteorological information and risk estimation system volcanic.

2.4.7.- VOLCANIC SURVEILLANCE CENTER.

The permanent Volcanic Surveillance Center dependent on the Scientific Committee of Evaluation and Monitoring of Volcanic Phenomena (CCES), will be the operational place from where the coordination of the Volcanic Surveillance Group is carried out and from the At the time the volcanic crisis is declared, a scientific follow-up begins will require:

a) Implement monitoring of the seismic-volcanic phenomenon or reinforce the existing instrumentation.

b) Operate the equipment and analyze the data obtained.

c) Make forecasts about the evolution of the crisis, danger scenarios and suggest the actions to take.

The Surveillance Center will have the following elements:

a) Human and material resources necessary to guarantee its operability permanent.

b) Connection with the volcanic surveillance networks that operate in the Canary Islands, as well as with other scientific institutions.

c) Communication systems with adequate technical characteristics for guarantee communication with CECOES 1-1-2.

d) Tools to process the information received from the Group of Volcanic surveillance, as well as the different institutions that could be investigating the evolution of the volcanic crisis. This information must be transmitted to CECOES 1-1-2, CECOPIN and CECOPAL and to other centers of coordination, such as the National Center for Monitoring and Coordination of Civil Protection Emergencies, of the General Directorate of Civil Protection and Emergencies, for effective management of volcanic emergencies. Is information will also be transferred to the CECOP of the Government Delegation in the Canary Islands/Sub-delegation of the Government in Santa Cruz de Tenerife.

The maximum responsibility of the Volcanic Surveillance Center corresponds currently to the National Geographic Institute (IGN).

2.4.8.- FORWARD COMMAND POST (PMA).

It is the place from where the direct actions to be carried out by the participants from the different Action Groups.

It is located near the place of emergency, where it is considered most appropriate, in direct and permanent communication with the different Coordination Centers. In Consequently, also with the Director of the Plan and with the Technical Director who may not be present if different emergencies coexist simultaneously.

It will consist of at least the following components, or at least have direct communication with them:

- o Technical Director.
- o Responsible for each affected municipality.
- o Representative of the Security Group.

o Representative of the Logistics Group.

o Representative of the Sanitary Group.

o Representative of the General Directorate of Security and Emergencies.

o Representative of the Scientific Committee for the Evaluation and Monitoring of Volcanic phenomena.

o Representative of the General Administration of the State and the Forces Armed if they were intervening.

The functions of the Advanced Command Post are:

- Analysis and follow-up of the claim.
- Management and coordination of the actions of the Action Groups in the emergency zones.
- Continuous contact between the Technical Department, the Plan Department and with the different operational coordination bodies.
- Control and management of the means acting in the emergency.
- Keep the Coordination Center informed about the evolution of the incident.
- All the functions that correspond to the Technical Director.

2.5.- BODIES OF OPERATIONAL ACTION.

For the execution of the actions foreseen in this Plan, the different Action Groups depending on their objective in the emergency: Group of Intervention, Volcanic Surveillance Group, Security Group, Sanitary Group, Technical Support Group, Logistics Group, and Service Rehabilitation Group essentials.

It will be essential that the different action groups are aware of the Action Plan by volcanic risk, so it will be mandatory for a person to remain in the EMP. representative of each unit or body, especially when different media are used Communication.

The following Action Groups are planned:

1. Intervention Group.

2. Volcanic Surveillance Group.

3. Security Group.

4. Health Group.

5. Technical Support Group.

6. Logistics Group.

7. Group for the Rehabilitation of Essential Services.

2.5.1.- INTERVENTION GROUP.

It is the set of material and human resources, made up of professionals and volunteers with adequate training and equipment, who act directly in the emergency produced.

The Head of the Intervention Group will be designated by the Director of the Plan.

The different units involved will act under the orders of their respective natural responsible.

The Intervention Group will be composed of:

- Head of Operations.
- Fire specialists, in case there is a fire in the environment due to the volcanic eruption, which affects the forest mass.
- Environmental Agents.
- Coordinator of aerial resources in the event that there are aerial resources intervening.
- Units of the Insular Extinction operation.
- Emergency and Rescue Group of the Government of the Canary Islands (GES).
- Air Resources, regardless of ownership.
- Extinguishing units of the Fire Consortiums.
- Extinguishing units of other Island Councils.

- Firefighting units of the National Parks.
- Municipal and island firefighters.
- Rescue personnel
- Volunteers recognized as such by the General Directorate of Security and Emergencies of the Government of the Canary Islands.
- Highway maintenance services.
- Machinery and public works companies.

The entities of the General State Administration will be activated following the procedures established in the resolution cited in point 3 section 1.5.1.
Legal framework, and among them it is worth highlighting:

- Military Emergency Unit (UME)
- Maritime Rescue Personnel.
- Maritime Captaincy and Port Authority.

Functions:

1. Extinguishing fires that could occur as a result of the eruption volcanic activity, including forest fires caused by volcanic flows.
2. Possible actions for conducting castings.
3. Rescue and rescue of people at risk.
4. Collaboration in the tasks of evacuating the population from risk areas.
5. Establish prevention measures to reduce the vulnerability of buildings or other associated technological risks (gas, electricity, water installations, etc.) that could be affected by the volcanic eruption.
6. Assess and report on the status, in real time, of the emergency situation to the Technical Director, as well as the damages caused or those that could occur, and the viability of the operations to be carried out.
7. Urgent repair of the affected communication routes.
8. Prevent the collapse of structures.

2.5.2.- VOLCANIC MONITORING GROUP.

Dependent on the Scientific Committee for the Evaluation and Monitoring of Phenomena Volcanics, in communication with the Technical Director of the Plan, is responsible for the monitoring and permanent assessment of the volcanic hazard through systems of volcanic watch.

It will be made up of technical personnel designated by the National Geographic Institute (IGN) and personnel from the competent body for public health and environmental quality of the Government of the Canary Islands, to evaluate the consequences on people's health can generate volcanic hazards. You will be able to integrate all the information in real time and thus give the diagnoses and predictions that are necessary with a view to preventing and notifying the Plan Management with sufficient time, so that it is possible to deploy the evacuation operations ensuring in the people's lives as much as possible.

Functions:

1. Monitoring of existing measurement stations in the Surveillance Network volcanic.

2. Field maintenance of the instrumentation, with the support of the Logistics Group, in order to facilitate access and security of records, as long as safety conditions exist for the life of the researchers.

3. Installation of sensors and necessary instrumentation in the areas considered timely in order to achieve greater precision in the results that allows a better prediction of the behavior of the volcanic phenomenon.

4. Integration of all information from both own networks and those of others organizations and institutions that have instrumentation. Commissions can be created with the purpose of being able to integrate them into the Volcanic Surveillance System of the Canary Islands and thus being able to obtain the information available for the prediction models.

5. Keep a record of atmospheric, water and soil quality values to prevent possible effects on public health and determine protective measures.

6. Prepare the necessary technical reports for the Management of the Plan through the CCES, there being no other means of communication. This is intended to prevent said

information can be misinterpreted before reaching the population, producing a deterioration of emergency control.

All public or private institutions, as well as independent researchers that carry out measurements must carry out the necessary coordination so that the The Volcanic Surveillance Center has all the records of said measurements in any of the activation levels of the Plan. Likewise, they must establish and regulate all exchange mechanisms.

2.5.3.- SECURITY GROUP.

It is the set of material and human means whose action is to guarantee the citizen security, control of the areas affected by the volcanic emergency and its accesses and collaborate in the evacuation, confinement or removal of the population If necessary. The management of the Plan will appoint a Chief for the Group of Security.

Functions:

1. Support to the General Directorate in the evacuation.

2. Assess and report on the level of security of the affected population, as well as of the operational groups to the Director of PEVOLCA.

3. Guarantee citizen security and guard the assets of the area, especially in case of evacuation of people.

4. Control traffic for evacuation, in cases and places where, as consequence of the emergency, a considerable increase in the circulation.

5. Beacon the alert area by controlling access and closing access to the area of intervention of unauthorized personnel.

6. Facilitate the urgent evacuation of people in danger.

7. Maintain road networks in adequate conditions for use during the emergency, signaling sections of deteriorated roads, establishing alternative routes for disabled itineraries and reordering the traffic of the affected pathways until normality is restored.

8. Proceed according to its competences, to the identification of corpses and victims.

9. Collaborate with the municipal authorities in the evacuation of the population, or in any action that involves large movement of people.

10. Support the Intervention Group for search, rescue and rescue of people outside the intervention area.

11. Support the dissemination of notices to the population.

12. Recognize the area of operations, in support of the other groups, for evaluation of damages and monitoring of actions.

13. Support for citizen security in affiliation centers and shelters.

14. Any other function within its area of competence.

It is made up of the people and means corresponding to the Forces and Corps of Security, as well as other competent police or security groups in each case:

- ÿ General Corps of the Canarian Police.
- ÿ Local Police.
- ÿ Forest and Environment Agents.

The different police forces and other security and emergency services They must provide mutual assistance and collaboration.

The different local police forces of the Canary Islands must provide the information that is necessary for the provision of services, as well as making it available disposition of the State Security Forces and Bodies in the terms provided in the legislation.

A representative of each police officer involved in the PMA will be kept in order to to coordinate with total security each one of the actions that are developed, with special incidence in the forecast regarding the closure of roads and the evacuations that can be carried out.

The entities of the General State Administration will be activated following the procedures established in the resolution cited in point 3 of section 1.5.1.

Legal framework, and among them it is worth highlighting:

ÿ Civil Guard.

ÿ National Police Corps.

2.5.4.- SANITARY GROUP.

It is the set of material and human means whose main action is to provide health care to those affected by the emergency, especially those first aid, classification, control and sanitary transport and all those measures protection of the population and prevention of public health.

The person in charge of the Sanitary Group will be a sanitary technician designated by the Director of the Plan.

This Group will be made up of:

ÿ Canarian Health Service.

ÿ Canary Emergency Service (SUC).

ÿ Assistance services (social or socio-sanitary) and/or hospital dependent on the Autonomous Community, Island Councils, Municipalities or any other public or private administration.

ÿ Medical transport companies.

ÿ Red Cross.

Functions:

1. Assess and report on the health status of the affected area to the Director Technical, as well as the health risks that could occur and the feasibility of the operations to be carried out.

2. Provide emergency health care to the injured that may occur in the intervention area.

3. Classification and triage of those possibly affected.

4. Establish the relief area in a suitable and safe area, close to the emergency, in agreement with the Technical Director.

5. Proceed with the classification, stabilization and evacuation of the wounded.

6. Organize medical and health devices, and coordinate with the Centers Assistance in the transfer and reception of the wounded who are being evacuated from the damaged area.

7. Carry out the health care of the evacuated population in the shelters of emergency.

8. Collect all possible information on the location and identity of the assisted people.

9. Collaborate in the information to the affected population, about rules of conduct to follow (confinement, etc.)

The scope of action of the Sanitary Group is the immediate area of the affected area in regarding the reception and care of the wounded and the entire affected zone and areas of influence in restoring and maintaining public health.

2.5.5.- LOGISTICS GROUP.

It is the group in charge of actions aimed at evacuation, mobilization and demobilization, supply, provisioning, shelter, replacement of means materials of the intervention groups and support in the transfer of the population that is in a risk area and to adequate accommodation in safe places.

The Head of the Logistics Group will be appointed by the Director of the Plan.

The members of the Logistics Group will be, among others:

- Municipal and insular Civil Protection.
- Municipal grouping.
- Emergency and Rescue Group of the Government of the Canary Islands GES.
- Municipal social services and other administrations.
- Civil Protection volunteer groups.

- Red Cross and other NGOs recognized by the Plan Directorate.
- Any other Organization, Company or Institution with social resources applicable.

Functions:

1. Establishment and development of the logistics plan.
2. Coordination and direction of the evacuation of the population (shelter, provisioning, etc. of evacuees) with the support of the Security Group.
3. Support to the Intervention Group in the action plan, especially with regard to the support from the Media Reception Center (CRM) (refueling, provisioning, shelter, replacement of material resources, etc.).
4. Carry out with municipal means, together with the Security Group, the systems of notices to the population, especially disseminated population, following the criteria of the group manager.
5. Carry out the protection procedures for the affected population, together with the Security Group (evacuation, evacuation routes, meeting points, confinement, isolation or personal self-protection) according to the guidelines given by the Technical Director.
6. Organize the evacuation, transportation and shelter for the affected population.
7. Enable premises capable of housing the population.
8. Solve the needs of water and food supply.
9. Supply of the necessary equipment to care for the affected population.
10. Attend to the isolated population.
11. Provide the other action groups with all the necessary logistical support, as well as as the supply of those products or equipment necessary to be able to carry out out its mission.
12. Provide social assistance to affected people.
13. Manage the control of all people displaced from their places of residence due to the emergency.

14. Pay attention to the critical groups that may exist in the emergency: handicapped, sick, elderly, pregnant, children, etc.

15. Organize, if necessary, the shelter and provisioning of personnel intervener.

16. Provide support with your media to communications in general.

2.5.6.- ESSENTIAL SERVICES REHABILITATION GROUP.

Electricity, water, fuel and electricity are considered Essential Services. telephony. Its task will be to maintain the essential services for the continuity normal activity of the population in emergency areas or, when these services are interrupted, restore them as soon as possible the circumstances.

The person in charge of the Group will be designated by the Director of the Plan.

The scope of action of this group is the territory, the infrastructures, the facilities, buildings and means of transport that are considered as priority by the Plan Management.

Functions:

1. Organize the protection strategy against possible failures in the services taking into account the scenarios provided by the Plan Management.

2. Allocate the necessary means and resources to restore the possible damages that occur during the emergency, as well as establish the priorities to be determined, especially with respect to critical facilities such as hospitals and specialized care centers; collection, distribution and refrigeration food; coordination centers; telephone stations; ports and airports, electricity generation and/or distribution, etc.

3. Coordinate the actions required to support the needs of the groups of intervention.

4. Coordinate the actions required in order to restore essential services to the municipalities affected or at risk, and to shelter areas.

2.5.7.- TECHNICAL SUPPORT GROUP.

This is the Group responsible for facilitating the information mechanisms for decision-making. decisions of the Technical Director, evaluating the situation and establishing possible emergency developments.

This group will preferably form the Coordination Center at the discretion of the Technical Director.

The main functions of the group are:

1. Evaluate the situation and establish forecasts about its possible evolution and its consequences.

2. Collect the precise vulcanological information for the Technical Director.

3. Collect the precise meteorological and environmental information for the Director Technical.

4. Analyze the vulnerability of the population, assets, etc. given the possible effects of the emergency.

5. Prepare the necessary technical reports for the direction of the Plan

The following media will be included in this group, which in the case of those belonging to the General State Administration will be framed in the same in accordance with the activation procedures established in the resolution cited in point 3 of section 1.5.1. Legal framework:

- Forest Engineer or Forestry Technician with experience in extinction of forest fires, the Government of the Canary Islands or other administrations.
- Volcanic risk specialists from the National Geographic Institute (IGN).
- Staff of the Geological and Mining Institute of Spain (IGME)
- Technical specialists in civil protection.
- Cartographic management and Geographic Information Systems (GIS) technicians.
- Staff of the Spanish Institute of Oceanography (IEO) for the study of the evolution of the physical-chemical and biological parameters of the ocean. Simulation

of marine volcanic plumes and affect marine communities, fisheries, etc

- Specialists from the State Meteorological Agency for the study of the evolution of meteorological parameters, as well as cloud simulations of ashes.
- Personnel of the corresponding Island Water Council
- Maritime Captaincy and Port Authority.
- Room manager of CECOES 1-1-2.
- Civil Aviation.
- In addition, the Technical Director may invite other Other specialists in depending on the emergency situation.

CHAPTER 3. OPERATION

3.1.- GENERAL OPERATION.

The operation of PEVOLCA constitutes the set of procedures, strategies and tactics, previously planned, that allow the implementation of the Plan depending on the scope and severity of the emergency.

It describes, in a general way, the actions that must be carried out, both in a normal situation, as in the different stages that occur in a emergency.

These stages are basically:

1. Notification, evaluation and classification of the emergency.
2. Activation of PEVOLCA.
3. Emergency management.
4. End of the intervention.

3.2.- NOTIFICATION, ASSESSMENT AND CLASSIFICATION.

This stage is unique because, for most risks, once they are manifests the phenomenon develops according to a sequence of events that will continue until the end of the emergency. In case of volcanic risk There may be several trigger conditions for a new behavior, either lowering the activity, and therefore the risk, or on the contrary, intensifying it.

There will be several sources of information on the appearance of signs that indicate that there is a volcanic risk, from the beginning given that the volcanic behavior is registered by means of some indicators, it is expected that the first observations of the level of volcanic activity come from the organisms that carry out the surveillance volcanic activity (seismicity, deformations, gas emissions, etc.), other signs such as the presence of gas and fumaroles could come from the residents themselves or from the local authorities.

3.3.- ACTIVATION OF THE PEVOLCA.

volcanic activity (seismicity, deformations, gas emissions, etc.), other signs such as the presence of gas and fumaroles could come from the residents themselves or from the local authorities.

3.3.- ACTIVATION OF THE PEVOLCA.

The activation and deactivation of the Plan is declared by the Director of PEVOLCA, based on the critical point at which preventive measures must be taken to avoid at all cost the risk to people's lives. Taking into account that the risk volcano comprises a series of actions to be carried out sequentially. globally established a population alert system based on the selection four colors. In this way the population will be able to adopt certain behaviors based on an easy to understand symbol is the so-called volcanic semaphore.

Below are the colors and their meaning from the point of view of the Civil protection. Within each color band and in order to unify the nomenclature of the different situations and levels of an emergency will be used to this Plan the terminology proposed in the PLATECA. Its objective is that citizens always identify the same language by public authorities regardless of the nature of the risk.

3.3.1.- DESCRIPTION OF THE TRAFFIC LIGHT FOR INFORMATION TO THE POPULATION.

1. COLOR GREEN.

It is considered such a low risk condition for the population that it does not require taking protection measures. This condition can range from periods of great calm, to situations with an apparent reactivation of the volcanic system, but whose period of time can last for years, or to situations of considerable activity but In addition to lasting a long time, it can even return to a calm situation. From the point of view of volcanological research, it could even promote the incorporation of additional equipment to improve records. In this condition the Scientific Committee for the Evaluation and Monitoring of Volcanic Phenomena will establish the guidelines to carry out the checks and analyzes that are required according to the observed behavior.

2. YELLOW COLOR (PLAN ACTIVATION)

There are increases in anomalies or the appearance of other indicators that recommend a pre-eruptive period in the medium term. The deployment of additional instrumentation to monitor the crisis and search for a definition specific geographic area of the possible affected area. From the point of view of the

Civil Protection is necessary to start informing the population in order to take forecasts for a possible volcanic eruption. In addition, all action plans that have been designed and tested by the different administrations State, Autonomous, Insular and Municipal (especially municipalities at risk and of medium). Indications will be given to the population before possible evacuations.

3. COLOR ORANGE.

Records of the behavior of volcanic activity indicate that there are pre-eruptive phenomena that show that a pre-eruptive phase is developing eruptive, which triggers the emergency phase because it must proceed to the immediate evacuation of potentially affected populations. It is also compatible with a volcanic eruption that does not pose a risk to the population. In At this time, the CCES will have a complete zoning of those areas that may be affected by different volcanic hazards. must be followed thoroughly the indications of civil protection to guarantee an evacuation ordered.

4. RED COLOUR.

It begins when the volcanic eruption is confirmed and this poses a risk to the population or essential infrastructures. This situation of extreme risk for the people's lives require the immediate application of all means and resources of the plan. In this phase the eruptive processes become evident, with strong earthquakes or the very exit of the magmatic material to the surface. In this situation there must be completed the evacuation of the entire population at risk, and in the event that it does not completed, the mandatory evacuation will proceed.

3.3.2.- SITUATIONS AND LEVELS:

The operation of PEVOLCA will be specified specifically in situations of following activation:

- Pre-alert situation. Green traffic light.
- Alert Situation. Yellow traffic light.
- High Alert Situation. Orange traffic light.

• Emergency Situation. Red light.

o In the Insular (0-1) -Autonomous (2)- State (3) Levels

These situations are established based on forecasts about the possible eruption volcanic, such as:

a) Volcanological forecasts.

b) Information obtained from the Volcanic Surveillance System.

c) Evolution of the event or phenomenon.

3.3.3.- PRE-ALERT SITUATION. GREEN TRAFFIC LIGHT.

When the pre-alert situation occurs, as a prediction of eruptive processes at medium term, communications should be addressed to the population under the condition of green traffic light and to the organs of the Plan capable of inducing a state of attention and vigilance about the circumstances that cause it. They must implicitly carry the tasks of preparation in order to reduce response times for a rapid intervention and remain attentive to the receipt of new information.

The Scientific Committee will determine the condition that marks the beginning of an activity volcanic activity suggesting a significant increase that could continue into a eruptive process. For this situation, two possible conditions are foreseen: an initial with sufficient moderate activity to initiate the pre-alert situation, and then a moderate-increasing one that indicates a significant intensification of the freak.

This situation does not pose a danger to the population to give guidance so that the information to the population will be confined to informing about the new pre-alert volcanic condition but that there are no conditions to take protection actions.

The Island Council, in coordination with the affected municipalities, has the competence of management in this situation.

3.3.4.- ALERT SITUATION. YELLOW TRAFFIC LIGHT.

Occurs when the Scientific Committee, based on the results of the analyses, informs to the Management of the Plan that the levels of activity are intense enough to start alerting the population. Zones are more precisely defined of volcanic danger. Civil Protection evaluates the vulnerability of the areas of influence to guide evacuation plans and the development of logistics.

The declaration of this situation will be sent by CECOES 1-1-2, CECOPINES and CECOPALES, through the means deemed appropriate by the organizations and entities of the plan.

In a situation of alert, prevention and limitation measures will be established. activities deemed necessary by the different administrations Canary Islands.

In this situation, the mechanisms for updating the information must be activated. information and start the preparation tasks that allow reducing the times response to a possible intervention. They will be established by the bodies corresponding limiting and prohibitive measures to reduce volcanic risk. Likewise, this situation can be declared in the event of a volcanic eruption without risk for the population.

This stage of the management process, the Plan will focus on preparing the evacuation preventive.

The change to alert situation brings with it the issuance of notices and communications to the corresponding institutions and self-protection guidelines through the media, and the populations at direct risk are made aware of the plan of planned evacuation and recommendations on how to act. In this situation it goes to yellow traffic light as a visual means for the population to know what the time to prepare for a possible unfavorable evolution of the phenomenon.

The Island Council, in coordination with the affected municipalities, has the competence of the management of this alert situation through its corresponding Island Action Plans for Volcanic Risk or failing that through the Insular Emergency Plan (PEIN).

3.3.5.- MAXIMUM ALERT SITUATION. ORANGE TRAFFIC LIGHT.

The maximum alert will be carried out with a very short-term prediction and it is an action that Its purpose is to immediately induce the recipient to take measures that protect them from the risks or threats to which they are exposed. In this situation it takes carry out the preventive evacuation of the population, this situation being declared by the Director of PEVOLCA.

In this situation, the records of seismicity, ground deformation and data geochemists warn of an imminent eruption. The Scientific Committee will inform the Plan address the need to take immediate protective action to the inhabitants of the areas determined as most likely to receive an impact. This situation will also be declared in the event of a volcanic eruption without risk to the population.

The declaration of this situation will be sent by CECOES 1-1-2, CECOPINES and CECOPALES, through the means deemed appropriate by the Organizations and Entities of the plan.

The change to a situation of maximum alert will bring with it the change to the orange traffic light, all the operational services being ready, issuing notices and communications to the corresponding institutions and self-protection guidelines through the means established by the Information Office. It is delivered to the populations of direct risk the orders to start the preventive evacuation if they can be seen affected by the eruption.

The means of extinction belonging to the Forest Fire Operations will remain in a situation of absolute availability to face, in the first instance, to the fires that occur.

The population will receive permanent information throughout the day, transmitting security and allowing reaction capacity before the possible change of the conditions, in the established places of information and support.

The Island Council, in coordination with the affected municipalities, has the competence of the management of this situation of maximum alert through its corresponding Emergency Plans.

3.3.6.- EMERGENCY SITUATION. RED LIGHT.

The PEVOLCA emergency situation begins when the eruption is confirmed volcanic and this poses a risk to the population or fundamental infrastructures. In the event that the volcanic eruption does not pose a risk to people's lives The traffic light will remain orange in a situation of maximum alert or even in yellow color in alert situation.

This situation of extreme risk to people's lives requires the application immediate use of all means and resources of the Plan. At this stage it becomes evident eruptive processes and the actual output of magmatic material to the surface. In this situation, the evacuation of the entire population at risk must have been completed, and In the event that it has not been possible to complete it, the evacuation will proceed. mandatory.

The change to an emergency situation will bring with it the change to a red light.

The qualification of the operational levels will be carried out by the Director of the Plan with the information proposed by the Technical Director. Said rating may vary from according to the evolution of the emergency.

The change from one activation level of the Plan to another must be recorded in the CECOES 1-1-2, in accordance with the procedures established at the time.

In an emergency situation, the change of Level (0-1, 2 or 3) to higher levels or lower will be by decision of the Management of the Plan.

PEVOLCA will be activated in Emergency Situations at the following Levels:

- LEVEL 0 - 1. Insular.
- LEVEL 2. Autonomous.
- LEVEL 3. State.

3.3.7.- LEVEL 0 AND LEVEL 1.

Emergency that is identified when, even if there is a volcanic eruption, it occurs without significant risks to the population, infrastructures or the environment atmosphere.

The activation of the Level 0-1 emergency Plan implies that:

- The emergency will be directed by the Island Council.
- The Island Emergency Committee (CIE) is convened.
- The Directorate of the Plan activates and convenes the Advisory Committee.
- The CECOPIN will be the coordination center for human resources and materials assigned to the emergency and actions derived from the same.
- The mobilization of the Action Groups will take place.
- The CECOPIN will provide the CECOES 1-1-2 room with the information available with immediacy and continuity, in relation to the importance and seriousness Of the same.
- The CECOES 1-1-2 with the information provided by the CECOPIN will notify the Action Groups of the existence of an emergency, its characteristics, forecast of evolution, affectation to the population, as well as derived risks.
- In the event that the assets of a non-forest nature that can be affected need the presence of extinction and rescue groups competent, these will be activated from the CECOES 1-1-2 at the request of the CECOPIN.
- At the discretion of the Plan Management, through the Office of Information will be sent to the media those information and recommendations that may be of general interest.
- The leadership of the PMA will be exercised by the Technical Director of the Plan, who it also directly manages all the Action Groups.

- CECOPAL will carry out support tasks for CECOPIN, and information to the population on the evolution of the emergency.
- CECOPAL, following instructions from CECOPIN, will activate the members of the Logistics Group necessary to meet the emergency.
- The request for extraordinary state resources will be made by the Address of the Plan to the competent body of the Government of the Canary Islands, to through CECOES 1-1-2, for processing and management. In annex 4 it is presents the model of "Request for media intervention state ownership".

3.3.8.- LEVEL 2.

Level 2 reflects an increase in the seriousness of the situation, with serious affectations or increased risk to the population. The Scientific Committee will be in communication directly with the Plan Management in order to report any change or deviation in the conditions of volcanic activity, being the organ capable of reporting the cessation of volcanic activity or its normalization. In this situation, effects may occur. derivatives on relatively remote sectors of the population, either due to the effects of forest fires where control has been lost or due to the action of ashes, the latter capable of seriously affecting electrical networks and infrastructures, communications or directly causing the collapse of roofs or clogging drainage, in addition to the possible contamination of water. This involves informing the population about the planned measures and recommendations. This phase can last from a few days to last for weeks or months.

The activation of the PEVOLCA at level 2 implies, in addition to all the collections at level 0-1, the following performances:

- In this Level 2 the emergency will be directed by the Government of the Canary Islands. When the emergency seriously affects the population, it is required establish active Civil Protection measures, for which reason it will be directed by the competent body in matters of Government Civil Protection.

- The CECOES 1-1-2 will be constituted as CECOPI in case it is necessary.

• CECOES 1-1-2 will be constituted as CECOPI in case it is

3.3.9.- LEVEL 3. required.

3.3.9.- LEVEL 3.

The establishment of the emergency situation at Level 3 implies that there are highly dangerous conditions that can cover extensive areas where there is no It is possible to insure the lives of people with the resources provided in the Plan.

The establishment of the emergency situation at Level 3 implies that there are highly dangerous conditions that can cover extensive areas where there is the It is possible to insure the lives of people with the resources provided in the Plan.

At this level of emergency, eruptions of high power or of difficult prediction of their behavior, and implies the affectation of larger areas than those predicted by a normal effusive event. The Scientific Committee will be in direct communication with the Plan Management in order to report any change or deviation in the conditions of volcanic activity that increase the risk conditions.

At this level of emergency, eruptions of high power or of difficult prediction of their behavior, and implies the affectation of larger areas than those predicted by a normal effusive event. The Scientific Committee will be in direct communication with the Plan Management in order to report any change or deviation in the conditions of volcanic activity that increase the risk conditions.

The activation of PEVOLCA at level 3 implies that the emergency is now being managed following what is established in the State Plan.

The activation of PEVOLCA at level 3 implies that the emergency is now being managed following what is established in the State Plan.

Situations and volcanic traffic light for information to the population

Situations and volcanic traffic light for information to the population

SITUATION	VOLCANIC TRAFFIC LIGHT FOR INFORMATION TO POPULATION	LEVEL OF VOLCANIC ACTIVITY
PREALERT	Carry out your activities normally. Know your physical environment and find out what to do in case of volcanic activity.	Parameters set in **normal situation.**
ALERT	Be attentive to communications from civil protection authorities. Preparation of preventive evacuation.	Increased seismicity, emission gases and ground deformation. Rash without risk to the population
MAXIMUM ALERT	It implies the start of preventive evacuation. Make yourself available to authorities.	Seismicity and geochemical records warn of a ground deformation and imminent eruption data. geochemists warn of a Rash without risk for impending rash. population.
EMERGENCY	Total evacuation of the population that can be affected.	Eruption without risk for the total evacuation of the population that can Volcanic Eruption without risk to the population. important to the population.
	Active Civil Protection measures.	Volcanic eruption with risk for the population. important infrastructures and environment. High Power Volcanic Eruption and difficult prediction of behavior.

Correspondence with the phases, levels and situations of the State Plan and the Island Plan

Situation VOLCA	Level VOLCA	Phase state plan	Situation state plan	Phase Island Plan	Situation Island Plan
				Follow-up	Normal
prealert		intensification of monitoring and Information	Situation 0	preemergence	prealert
Alert					Alert
Alert maximum					Alert maximum
Emergency	0-1 Island	Emergency	Situation 1	Emergency	Performance progressive
	2 Autonomous		situation 2		
	3 State		Situation 3*		Alarm
end of Emergency		Standardization		end of Emergency	rehabilitation of Services essentials

* Declared of National Interest

3.4.- END OF THE EMERGENCY.

When the emergency is fully controlled and there is no risk condition for individuals, the Director of the Plan will formally declare the end of the emergency, without prejudice to what is established in the previous points regarding the deactivation of the different levels considered.

The declaration of end of the emergency does not prevent, however, that if necessary continue preventive surveillance in the place or area affected by the accident and continue carrying out repair and rehabilitation tasks, as well as maintaining precautionary measures.

Both the activation of the Plan and the declaration of the end of the emergency will be carried out by the Management of the Plan. The authorities, organizations and services that are were mobilized, alerted or notified in some way. From CECOES 1-1-2 the declaration of end of the emergency will be transmitted by official communication to all those involved and the Government Delegation.

In addition, the following actions will be carried out:

- Withdrawal of operations.

Both the activation of the Plan and the declaration of the end of the emergency will be carried out by the Management of the Plan. The authorities, organizations and services that are were mobilized, alerted or notified in some way. From CECOES 1-

no. 154 1-2 the declaration of end of the emergency will be transmitted by official communication to all those involved and the Government Delegation.

In addition, the following actions will be carried out:

- Withdrawal of operations.
- Deployment of resources.
- Implementation of complementary preventive measures to be adopted, if proceeds.
- Final assessment of the claim: analysis of the actions carried out.
- Preparation of reports and statistics that will be sent to:
  - ÿ General Directorate of Security and Emergencies of the Government of Canary Islands.
  - ÿ Government Delegation / Government Sub-delegations.
  - ÿ Councils and Town Halls.

3.5.- GENERAL ACTIONS TO PROTECT THE POPULATION.

3.5.1.- DETERMINATION OF THE EMERGENCY AREA.

For the determination of the evaluation of the emergency, the Director of the Plan and the Technical Management will have different sources of information:

- The one coming from CECOES 1-1-2, CECOPIN and from the affected municipalities.
- That provided by the Advisory Committee and the different operating centers.
- That developed by the Action Groups, and specifically the Group of Intervention, the Volcanic Surveillance group and the Technical Support Group.

With these data, the Plan Management will determine the emergency zone, and if applicable, will define areas of priority action.

3.5.2.- ACCESS CONTROL.

Access control aims to control the entry and exit of people and vehicles in the emergency area. This control is intended to:

- Facilitate the entry and exit of the Action Groups in the zone of emergency.

- Establish traffic control and disposition of the vehicles of the different groups arriving at the Advanced Command Post or the Center for Media Reception.
- Avoid the entry into the emergency area of personnel not assigned to the Plan.
- Make the corresponding cuts and deviations to avoid damage to the people and vehicles due to access to unsafe roads.
- Minimize the effect of the emergency on the normality of traffic and the road safety.

This control is comprehensive in the affected area and therefore contemplates road traffic in the entire island through the traffic control centers of the Cabildos.

The application of this measure involves cutting, diverting and controlling traffic in the area affected and is basically the responsibility of the members of the Security Group in accordance with its action plan and in coordination with the holders or managers of the affected roads.

3.5.3.- LOCKDOWN.

Action that consists of carrying out the planned refuge of the population in a place insurance for it, either their own homes or a suitable place.

3.5.4.- EVACUATION.

It consists of the possible transfer of people who are in the zone of emergency, with survival difficulties, to a safe place. Because it is a measure of longer duration is only justified if the danger to which the population is big.

The various municipal emergency plans, action plans and self-protection should provide for the determination of populated areas at risk volcano, its warning and alert mechanisms, information, its evacuation routes, the meeting points and suitable places to stay in case of evacuation.

The decision to evacuate the population will be made by the Director of the Plan in accordance with the mayor/mayor affected at the proposal of the Technical Director of the Plan. In case of

threat of immediate danger to homes or populated areas, security measures protection will be ordered and carried out by the command of the Security Group, with Immediate notification to the WFP or CECOPIN for transfer to CECOES 1-1-2.

The notification to the population of the order, its execution and direction, will be assumed by the Security Group with support from the Logistics Group, with its own resources, resources local or requested to CECOES 1-1-2 from CECOPAL.

Once the evacuation has been carried out and with the affected population in a safe place in temporary shelters, will be the Logistics Group of the Plan, with the direction of the Affected City Council, responsible for coordinating all the group's work.

3.5.5.- INFORMATION TO THE POPULATION DURING THE SITUATION OF EMERGENCY.

The main objectives that are intended to be achieved with the notices and information to the population are as follows:

- Alert and inform the population.
- Ensure self-protection.
- Mitigate the consequences of the volcanic phenomenon.

The Information Office provided for in the Plan's structure has the function of prepare notices and inform the population about the risk and about the measures of self-protection that must be taken at all times.

At first, public address systems may be used with which it will be possible to inform the population of the protection measures of imminent application or in special cases door to door by means of the Security Group.

Said public address systems must be provided for in the Municipal Plan of PEMU emergencies and provide them to the public order forces in the municipality.

In a second moment, the notices to the population will be made through the media. social communication (radio, television, Internet, information telephone 012), The messages to be disseminated by the Information Office are provided.

Self-protection advice to the population, as well as activation announcements of the plans, are indicated in Annex 3.

3.6.- PROTECTION MEASURES FOR ACTION GROUPS.

These measures are based on:

- All the Action Groups must have the necessary equipment individual protection (PPE's) approved.
- The Action Groups must have adequate training for the execution of operations, as well as knowledge of instructions Basic personal protection in interventions due to volcanic risk.

After the approval of this Plan and by the intervening bodies, it must Provide the Action Groups with the aforementioned protection measures.

3.7.- OPERATING PROCEDURES.

The drafting of operating procedures by all members of the Plan It is a key element for the adequate management of the volcanic emergency.

Some of these procedures are established in the Basic Directive of Planning of Civil Protection against volcanic risk and others are considered necessary to be developed by each responsible administration.

In the final annexes some general lines have been developed for different procedures, which are considered necessary for the coordination of emergencies volcanic.

These procedures are:

Annex 12.- General procedure for access to emergency areas.

Annex 13.- General procedure for coordinating the logistics of intervention.

Annex 14.- General procedure for evacuation.

Annex 15.- General procedure for the coordination and administration of hostels.

Annex 16.- Affiliation and registration centers.

3.7.1.- APPLICATION PROCEDURE AND RECEIPT OF HELP INTERNATIONAL.

The State Administration will coordinate the implementation of a procedure for the request and receipt of international support. The basic criteria of this procedure are listed below.

The request for international aid will be made by the General Directorate of Civil Protection and Emergencies (DGPCE) under the Ministry of the Interior, at the request of the Government Delegate, upon request of the Director of PEVOLCA. This request is shall be carried out in accordance with the procedures established for the application of the Resolution of the Council of the European Communities of 8 July 1991 on the improvement of mutual assistance between Member States, in case of disasters natural or technological. The Council and the European Parliament created in 2001 the Community Civil Protection Mechanism, to support and facilitate the mobilization and coordination of Civil Protection in case of an emergency inside or outside the Community. Work in this sense continues and even after the earthquake of the Southeast Asia, the Council approved an action plan covering all initiatives taken by the Union and the Member States. Simultaneously, Parliament European called on the Council to support the creation of a series of units of Specialized Civil Protection, with the appropriate material and joint training, which are available in the event of natural or environmental disasters in the Union or in the rest of the world (Brussels, 26.1.2006).

3.7.2.- MANAGEMENT AND COORDINATION PROCEDURE OF THE COMMITTEE ADDRESS BEFORE THE DECLARATION OF EMERGENCY OF NATIONAL INTEREST.

The one established by the State Civil Protection Plan against Volcanic Risk, approved by Agreement of the Council of Ministers of January 25, 2013, and published through Resolution of January 30, 2013, of the Undersecretariat of the Ministry of the Interior (BOE nº36, of February 11, 2013).

3.7.3.- COORDINATION WITH THE STATE PLAN.

Coordination between PEVOLCA and the State Plan implies information through the CECOES 1-1-2 to the Government Delegation in the Canary Islands. This information will contain:

a) Activation of the Plan.

b) Characteristics of the foreseeable volcanic phenomenon, consequences to the population and essential services, communication routes and other circumstances that are considered of interest.

c) Classification of the PEVOLCA emergency situation and the forecast of evolution of volcanic activity.

d) Deactivation of the Plan.

3.7.4.- COOPERATION OF THE ARMED FORCES.

When the characteristics of the emergency advise it and with the previous request by part of the Director of PEVOLCA, the Government Delegate will assess the need for cooperation of military units in the tasks assigned to them. such is the case of the Military Emergency Unit (UME) that will be integrated into the Group of Intervention, forming part of the Action Groups. The mobilization protocol and performance is regulated by Royal Decree 1097/2011, of July 22, by which the intervention protocol of the Military Emergency Unit is approved.

3.7.5.- AIR SAFETY OPERATING PROCEDURE.

The safety of air traffic in the face of an eruption requires preventing planes from flying within areas contaminated with ash. This requires proper monitoring of the ash clouds. You can't fly through an ash cloud without hurting to the plane.

It is important that information about volcanic activity circulates quickly between all the groups involved, if possible in real time, to provide the timely information to air traffic directors and pilots. The coordination and notification must be prompt and effective; multiple channels should be used to prevent the loss of a link breaks the information pathway.

From the CECOES 1-1-2 and based on the information provided by the CCES and by the AEMET will notify Civil Aviation of possible risk situations for the air navigation, in order to determine possible no-fly zones.

3.8.- NOTICES TO THE POPULATION. ALARM NETWORKS.

Throughout the duration of the volcanic risk situation or its consequences should be given both periodic warnings to the affected population or affectable as those other points that are considered necessary. In Annex 3 The basic formats of the most important notices and communications are presented for every situation. For the dissemination of notices, each authority must use the means of social communication, public or private, more appropriate in each circumstance. In specific areas this function can be performed by the Local Police or other personnel municipal system through a manual public address system or installed in vehicles.

Section 2.3.4 describes the functions of the Information Office as the only channel of verification and validation of the information that will be supplied to the community and establishes the need for each administration within its area of competence install the required Information Centers, in permanent communication with the Information Office.

3.9.- MEANS, RESOURCES. CATALOG OF MEDIA AND RESOURCES.

3.9.1.- CONCEPT.

Both a means and a resource are considered to be all those elements of any nature that may be useful in an emergency situation.

Means are understood to be those material elements of an essentially mobile.

Resources are understood as natural and material elements of character essentially static.

3.9.2.- OWNERSHIP OF THE MEANS AND RESOURCES

The means and resources of this Plan are those that constitute the endowment of the intervening bodies, whose ownership may correspond both to the Public Administration as well as private companies or private owners.

3.9.3.- CATALOG OF MEDIA AND RESOURCES.

A Catalog of Means and Resources will be prepared, indicating the systems of mobilization and the resources to be used, fundamentally, those that facilitate the access to the intervention area, road network and physical infrastructure, and the provision of water, and in general, the location of support infrastructures for the operations of emergency.

Included in this Catalog of Means and Resources are those contemplated in the Territorial Plan of the Autonomous Community of the Canary Islands (PLATECA), also including those of other Public Administrations that, previously, have been assigned to this plan.

For its update, the different Administrations will have to communicate the relationship of its means and infrastructures to the competent Body in matters of Civil Protection and Emergency Care of the Public Administration of the Autonomous Community of the Canary Islands

The Catalog of means and resources will be updated through the application of the Government of Canary Islands PLAN_EM.

The holders of the media and resources will request the General Directorate of Security and Emergencies access systems to the application for the incorporation of their respective catalogues.

3.9.4.- ACTIVATION SYSTEMS.

For the activation of the means and resources contemplated in the Plan will be established, with the different participating Public Administrations, the appropriate Protocols, Conventions or Agreements that determine these means and the procedures for their urgent activation by the corresponding Coordination Center.

3.9.5.- CITIZEN COLLABORATION.

All citizens, from the age of majority, are obliged to collaborate personally and with their assets and resources, when so required by the Competent authorities, as contemplated in art. 7.bis.3 of Law 17/2015, of 9 July, of the National Civil Protection System.

3.9.6.- CIVIL PROTECTION VOLUNTEER GROUPS.

The Civil Protection Volunteer Groups in the Canary Islands represent a number number of people willing to collaborate with the different Action Groups mentioned in this Plan, depending on the training received. They can also have means and resources available.

The integration of volunteers in a specific Action Group will depend on that specialization and must be coordinated and planned from the Municipal Plans and Civil Protection Islanders. The objective is that their integration in the Action Groups in the event of a volcanic emergency is orderly and based on training and experience of each volunteer to incorporate into the work of a specific Group.

The incorporation of volunteers to the different Action Groups must be known and authorized by the corresponding managers of said Groups, who will assign them the tasks to be carried out and, ultimately, by the Technical Director himself.

3.9.7.- NON-GOVERNMENTAL ORGANIZATIONS.

The Director of the Plan may incorporate the Non-Governmental Organizations that are implanted in the territorial scope of the Autonomous Community of the Canary Islands, to carry out work in emergency care, always integrated into one of the Action Groups.

CHAPTER 4. VOLCANIC RISK MAPS.

4.1.- VOLCANIC RISK MAPS

4.1.1.- VOLCANIC HAZARD MAPS.

Volcanic hazard maps are one of the main elements for the volcanic risk assessment. Unfortunately, there is no single methodology. internationally accepted for the elaboration of the same, but it is important that the hazard maps are made with the same methodology and the same criteria for all the islands, so that the results (both dangerous and of risks) are quantitatively comparable between them.

4.1.2.- CATALOG OF VULNERABLE ELEMENTS

It is considered necessary to carry out a cataloging of elements that potentially may be affected in case of materialization of the risk and within the same identify the main goods and resources of a human, social, material and environment that may suffer damage as a result of a volcanic eruption. Annex 10 shows a representation of different "Information Sheets of Vulnerable Elements" with the relevant information to be registered.

This territorial information is necessary to carry out an evaluation of the foreseeable consequences produced by a volcanic eruption and will form part of the detailed risk assessment, since logically those will vary depending on the vulnerability of the environment in which the risk materializes.

On the other hand, it is understood that the territorial information on vulnerable elements It is also necessary to support the operational management of the emergency and Essential for working with volcanic models and simulations.

On this basis, this Plan understands by Catalog of Vulnerable Elements the documentary, numerical information, and the graphic expression, relative to the goods and resources of a human, social, material and environmental nature located in the territory of potential affectation, in Civil Protection emergencies, in the event occurrence of a volcanic eruption.

4.1.3.- BASIC INFORMATION FOR THE PREPARATION OF THE CATALOG OF VULNERABLE ELEMENTS.

For the elaboration of the Catalog of Vulnerable Elements, we start from the determination, on the one hand, of different zones with different probabilities of affected by manifestations of volcanic activity of different types, and otherwise part with the identification of specific vulnerable elements, in relation to their association to each one of the zones that are determined.

For the determination of the catalog of vulnerable elements, the criteria will be followed. following:

- For generic affected areas: The municipality whose term is is affected
- For specific vulnerable elements: the typological classification of the themselves as shown in the following table, to proceed to their empirical identification in areas of probability of affectation affectation.

SOCIAL TYPE	TECHNOLOGICAL TYPE	NATURAL TYPE
population centers	communication channels	aquifers
Schools	industries	forest masses
administrative buildings	Gas stations	Natural Assets of Special Protection
Nursing homes	Butane/propane storage	
hotel establishments	gas network	Others
Health and socio-health centers	Electricity network	
Entertainment buildings (cinemas, theaters, etc.)	Telephony Network	
Sports facilities	Electrical substations	
Recreation areas (beaches, parks, etc.)	drinking water catchments	
Historical-artistic assets	tunnels and bridges	
Malls	Others	
Agricultural and livestock farms		
Others		

4.1.4.- INFORMATION ON EACH VULNERABLE ELEMENT INVENTORY.

For each of the vulnerable elements inventoried, a file will be made computer with detailed information in case of emergency.

The General Directorate of Security and Emergency, the Island Councils and the municipalities of the risk zones will elaborate the cataloging of vulnerable elements of the zone following unique guidelines established by the Government of the Canary Islands.

4.1.5.- VOLCANIC RISK MAPS.

Based on the vulnerable elements included in the corresponding Catalog, calculate interaction matrices between vulnerable elements and hazards volcanoes, which will be the basis for determining the risk maps.

Annex 19 includes a cartography of total volcanic risk on each island, prepared within the framework of the RiesgoMap Project.

Likewise, a computer application will be developed that is capable of using the information contained in the hazard maps, the zoning of areas with greater potential risk depending on the vulnerability and the data itself that may generate a concrete situation of crisis, to be based on the possible scenarios able to automatically generate a cartographic representation of these probable volcanic risk scenarios. The purpose of this application will be be able to make the most appropriate decisions to proceed with the protection of different areas through the appropriate Civil Protection mechanisms.

The methodology with which the volcanic risk cartography of RiskMap, is the following:

The necessary realization of the volcanic risk map has the purpose of dividing the territory in homogeneous zones or units that represent the same degree of risk against hazards of volcanic origin.

The knowledge of the danger (probability of occurrence of a phenomenon potentially damaging volcanic, of a certain intensity, that acts in a period of certain time in a certain place), of the exhibition (amount of goods that are in one place and that can be damaged by the volcanic phenomenon) and

of vulnerability (susceptibility of exposed goods to be damaged or affected by the incidence of the hazard), allows through their combination, to estimate the risk that supposes a certain process in a concrete place, from which it is possible to Create the risk map for that process.

Specifically, and in relation to the volcanic risk, according to the recommendations of the International Association for Volcanology and Chemistry of the Earth's Interior (IAVCEI), a volcanic hazard map should include:

• Topographic base at a scale that adapts to the information to be represented

• Direct volcanic hazards. Description of each of them with estimates range, propagation speeds, and arrival times. will also include an estimate of the damages that each one produces on people or property.

• Indirect volcanic hazards. Damage-induced hazards will be included here direct established in the previous section.

• Areas affected by the expected damages, considered individually and joint.

• Metadata: date of completion, period of application, data sources supplied etc

• To represent all the elements recommended by the IAVCEI, it is necessary have a large amount of chronological information on volcanic events occurred in the territory to be analyzed.

The proposed risk map has been calculated from the hazard levels most relevant volcanic activity in the Canary Islands, taking into account the degree of damage that the exposed elements can suffer (economic assessment) in the face of these dangers volcanic.

Volcanic hazard depends closely on the location of eruptive centers, Ridges and tectonic fissures. To estimate the location of the eruptive centers, it has been match of the cartography data of the Continuous Digital Geological Map of the Canary Islands (GRAFCAN), from which both the data of the emission centers without crater (extracted from the point layer), such as crater rims (extracted from the layer structures), obtaining as a result the information of the eruptive centers.

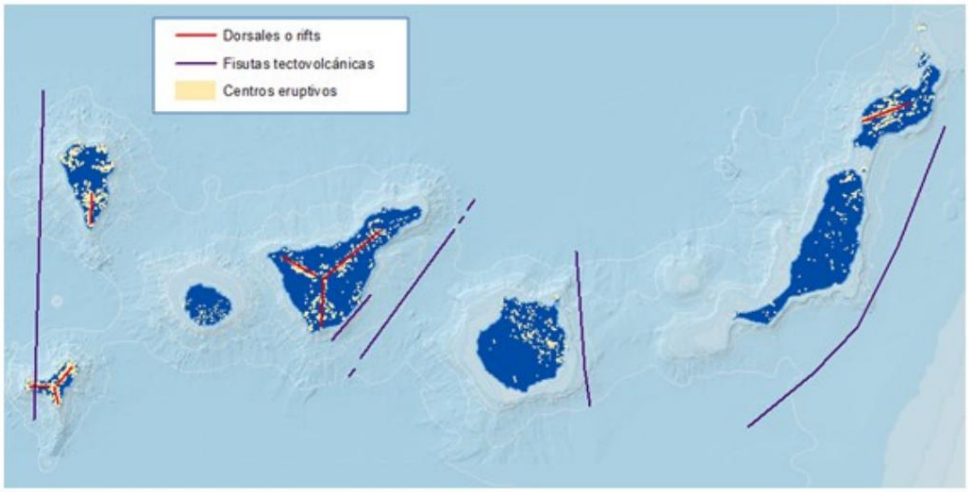
It is important to take into account that each island has a layer of points and structures, so it has been necessary to unify all the information in a single layer. Finally, it is important to highlight that the spatial information of the borders without crater appears in line-type shapefile digital format and that of the emission centers without crater like dots.

Regarding the data of the ridges or rifts, and of the tectonic fissures, they come from the works of each of the authors who have identified them. In the case of the dorsals, the volcanologist JC Carracedo identifies them on the islands of Tenerife, El Hierro, Lanzarote and La Palma. The information from these ridge or rift zones is information that is is implicit in the distribution of the eruptive emitting centers, since when the eruption has taken place through fissures, a strong and Significant alignment of the volcanic cones and their concentration.

To determine the dorsals, the aforementioned information represented by JC Carracedo, transferred to a GIS using a line-type vector layer, called dorsals.

Regarding the existing tectonic fissures, the information from the studies carried out on the tectovolcanic structures existing in the Canary Islands. The main tectonic fissure of the archipelago, and the most active, is It is located between the islands of Tenerife and Gran Canaria. In this area, a fault appears NE-SO that was first described by Bosshard and McFarlane in 1970 and later late by Mezcua and other authors, in 1992. The rest of currently known fissures, have been subsequently described by Carbó et al. in 2003, and by González de Vallejo and others in the same year of 2003.

The tectonic fissures have been represented by means of a vector layer of type lines, called Fissures_tectónicas.



The estimation of the **social volcanic risk** begins by calculating the **social exposure,** understood as the amount of population that can be affected by a certain hazard or threat of volcanic origin, in order to assess the its spatial distribution.

For this, an occupancy load methodology has been chosen, so that each building typology is assigned a value according to its occupation.

In order to express the degree of occupation, it has been necessary to know the total area of the building, to then take into account the number of floors it has, so Way that:

Occupancy rate = Occupancy (people/m2) x Building area x No. floors

For the generation of the layer of buildings, the layers have been taken as reference. corresponding to the Integrated Topographic Map of the Canary Islands (reference scales 1:1,000 and 1:5,000). However, it is also necessary to know the heights of the buildings, in order to be able to take into account the built volume, and therefore the population associated with the building. For the calculation of the heights of the buildings, used for the first time in the Canary Islands the information from the Lidar sensor, which allows us to know exactly the relative heights of the buildings with respect to the soil, thus making accurate estimates of the number of plants. has been generated thus a map of relative heights standardized for the entire territory. This map has

raster format and collects the relative heights of all the elements of the territory with relative to the ground.

At this point in the process, a table has been prepared in which the calculated the occupancy rates by type of building, and according to each type of the building, a degree of exposure has been applied depending on the type of risk.

Finally, it has been established that social exposure is calculated as:

Social exposure = Degree of occupation x Degree of exposure

In the rest of the uses of the territory not related to buildings, it is not possible to assign a degree of occupation of the population and therefore in these areas the social exposure has had to be calculated differently.

On the calculation of social exposure operates the quantification of **vulnerability social,** which aims to identify those characteristics that generate that a certain group of the exposed population presents a higher degree of frailty compared to the rest of the exposed population.

To carry out the calculation of social vulnerability, the calculation must be separated according to the individual or collective fragility. For this, work has been done at the section level. census.

To calculate individual social vulnerability, certain values are established by age and according to the sensitive population represents a percentage with respect to the total municipal population.

Regarding dependent or sick people, the location of hospitals and residences for the elderly are marked with a value of 1. The rest are elements of the territory, regarding this aspect it is considered as 0.

The number of floors that the buildings have is also estimated, since it is related to the difficulty of evacuating the population and the degree of fragility Of the same.

To estimate the total individual social vulnerability, the following has been applied formula:

Vul. Individual social = 5 x age + 5 x dependency + 4 x number of floors

Collective vulnerability refers fundamentally to the characteristics of certain infrastructures, goods and structuring elements that influence the population. HE generated from the following parameters:

- Population density. Each census section has been marked according to its population density.
- Distance to communication routes. Areas of land have been marked in function of the distance that exists to communication routes extracted from the Street map. Only routes of relative importance are selected.
- Distance to transportation centers. Areas of land have been marked in function of the distance that exists to ports and airports, selected at starting from points of interest.

The following formula has been used to calculate collective vulnerability:

Vul. Collective soc. = 4 x density + 5 x communication routes + 2 x centers of transport

Finally, to calculate the total social vulnerability, we have proceeded to add the values of individual and collective vulnerability, obtaining as a result the following 5 levels:

Vulnerability social	**Worth**
Very high	0-6
high	6-12

Finally, to calculate the total social vulnerability, we have proceeded to add the

following 5 levels:

social vulnerability	Worth
Very high	0-6
high	6-12
Half	12-23
Low	23-29
Very low	29

When estimating the social volcanic risk, the only existing areas that present certain

risk are concentrated in those urban areas, infrastructures and elements

When estimating the social volcanic risk, the only existing areas that present certain an area of

risk are concentrated in those urban areas, infrastructures and elements that the social risk

where the population activity is affected, due to the location in an area of have on the population. structures

volcanic hazard. In the rest of the territory it is considered that the social risk

Regarding the **economic volcanic risk,** the first step in its calculation is to determine that the volcanic risk is very low due to the low incidence it would have on the population. **economic exposure,** that is, identify the elements

of the territory that represent

Regarding the economic volcanic risk, the first step in its calculation is to determine the

economic exposure, that is, identify the elements of the territory that represent

a greater value and that can be affected by a certain danger or threat

The economic exposure will be estimated based solely on the use value of land of volcanic origin. using the following formula:

The economic exposure will be estimated based only on the land use value

Land use value = Use value (€/m2) x Area (m²) using the following formula:

That is, according to what is established to classify the economic exposure, if you work in

Land use value = Use value (€/m2) x Area (m²)

raster format and a pixel of size 10x10 is considered, and from the data

That is, according to what is established to classify the economic exposure, if you work in available, the maximum economic exposure value per pixel is €50,000.

raster format and a pixel of size 10x10 is considered, and from the data

Based on this, the following levels of economic exposure have been considered:

available, the maximum economic exposure value per pixel is €50,000.

Based on this, the following levels of economic exposure have been considered: **Very low** Between 0-5,000 **Low Medium**

Levels	Value (€)
	Between 5,000-12,500
Levels Value (€)	Between 12,500-25,000 **Very low**
Between 5,000-12,500	**High** Between 25,000-40,000 **Medium**
	Very High Greater than 40,000

High	Between 25,000-40,000
Very high	Greater than 40,000

Then we had to stop to analyze the **economic vulnerability,**

understood as the estimation of the degree of fragility that the goods can suffer,

Then we had to stop to analyze the **economic vulnerability,**

understood as the estimation of the degree of fragility that the goods can suffer,

levels	Value (€)
very low	Between 0-5,000
Low	Between 5,000-12,500
Half	Between 12,500-25,000
High	Between 25,000-40,000
Very high	Greater than 40,000

Then we had to stop to analyze the **economic vulnerability,**
understood as the estimation of the degree of fragility that the goods can suffer,
existing services, buildings or infrastructures in the Canary Islands, as a consequence
of a natural process of volcanic origin.

In the process, a calculation of the economic vulnerability of the
buildings, and subsequently a calculation of economic vulnerability has been made
for the rest of the soil. Finally, both components have been combined to obtain the
final score.

A necessary characteristic for calculating economic vulnerability is the
need to know approximately the year of construction of the buildings
to know its age. For this, it has been necessary to resort to information
cadastral available in the virtual headquarters of the Cadastre to recover the year of
Approximate construction of the buildings based on the cadastral plot in the
that are found. The data extraction date was June 2014.

This data corresponds to the year of construction of the main building and, therefore,
Therefore, the rest of the buildings on the plot have been assigned the same value. In
those cases in which it was not possible to obtain the data of the year of construction,
assigned an average of nearby buildings.

More specifically, the characteristics necessary to calculate the
economic vulnerability of buildings due to volcanic risk are the following:

- Material of the building wall or type of building
- Type of roof and/or material
- State of the roof and the building
- Number of floors or height of the building

For the typology of the constructions, a crossing has first been carried out to
differentiate the buildings that are in urban areas and those that are
found in rural settlements. Once separated, the classification has been applied
of buildings included in the methodology for the typology of constructions, which has
taking into account year of construction and number of floors.

In the Canary Islands there are few buildings with tile roofs, so the decision has been taken simplification of assuming concrete as the material for the roof. has been applied, for Therefore, a table of types of building categories according to their characteristics of roof, building condition and height.

Both information have been combined to obtain the vulnerability value sought, according to the following formula:

Vul.eco.edif.riesgo.volcanico = Building Typology + Roof Characteristics

The final result is a raster file with a mesh step of 10 meters and the categories of vulnerability normalized from 1 to 5 (Very low to Very high).

Next, the calculation of economic vulnerability has been made for the rest of soil elements based on their typology. To carry out this calculation, used a table that contains different typologies of land uses, for each one of which has been assigned a certain value of volcanic vulnerability.

Once the land uses and the vulnerability of the buildings have been weighted, to To estimate total economic vulnerability, the following formula has been used:

Vul.eco.total = Vul.eco.buildings x Vul.eco.land use

When there is no building, the construction has simply been taken into consideration. soil vulnerability.

Based on all this, the following levels of vulnerability have been established overall economic:

Range	Grade of vulnerability
25	Very high
16-24	high
5-15	Half
2-4	Low
1	Very low

To express the **total volcanic risk,** a €/person value of
155,000.

The total volcanic risk for a given return period arises from the
combination of the social volcanic risk (expressed in economic values) and the risk
economic volcanic activity, in such a way that the result contributes the economic value (costs
or losses) produced by a volcanic event in a determined time:

The total volcanic risk has been expressed in 5 levels.

levels	Values
very low	Values that represent 10% of what would be the maximum value
Low	Values that are included between 25% and 10% of the maximum value
Moderate	Values that are included between 50% and 25% of the maximum value
high	Values that are included between 80% and 50% of the maximum value
Very high	Values that represent more than 80% of what would be the maximum value

And when the combination is carried out not with economic values, but with
weighted values, the following criteria have been applied:

TOTAL VOLCANIC RISK	ECONOMIC VOLCANIC RISK			
SOCIAL VOLCANIC RISK	Very high	high	Half	Low
Very high	Very High	Very High	high	Low
high	Very high	high	high	Half
Half	high	high	average	average
Low	Half	Half	Half	Low
Very low	Half	Half	Low	Low

4.2.- GEOGRAPHICAL INFORMATION SYSTEM.

The Government of the Canary Islands will coordinate the implementation of an Information System
Geographic (GIS), which will integrate all operational aspects of PEVOLCA.

This GIS will be a fundamental tool for risk assessment and management
volcanic emergencies.

4.2.1.- BASIC CHARACTERISTICS OF THE SYSTEM:

4.2.1.- BASIC CHARACTERISTICS OF THE SYSTEM:

It will contain the basic components that establish the basis of operational actions,

as they are:

It will contain the basic components that establish the basis of operational actions,

such as:

- Basic Georeferenced Information:
  - Catalog of Media and Resources.
  - Catalog of Vulnerable Elements.
  - Infrastructure of Essential Services (energy, water, communications, fuel, etc.).
  - Mapping of Volcanic Risk.
  - Cartography of Volcanic Risk
  - Health and Socio-health Centers.
  - Highways.
  - Coordination Centers.
- Operational Plans.

Includes the Emergency Plans of the islands and their municipalities, which implies the raster and vector spatial location of all the definitions established by each organization, meeting points, evacuation routes, circulation systems of the operation aimed at the protection of the inhabitants: shelters, affiliation and traffic centers, control and assistance points, etc.

In the case of intervention measures, it will include everything related to media reception centers and PMA.

- Simulation models.

The system must allow the generation of the various scenarios that may occur, according to the models established by the Volcanic Surveillance Center, with the purpose of demarcating on the ground different areas to which the plans for lava flows, pyroclastic falls will be adjusted depending on the weather conditions, evacuation and protection measures. It must be possible to model the possible prevailing incidence, pyroclastic flows or flows (PDC), effects on traffic, etc. This lava flows, pyroclastic falls depending on the weather conditions implies feeding the system with the information that is generated in a prevailing way, flows or pyroclastic flows (PDC), effects on traffic, etc. This continue.

4.2.2.- DEVELOPMENT AND IMPLEMENTATION.

The characteristics of the GIS determine some actions of each administration that are

implies feeding the system with the information that is generated
keep going.

4.2.2.- DEVELOPMENT AND IMPLEMENTATION.

The characteristics of the GIS determine some actions of each administration that are
They will be carried out in parallel to the preparation of the Emergency Plans for each island.
Its purpose is to make the available information comparable, in such a way that
guarantee its effectiveness, since many of the operations will be conditioned by the
information contained in the GIS.

The GIS will be tested by carrying out exercises and drills that establish the
response times, allowing to verify that the system responds to the
requirements in a real risk situation.

CHAPTER 5. IMPLEMENTATION AND MAINTENANCE

5.1.- IMPLEMENTATION AND MAINTENANCE.

The Basic Civil Protection Standard establishes the regulations for the implementation and maintenance of the effectiveness of the Plan, establishing in the planning the mechanisms aimed at guaranteeing its correct implementation and maintenance the long of the time.

The maintenance of the Plan establishes the actions to be put into practice for the purpose of ensure knowledge of the Plan by all the people involved in it, refine operational procedures, ensure adequate preparation of the organization and update the data corresponding to media and acting personnel, as well as as well as risk analysis, vulnerability, zoning and moments of danger.

After the entry into force of PEVOLCA, the Ministry responsible for security and emergencies of the Government of the Canary Islands, the Government Delegation, the Island Councils, Town Halls and other organizations involved will promote the precise actions for its implementation and maintenance.

In this sense, for the Plan to be fully operational, it will be necessary for all the performers have full knowledge of the planned and assigned actions. The implantation is a deep action, without which the operability will not be achieved. of the plan.

5.1.1.- TRAINING PROGRAMS FOR THE PERSONNEL INVOLVED.

It is necessary that the personnel dedicated to the emergency have an adequate level of preparation, knowledge and experience to perform the assigned tasks with efficiency and with sufficient guarantees for your personal safety. The formation of personnel involved in the Plan must be a continuous task. In annex 17 it is made reference to the "Training Plan" to be carried out.

The Training Programs will be aimed at:

- Members of the coordinating and advisory bodies.
- Members of the Coordination Centers.
- Members of the Action Groups.
- Other organizations involved.

The training will include the following aspects:

- Appoint the members of the Advisory Committee Management Committee Cabinet

• Other organizations involved.

The training will include the following aspects:

• Designate the components of the Advisory Committee, Management Committee and Cabinet Information and means of contact.

Designate the controls (and their substitutes), components and means that constitute Action Groups and localization systems.

• Establish the necessary Protocols, Conventions or Agreements with the agencies and participating entities, both to clarify actions and to media allocation.

• Check the availability of all the means that appear in the Plan.

• Ensure that the prior missions assigned to agencies and entities participants have been completed.

The need to standardize this training for the entire device, as well as the adaptation to state regulations, requires the competent Bodies involved in the Plan the development of training plans that allow meeting the requirements previous.

The training actions derived from the implementation of the Special Plan must be approved by the General Directorate of Security and Emergencies of the government of Canary Islands, following the requirements established in its internal regulations.

5.1.2.- DIVULGATION.

In order for the Plan to be known by citizens who can see affected by a volcanic emergency, dissemination campaigns will be established in which will specify recommendations and prevention and protection measures.

5.1.3.- EXERCISES AND DRILLS.

Likewise, drills will be carried out, coordinated by the competent bodies in matters of civil protection and volcanic risk respectively, with the aim of find out:

- Effectiveness of the implemented model.
- Staff training.
- Media availability.
- Experimentation of new media.

If a total drill is not carried out, partial drills will be carried out, affecting this partiality to the means used or human resources.

5.1.4.- DATA UPDATE.

The following actions must be carried out annually:

- Designate the components of the Advisory Committee, Management Committee and Cabinet Information and means of contact.

Designate the controls (and their substitutes), components and means that constitute Action Groups and localization systems.

- Establish the necessary Protocols, Conventions or Agreements with the agencies and participating entities, both to clarify actions and to media allocation.
- Check the availability of all the means that appear in the Plan.
- Ensure that the prior missions assigned to agencies and entities participants have been completed.

5.1.5.- INCIDENT RECORD.

The CECOES 1-1-2 will leave a computerized record of the actions in which involved, as well as the management and sequential monitoring of the actions of the resources that would have coordinated.

5.1.6.- PEVOLCA REVIEWS.

The PEVOLCA will be valid indefinitely, and will be reviewed in general every five years, except for reasons motivated by technical reasons, administrative or legislative. The review of the plan will be carried out by the same procedure required for your approval.

The annual update of the programs will not be considered a review.
performance or the catalog of media to be used or the annexes.

Gobierno de Canarias

SPECIAL PLAN OF CIVIL PROTECTION AND EMERGENCY CARE DUE TO VOLCANIC RISK IN THE COMMUNITY AUTONOMOUS CANARY ISLANDS

VOLCA

ANNEXES

ANNEXES

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ANNEX 19.- TOTAL VOLCANIC RISK MAPS.

APPENDIX 1

ANNEX 1.- GLOSSARY OF VOLCANOLOGICAL TERMS

The glossary of terms that follows refers essentially to
Volcanological terms, without describing terms of the management of the
emergencies that would be referenced in the PLATECA.

ÿ **Volcanic activity.** - It is any anomalous activity that is related to the
volcanic phenomenon, be it geophysical, geochemical or deformation.

ÿ **Volcanic ash.** - Very small fragments of rock less than 2 mm in size
in diameter, whose origin is in the explosive activity of a volcano.

ÿ **Ash fall.** - Phenomenon of deposition of the ashes emitted by a volcano and
conditioned by the speed of the expulsion and by the intensity and direction of
the prevailing winds.

ÿ **Lava channel.** - Sector of a moving lava spill where the current
incandescent (hot) is faster and becomes more fluid.

ÿ **Fireplace.** - A substantially tubular duct through which the volcanic products
they reach the surface.

ÿ **Lava flow.** - Stream of molten rock (usually emitted non-
explosive), moving away from the emission crater.

ÿ **Pyroclastic flow.** - Currents of high density and concentration, which have the gas
as a continuous phase between particles, and move at high speed along the ground
through laminar flow. Pyroclastic flows are generated by collapses of
eruptive columns, dome collapses and viscous lava flows. Temperature
may present variations from one pyroclastic flow to another, ranging from
that of the ignition of wood, to that of fusion of certain metals and glass objects.
The development of pyroclastic flows poses the greatest risk to the population that
inhabits the vicinity of active, explosive volcanoes.

ÿ **Eruptive column.** - Jet of pyroclasts and gases that are emitted into the atmosphere.
Its dimensions, dynamics and evolution will depend on the characteristics of the
eruption that generates them. The highest and most complex eruptive columns

They are associated with Plinian eruptions. They can reach a height that exceeds 30,000 m.

ÿ **Volcanic crater.** -Emission zone of volcanic products, communicated to through the chimney with the deepest area. Caused by explosion or collapse.

ÿ **Volcanic crisis.** - Set of phenomena associated with volcanic activity in a area, from the appearance of the first precursor phenomena to the total cessation of the activity.

ÿ **Seismic swarm of volcanic type.** - Frequently followed sequence of tremors that They have approximately the same magnitude and a close location.

ÿ **Eruption.** - Emission of solid, liquid or gaseous materials from the inside the terrestrial globe. Culmination of the geological process that begins with the generation of magmas in the Earth's mantle. Volcanic eruptions can be divided into effusive (quiet emission of magma) or explosive (separation violent gas contained in the magma).

ÿ **Submarine eruption.** - Output of solid, liquid or gaseous materials coming from the interior of the terrestrial globe and that is produced in the sea.

ÿ **Lava flow.** - Molten rock flowing from the crater during an eruption. In In general terms, the risk associated with lava flows is conditioned by their composition.

ÿ **Lava front.** - Leading edge of a moving lava spill.

ÿ **Fumarole.** - An opening in the ground through which volcanic gases and steam emanate. water.

ÿ **Gas.** - They constitute the volatile fraction segregated from the magma. Its danger lies in their composition and in the more or less explosive character that they impart to the rash. H2O, CO2 and SO2 are the most abundant gases in volcanic processes. Other gases present are: SH2, CH4, CO, ClH, FH.

ÿ **Wash.** - Molten rocks that are emitted in a volcanic eruption, which cool and They solidify as they run over the surface of the earth.

ÿ **Magma.** - Molten rock in the interior of the Earth, which is located at a temperature between 600ºC and 1200ºC.

ÿ **Eruptive or volcanic cloud.** - Gas cloud, ash and other fragments generated by a volcanic eruption.

ÿ **Pyroclast.** - Magmatic material fragmented by the effect of explosions or liquid-gas interactions in the eruptive column of a volcano.

ÿ **Falling pyroclastic.** - Corresponds to the fragments ejected into the atmosphere during an explosive eruption and are deposited by gravity (because of their weight). The finer fragments are generally carried by the wind, even at great distances. The larger fragments have a ballistic projection and are deposited in a close radius (5 km) to the center of issue.

ÿ **Hot spot.** - Center of a persistent volcanism, it is believed to be the expression on the surface of the rise of a hot plume inside the mantle land.

ÿ **Volcanic earthquakes.** - They are earthquakes associated with the movement of magma below a volcano.

ÿ **Volcanic tremor.** - Type of seismic signal associated with magma movement inside the crust or to the volcanic eruption itself

ÿ **Volcano.** The opening in the earth's surface through which magma reaches the surface.

active volcano . - Volcano that is currently erupting or has records of recent eruptions.

Extinct volcano . - Volcano that is expected not to erupt again.

ÿ **Composite volcano.** - Volcano formed by interspersed layers of lava and material pyroclastic, usually with steep slopes

Dormant or dormant volcano . - A volcano that is not currently erupting, but that it has possibilities of doing it in the future.

ÿ **Monogenetic volcano.** - Volcanoes that have presented only one activity volcanic.

ÿ **Volcanism.** - Set of phenomena and processes related to the emission of magma through volcanoes.

ÿ **Vulnerability.** - It is the degree of resistance and exposure (physical, social, cultural, political, economic, etc.) of an element or set of elements at risk (life heritage, vital services, infrastructure, agricultural areas) as result of the occurrence of a hazard of a given magnitude. can express in terms of probability, in percentage from 0 to 100. Degree of loss (from 0% to 100%) as a result of a potentially harmful phenomenon.

ÿ **Volcanic vulnerability.** - It is the degree of foreseeable losses, which can expressed on a scale from 0 (no damage) to 100 (total loss), as a consequence of a volcanic eruption.

ÿ **Volcanic risk zoning.** - Delimitation of areas that may present a similar volcanic risk for each of the hazard factors analyzed.

APPENDIX 2

ANNEX 2.- MINIMUM CONTENT OF LOCAL ACTION PLANS

The action plan for volcanic risk implies the definition of a structure highly organized where the insular administration plays a leading role in the sense of harmonizing actions with the highest risk municipalities and those that will serve as support. This plan will form part of the Territorial Civil Protection Plan Island and of each Municipal Territorial Plan. To achieve this, it is necessary to determine the characteristics of the volcanic risk within the PEVOLCA structure in each of the established groups. The most important aspects are highlighted below relevant:

CHAPTER 1.- DESCRIPTION, OBJECTIVES AND LEGAL FRAMEWORK

1.1.- Purpose and scope.

1.2.- Legal framework.

1.3.- Competence framework.

CHAPTER 2.- GEOGRAPHICAL SCOPE

2.1.- Geographical situation, limits and surface.

2.2.- Climatology: temperatures, precipitations, winds, etc.

2.3.- Geological aspects.

2.4.- Volcanic danger.

2.5.- Communication channels.

2.6.- Hydrology.

2.7.- Telephone and radio communication networks.

2.8.- Description of the electrical system.

2.9.- Population nuclei.

CHAPTER 3.- ASSESSMENT OF INTRINSIC AND EXTRINSIC RISKS

3.1.- Consequence of volcanic risk

3.1.1.- Lava flow.

3.1.2.- Ash falls.

3.1.3.- Pyroclastic flows (PDC).

3.1.4.- Landslides.

3.1.5.- Seismicity.

3.2.- Extrinsic risks

3.2.1.- Forest fires

3.2.2.- Suspension of basic services for the population.

3.3.- Determination of the number of vulnerable elements in risk areas

SOCIAL TYPE	TECHNOLOGICAL TYPE	NATURAL TYPE
population centers	communication channels	Beaches
Administrative Buildings	industries	aquifers
Schools	Gas stations	forest masses
Health centers	Butane/propane storage	Natural Assets of Special Protection
hotel establishments	pipelines	Others
campsites	Electricity network	
Shows (cinemas, theaters, etc.)	Telephony Network	
Sports facilities	Electrical substations	
Recreation areas (beaches, parks, etc.)	tunnels	
Malls	bridges	
Historical-artistic assets	drinking water catchments	
Others	Others	

CHAPTER 4.- ORGANIZATION OF LOCAL ACTIONS IN EMERGENCY

4.1.- Local action organization chart

4.2.- Management of the Island and municipal Action Plan

4.3.- CECOPIN/CECOPAL

4.4.- Development of action groups led by Cabildos and Municipalities.

4.5.- Integration of municipal and island groups in the PEVOLCA Plan.

CHAPTER 5.- LOCAL ACTION PLANS IN VOLCANIC EMERGENCIES.

5.1. Evacuation plan

The criteria will be defined for carrying out a safe and massive evacuation of the population that could be affected in the event of a volcanic emergency. As minimum It must include the following information on risk areas:

to) collective evacuation

Meeting points of the municipality.

Coverage population.

Signaling.

Access.

Meeting points.

Responsible for coordination of the meeting point.

b) individual evacuation

Evacuation routes in private vehicles

Affiliation and registration centers.

c) Evacuation of people with mobility difficulties

Census of people who require special evacuation (ambulance).

hospitalized

Nursing homes

handicapped elderly

schools for the disabled

ambulance access roads.

destination establishment

d) Transportation of evacuees:

Access roads for evacuated buses.

Exit routes for evacuated buses.

Traffic control points

and) Shelters for evacuees:

Main hostels in the area.

Responsible for their coordination

Internal organization

5.2. Supply, shelter and social assistance plan

Criteria for carrying out assistance to the evacuated population will be defined.
At a minimum, you must include the following information:

- Identification of temporary shelters, with information on capacity accommodation, location, contact person, activation method, etc.
- Involvement of local Civil Protection, hostel logistics.
- Storage, distribution, supplies and provisioning plan.

5.3. Island transmission plan

Established by the CECOES, the DGSE and the Island Council, it must guarantee in each area of risk that communications are maintained for the intervention groups in case of volcanic emergency. You must specify for each risk zone the following information.

- Location of repeaters and links.
- Coverage areas.
- Need for technical requirements.
- Coordination in communications.

5.4. Essential services rehabilitation plan

Actions must be defined to coordinate with service providers public (understood as such: water, electricity, fixed and mobile telephony,

• Coordination in communications.

5.4. Essential services rehabilitation plan

Actions must be defined to coordinate with service providers
public (understood as such: water, electricity, fixed and mobile telephony,
garbage collection, collective transport and fuel) that the
minimum services necessary to guarantee the normal development of daily life.
Each agency or company providing the service must develop a plan of
contingency.

5.5. Communications plan for the population

Determine the communication strategy to the population, including a forecast of
the Information Centers necessary to guide the population at all times,
as well as the design of a communication policy in accordance with the provisions of the
PEVOLCA in this regard.

CHAPTER 6.- INTEGRATION OF THE PLANS IN THE PEVOLCA PLAN.

a) Emergency notification protocols to the Coordination Center.

b) Coordination between the management of the Action Plan and the PEVOLCA Plan

c) Forms of collaboration of the Administration (Local or Insular) with the plans and
the actions of the public Civil Protection system.

d) Catalog of local media and resources to integrate into the PEVOLCA Plan.

e) Computer cataloging of vulnerable elements, containing at least
the following information: name, ownership, code, address, zip code,
neighborhood, municipality, coordinates, hours, telephone, fax, person in charge and modes
location, etc.

CHAPTER 7.- IMPLEMENTATION AND MAINTENANCE OF THE PLAN

7.1 Implementation

a) Verify the necessary infrastructure for the activation of the Plan.

b) Keep updated the designation of the components of the Plan and their formation.

c) Establish the necessary protocols, conventions and agreements with the different organisms and entities.

d) Prepare education and training campaigns.

e) Develop information and dissemination campaigns aimed at citizens.

f) Establish the mechanisms for review and maintenance of the Island Plan or municipal, as well as the various action plans that complete it.

g) Carry out exercises and drills to verify the effectiveness, training of the personnel and availability of means.

7.2 Maintenance

a) Plan reviews

b) Periodic checks.

c) Awareness and education plan

d) Training plan

e) Carrying out exercises and drills

ANNEXES

- Local/insular geological map.
- Grouping map of volcanic eruptions
- Distribution map of emission centers
- Zoning map of volcanic hazards
- Map of vulnerable elements
- Island map of volcanic risk
- Road map of risk areas
- Map of the main population centers in the risk areas with routes of evacuation, meeting points and citizen information and support centers.
- Location map of logistical support centers for the population, health centers, affiliation and places of shelter and temporary lodgings.

ANNEX 3

STATEMENT OF

VOLCANIC ALERT YELLOW TRAFFIC LIGHT

Date: hour: Bulletin:

In application of the Special Plan for Civil Protection and Emergency Attention due to Volcanic Risk in the Autonomous Community of the Canary Islands PEVOLCA, and by virtue of the powers established by the Directorate of this Plan, declares the ACTIVATION OF THE PLAN IN THE PRE-EMERGENCY PHASE **- VOLCANIC ALERT SITUATION.**
THE TRAFFIC LIGHT FOR INFORMATION TO THE POPULATION IN YELLOW.

Description of the new volcanic scenario

General ideas to convey. a)
There are volcanic parameters that present anomalies with respect to the average with an indication of a previous eruptive state. b) This situation can last for months or even years. c) It is necessary to remain as calm as possible. It is not necessary to start any evacuation. d) When these moments can arrive, it will be notified in an appropriate way. e) All emergency and civil protection authorities are working to organize a possible emergency.

risk areas

Recommendations to the population ZONES OF RISK in

It is NOT necessary to start the evacuation of risk areas. Just find out at your Town Hall about the evacuation routes and the established meeting point.

Choose a relative or friend as a point of reference to communicate where you are going in case of evacuation and make sure that the rest of your family knows it.

If you live with disabled people who need a special evacuation (ambulance), notify the Social Affairs department of your Town Hall.

Have a battery-operated radio, flashlight, candles and spare batteries, and follow the instructions broadcast by the proper authorities via television and radio.

Make sure you have enough medication for family members who need them on a regular basis.

It is advisable to keep the personal documentation of the whole family and the house in a folder.

It is convenient to have bottled water. Potable water supply could be affected.

It is recommended to have basic and non-perishable food for a few days.

All adults must know how to disconnect gas, water and electricity. It will be necessary to close them in case of evacuation.

If possible, keep your vehicle's fuel tank full. Gas stations may be closed.

If you have farm animals, notify your Agrarian Extension Agency or the information telephone number of the Cabildo, so that they can indicate the actions to be carried out. In case you have to evacuate, do not leave them tied up. release them.

If you have pets, entrust their care to relatives or friends who reside outside the municipalities at risk. If you do not have accommodation for these animals, the authorities will take care of them. For reasons of hygiene they will not be able to be in the shelters.

General recommendations for the rest of the municipalities

Have candles and have a battery-powered radio set. Pay attention to the information transmitted by radio stations, television or other media.

Ignore the rumors, only instructions from official sources should be followed.

Do not approach the municipalities at risk.

Remember that 1-1-2 is a telephone number only for emergencies and that for information you should call 0-12

In case of emergency, the Authorities will conveniently inform about:
Continuation of school activities.

Work activities of Consumption possible contaminations. water and
Traffic of restricted accesses and zones
Specific protection measures
Possibilities of the emergency supply of Habitation

IN ALL TIMES KEEP THE CALM
HE WILL CONTINUE INFORMING TO THROUGH OF THE MEDIA OF COMMUNICATION

In , at daylight hours of 200

EMERGENCY PLAN INFORMATION CABINET

(Seal) Signed:

Gobierno de Canarias

SPECIAL PLAN OF CIVIL PROTECTION AND ATTENTION OF RISK EMERGENCIES VOLCANIC IN THE AUTONOMOUS COMMUNITY OF

1-1-2 CANARIAS

CANARY ISLANDS DECLARATION

OF MAXIMUM ALERT
ORANGE TRAFFIC LIGHT

Date: hour: Bulletin:

In application of the Special Plan for Civil Protection and Emergency Attention due to Volcanic Risk in the Autonomous Community of the Canary Islands PEVOLCA, and by virtue of the powers established by the Directorate of this Plan, declares the ACTIVATION OF THE PLAN IN THE PRE-EMERGENCY PHASE **- MAXIMUM ALERT SITUATION.**

THE TRAFFIC LIGHT FOR INFORMATION TO THE POPULATION TURNS RED.

Description of the new volcanic scenario

General ideas to convey. a)
The volcanic parameters present anomalies that correspond to pre-eruptive phenomena. b) This situation can last days or weeks, but it will hardly return to normality. c) At the moment it is difficult to determine exactly where the eruption will be. d) It is necessary to remain as calm as possible. e) The evacuation of the areas closest to the possible eruption site will begin. f) People with special difficulties will be evacuated as a preventive measure. g) Strictly follow the Civil Protection recommendations. h) All emergency and civil protection authorities are working to organize a possible emergency. i) Use 1-1-2 for emergencies and 0-12 for information.

risk areas

PREVENTIVE EVACUATION

Recommendations to the population to EVACUATE

ZONES TO EVACUATE	MEETING POINT	COLLECTIVE EVACUATION	EVACUATION BY OWN MEANS
		Keep the calm, pass it on spread rumors Close doors and exterior doors, lower the blinds. Close the keys of the automatic passage of the documentation clothing for take your mobile phone and your radio to about three days. slab points meeting Head establishments only phones for what is strictly necessary. At the hostel, talk to the Follow the instructions of the Points of	Keep family to all the together. Use only vehicle to evacuate. Leave with enough evacuation stagger the Follow time to the routes of recommended evacuation shortcuts, they might already If you have a place to stay in a safe area, notify 012 for informational purposes. But If you have a place of accommodation, contact slab Centers of Affiliation established for this zone.

EMERGENCY TELEPHONE: 1-1-2 (one, one, two) INFORMATION TELEPHONE: 0-12 (zero-twelve)
www.gobiernodecanarias.org/dgse

Gobierno de Canarias

SPECIAL PLAN OF CIVIL PROTECTION AND ATTENTION OF RISK EMERGENCIES VOLCANIC IN THE AUTONOMOUS COMMUNITY OF CANARY ISLANDS

1·1·2 CANARIAS

Recommendations to population on ZONES OF ALERT

ZONES IN POINT ALERT OF MEETING		GENERAL TIPS
		watch out for the information provided by the authorities that the media
		emergency. calm down, pass it on propagate them
		Keep rumors spread Respect security cordons establish that instructions follow your services of and no reason to volcano, lava approach flows. by or to evacuate
		Initially it only a batteries and
		Be prepared for a possible evacuation (prepare your documentation for daily use, mobile phone, medicines and batteries, flashlight, charger, radio to clothes for three days). and its Remember to call 112, forget 1-1-2 about the emergency, telephone number effective for information only saturation lack of will contribute to your

IN ALL TIMES KEEP THE CALM
HE WILL CONTINUE INFORMING TO THROUGH OF THE MEDIA OF COMMUNICATION

In , at hours of the day of out of 200

EMERGENCY PLAN INFORMATION CABINET

(Seal) Signed:

Gobierno de Canarias

SPECIAL PLAN OF CIVIL PROTECTION AND ATTENTION OF RISK EMERGENCIES VOLCANIC IN THE AUTONOMOUS COMMUNITY OF

1·1·2 CANARIAS

CANARY ISLANDS DECLARATION OF

EMERGENCY SITUATION 1

RED LIGHT

Date: hour: Bulletin:

In application of the Special Plan for Civil Protection and Emergency Attention by Risk Volcanic in the Autonomous Community of the Canary Islands PEVOLCA, and by virtue of the powers established by the Management of this Plan, declares the **ACTIVATION OF THE PLAN IN PHASE EMERGENCY- LEVEL 1.**

THE TRAFFIC LIGHT FOR INFORMATION TO THE POPULATION STAYS IN RED.

Description of the new volcanic scenario

General ideas to convey. a)
The volcanic eruption has begun. b) Keep
calm. Do not panic c) All people must collaborate with the
authorities for Mandatory Evacuation

risk areas

Recommendations to population

EVACUATION ON COMPULSORY

ZONES TO EVACUATE	OF MEETING	COLLECTIVE EVACUATION
		hold the calm down, pass it on rudimentary
		infused Close all the windows exterior doors, lower the blinds. the
		I carried his Documentation of medications for daily use, telephone and mobile his and telephone points for batteries, flashlight, clothes for about three days. Head over use only
		In the hostel, go to the affiliated Civil Protection instructions. Follow

IN ALL TIMES KEEP THE CALM

HE WILL CONTINUE INFORMING TO THROUGH OF THE MEDIA OF COMMUNICATION

In , at daylight hours of 20

EMERGENCY PLAN INFORMATION CABINET

(Seal) Signed:

SPECIAL PLAN OF CIVIL PROTECTION AND ATTENTION OF RISK EMERGENCIES VOLCANIC IN THE AUTONOMOUS COMMUNITY OF CANARY ISLANDS

TIPS OF SELF PROTECTION IN ZONES WITH FALL OF ASHES

Description of the new volcanic scenario

Recommendations to the population ZONES OF POSSIBLE FALL OF ASHES

Be attentive to the information provided by the authorities. to that calm, pass it

Or hold the

to others

security

spread unfounded rumors

do, cover your nose and mouth with

their

falling, close all doors, windows and ventilation (fireplaces, heaters, air conditioners, etc.).

their homes until

has settled, unless

Don't stay on

home

Remove accumulated ash from flat roofs from rain gutters. y Keep tanks and water covered.

Avoid ash coming into contact with food. Wash fruits and vegetables well.

Do not eat the

Clean shrubs plants shake trees

possible.

Dust frequently, preferably using a vacuum cleaner. Accumulated ash collect it The public sewer.

in plastic bags, deposit it

containers avoid throwing it into the

Avoid driving when there is ash if absolutely necessary.

cautions with dense ash with poor visibility extreme yy

exceed 40 kh/m.

The

in

Very fine fragments can cause in the eyes, avoid rubbing in the tracks

to keep yourself from ash fall: in case Wear long shirts long pants. sleeves

and Wear dust mask or

wear

use

in

lens place.

place a

wet cloth over the mouth.

engines can ash and clog vehicles can break down. Driving

vehicles.

can lift Keep engines off from

IN ALL TIMES KEEP THE CALM

HE WILL CONTINUE INFORMING TO THROUGH OF THE MEDIA OF COMMUNICATION

In , at the hours of the day from 20

EMERGENCY PLAN INFORMATION CABINET

(Seal)

Signed:

Gobierno de Canarias

SPECIAL PLAN OF CIVIL PROTECTION AND ATTENTION OF RISK EMERGENCIES VOLCANIC IN THE AUTONOMOUS COMMUNITY OF

1·1·2 CANARIAS

AND m AND R. G. AND No. C. Yo TO V EITHER L C. TO No. Yo C. TO

CANARY ISLANDS DECLARATION OF

EMERGENCY SITUATION 2

RED LIGHT

Date: hour: Bulletin:

In application of the Special Plan for Civil Protection and Emergency Attention by Risk Volcanic in the Autonomous Community of the Canary Islands PEVOLCA, and by virtue of the powers established by the Management of this Plan, declares the **ACTIVATION OF THE PLAN IN PHASE EMERGENCY- LEVEL 2.**

THE TRAFFIC LIGHT FOR INFORMATION TO THE POPULATION STAYS IN RED.

Description of the new volcanic scenario

General ideas to convey. a) The volcanic situation is critical. b) There are large areas affected. c) The evacuation zones should be expanded. d) All persons must collaborate with the authorities for Mandatory Evacuation

risk areas

Recommendations to

population EVACUATION COMPULSORY

ZONES TO EVACUATE	MEETING POINT	COLLECTIVE EVACUATION
		keep up the calm, pass it on to the others and No spread rumors
		infused Close all the windows ... the light, water and gas and the keys On the
		take your way, documentation, flashlight, mobile phone, medications, charger, radio to
		Go to the established meeting points. Only use the telephone strictly necessary.
		In the hostel, go to the area of Civil Protection. Follow the instructions of

IN ALL TIMES KEEP THE CALM

HE WILL CONTINUE INFORMING THROUGH OF THE MEDIA OF COMMUNICATION

In , at daylight hours of 20

EMERGENCY PLAN INFORMATION CABINET

(Seal) Signed:

AND m AND R. G. AND No. C. Yo TO V EITHER L C. TO No. Yo C. TO

EMERGENCY TELEPHONE: 1-1-2 (one, one, two) INFORMATION TELEPHONE: 0-12 (zero-twelve) www.gobiernodecanarias.org/dgse

ANNEX 4

ANNEX 4.- REQUEST FOR INTERVENTION OF STATE-OWNED MEDIA

Request date: Hour:
Applicant authority: Minister of Territorial Policy, Sustainability and Security
Office: Phone **922 47.01.00** Fax: **922.47.01.03**
CECOES ÿ24 hÿ: Tel. **928 492 112 and 922 532 112** Fax: **928 227 112 and 922 245 112**
Authority to which the request is intended: **Government Delegation in the Canary**
Islands Degree of urgency:
Location and characteristics of the incident:
Location (UTM Coordinates):
Municipality:
Topography:
Foreseeable evolution:
Other interesting information:
media involved
Terrestrial:
Air:
Coordination Center
-Location: Phone: Fax:
Radio frequency used:
Responsible (name and surname)
Media required (type and quantity)
Missions that will be assigned to you
Expected duration of the operation:
Observations:

In the Canary Islands, to THE out of 200

COUNCILOR OF TERRITORIAL POLICY, SUSTAINABILITY AND SECURITY.

ANNEX 5

ANNEX 5.- VOLCANIC HAZARDS AND THEIR MAIN EFFECTS

VOLCANIC DANGER	DIRECT AND INDIRECT HEALTH EFFECTS
lava flows Liquid rocks ejected from the crown or flank of an erupting volcano. Depending on the viscosity and slope of the volcano they can travel more or less quickly. The destructive power lies in the high temperature of the rock that burns forest mass and structures, as well as in the size and mass of the flow, which can crush everything in its path.	They imply little risk for people, except when they face sudden topographic changes along their route. When the lavas move slowly down the slopes of the volcano, they allow the affected area to be evacuated. However, death can occur from burns, gas inhalation, poisoning from ingestion of contaminated water, and an increase in respiratory diseases.
Explosions (stones or volcanic bombs) Release of rock fragments and lava driven by gas. These explosions can throw large blocks of stone several kilometers from the volcanic cone (bursts, projectiles). The devastating power of the explosions lies in the high-speed winds within the cloud, and in the extremely high temperatures of the gas. The explosions are capable of destroying large areas around (Km) the volcano.	They can produce polytraumatisms and burns, inhalation of burning gases that are generally fatal. In areas close to the threat, the impacts can cause death; In addition, the high temperatures that the fragments carry cause fires with the consequent burns. Lacerations can occur from the impact of broken glass, when exploding windows of buildings in your area of influence.
pyroclastic flows They are dense masses of gas and minute fragments of lava that flow down the slopes of volcanoes at speeds of 50 to 200 km/h. They start at high temperatures (600-900ºC). The phenomenon of pyroclastic flows is described as burning clouds or ash flows.	These currents are completely deadly, destroying everything in their path and making it almost impossible to survive them. Those near the edges of the cloud will suffer severe and extensive burns to their skin and respiratory tract. Pyroclastic flows are also capable of generating fires.
Volcanic ash Any fine-grained material that is less than 2 millimeters in diameter. Volcanic ash is rock that has been blasted and torn apart by steam inside the volcano. The wind is an important factor that disperses the ash according to its direction and speed. Ash precipitations greater than 2.5 cm thick can cause the collapse of roofs in structurally vulnerable buildings (or by increasing their density when mixed with water).	Volcanic ash poses a very low risk. It may have a greater effect on those with respiratory tract conditions. Effect on the eyes: conjunctiva and cornea, the ash acts as a foreign body causing abrasions, in addition to the irritant effect. Effect on the skin: basically due to the irritative action that causes dermatitis. Gastric problems in humans. Other problems, such as an increase in traffic accidents due to low visibility and because the rain makes the streets slippery. Polytraumatisms due to falling from the roofs when trying to clean them. Economic losses due to crop damage. Difficulties in supplying due to isolation. Loss of animals due to water pollution. If their content is high in fluoride, they contaminate pastures for animals, agricultural crops and water sources.
volcanic gases They are released in and around volcanoes before, during, and many years after a volcanic eruption. The most abundant gases spewed out by volcanoes are water vapor and carbon dioxide (CO2), which are not directly poisonous. However, most of the less abundant volcanic gases are not respirable, such as sulfur dioxide (SO2) and sulfur trioxide (SO3), which combined with water form sulfuric acid (H2SO4), hydrochloric acid (HCl); carbon monoxide (CO), hydrofluoric acid (HF), hydrogen (H), helium (He) and radon (Rn), among others, called acid rain. These gases are released during eruptions, but they also pass through the subsoil towards the surface, coming from the lava masses that are inside the volcano.	The accumulation of asphyxiant gases (CO2) in lethal concentrations is more likely on the slopes of a volcano, inside a crater or near a fissure; while irritating gases (H2S) can exert their effects at lower concentrations for many kilometers around the volcano. In high concentrations, hydrogen sulfide cannot be detected as it causes paralysis of the olfactory nerve. However, this cannot be considered a generalized public health concern for the entire population at risk, since the threat is directly related to the location and geomorphological conditions of the area and the person's exposure to it. Acid rain of volcanic origin burns and kills vegetation and, although it does not represent a direct risk to people's health, it corrodes pipes and roofs and contaminates water sources in open-air tanks. If the rainwater for family consumption is collected from metal roofs, it should be examined to check for the presence of excess fluorides or toxic metals. Although rare, there is a real possibility that chemicals or acid rain could contaminate some water sources.
Lightning bolts Intense lightning bolts frequently accompany the ash clouds.	They increase the sense of alarm among the population. Shocks can occur on communication towers and electrical power transformers. The impact on health occurs in the case of possible fires or direct impact (polytrauma, burns).
earthquakes The start of an explosive eruption can be preceded by earthquakes that also accompany the eruption and even persist after the eruptive process. Their magnitudes may be sufficient to collapse structures and cause	Special consideration must be given, not only to housing, but also to the possibility of bridge collapse and landslides on the roads, which could block evacuation routes and access routes for emergency personnel.

chemicals or acid rain contaminating some water sources.

Lightning bolts Intense lightning bolts frequently accompany the ash clouds.	They increase the sense of alarm among the population. Shocks can occur on communication towers and electrical power transformers. The impact on health occurs in the case of possible fires or direct impact (polytrauma, burns).
earthquakes The start of an explosive eruption can be preceded by earthquakes that also accompany the eruption and even persist after the eruptive process. Their magnitudes can be enough to collapse structures and cause damage.	Special consideration must be given, not only to housing, but also to the possibility of bridge collapse and landslides on the roads, which could block evacuation routes and access routes for emergency personnel.
Tsunamis They are sea waves of more than 5 meters, produced by violent eruptions, coastal landslides and submarine earthquakes.	The occurrence of a tsunami is unlikely due to the bathymetry of the archipelago.

ANNEX 6

ANNEX 6. VOLCANIC RISK IN THE CANARY ISLANDS

1.1.- ERUPTIVE DYNAMICS

The Canarian landscape is the result of the interaction of original materials magmatic and the action of weathering agents that are established by the weather conditions and the relief itself that is being formed, that dynamic where various layers overlap and are transformed resulting in high complexity to decipher the dynamics of the different types of eruption.

Through Petrology and Geochemistry it can be inferred about:

- Characteristic of the zone of origin of the magma
- Magma evolution (petrogenesis)
- Structure and dynamics of the magma chamber
- Dynamics of the eruptive process

1.2.- TYPES OF ERUPTION

To explain the complexity involved in a volcanic eruption, one can define in six fundamental behaviors that in many cases can be present in a mixed way:

Effusive: The explosiveness is minimal and the emission of magma is in the form of lava flows. This type of eruption is more typical of basaltic magmas.

Strombolian: It is of low explosiveness to small pulses of magmas basaltic, less viscous and poor in gases than those more evolved, the Magma, being sparse, facilitates the migration of gas bubbles and facilitates their rise to the surface. The products that are emitted correspond to bombs, lapilli (picón) and ashes that accumulate near the emitting center giving rise to a characteristic conical building of this type of eruption, generally of dimensions small, strombolian eruptions of greater intensity can generate explosive columns a few kilometers high. Strombolian volcanism is the most common on the islands.

Hydrovolcanic or phreatomagmatic: They are produced by the interaction of the magma with water, either surface (lake, river or sea) or underground (water table). HE It occurs with any kind of magma and can have a high level of explosiveness.

Vulcanian: It is an explosive eruption of great violence and occurs in areas relatively shallow sections of the volcanic conduit at a point where the rise of the magmatic material is impeded by the presence of a plug of magma rock solidified or by the host rock itself. When the pressure of gases or steam of an aquifer is higher than the plug, the explosion occurs, this type of eruption It presents eruptive columns inferior to the Plinian ones.

Plinian: They are the most explosive explosions, being able to generate high-altitude eruptive columns, ballistic projection of fragments and flows pyroclastic.

Domes: It is a morphological term. It is an extrusive body of several tens of meters high that is generated when there is a very slow exit of highly viscous lavas. If a dome continues to grow it can collapse and give rise to a very explosive eruption. generating pyroclastic flows.

1.3.- IDENTIFICATION OF THE TYPES OF VOLCANIC HAZARD

The damage caused by the different products of a volcanic eruption depends first of all, the type and magnitude of the eruption, the distance between the element vulnerable and the source of the hazard, from topography, wind and other variables meteorological conditions, the vulnerability of the social or environmental elements present in the territory and finally, the alarm system and the mitigation capacity of the risk.

The concept of volcanic hazard encompasses that set of events that They occur in a volcano and can cause damage to people or property exposed. The dangers associated with volcanic phenomena likely to occur are:

VOLCANIC EARTHQUAKES.

Earthquakes of volcanic origin are, for risk purposes, exactly equal to tectonic earthquakes, so the extensive experience in valuation of the seismic risk can be applied in this case.

Volcanic seismicity, when it occurs in swarms, is usually related to with hydraulic fracturing due to the rise of magma. However, in most of cases the process does not have enough energy and remains as an intrusion without reach the surface. These "false alarms" abound in the history of the Canary Islands. In the island of El Hierro at the end of the 18th century the earthquakes were so intense that it reached to propose the evacuation of the island, without an eruption taking place. Something A similar thing happened in La Palma in 1936 and in Tenerife in 2004.

If eventually the foci are increasingly superficial and of intensity growing prelude an eruption. In this case they can acquire, very locally, a sufficient intensity to demolish masonry houses, church towers, produce collapse of structures and slopes, rupture of water tanks, etc.

The strength of earthquakes is also associated with the explosive nature of the eruptions being greater in the plinian or subplinian and hydrovolcanic.

In Annex 8 "Macroseismic Intensity Scale" a table is indicated with the degrees of intensity of earthquakes.

Seismology is the oldest and most effective volcanic monitoring technique for determine the volcanic state and its evolution; an increase in volcano activity associated with an increase in seismic activity.

PYROCLAST PROJECTION.

Its characteristics vary depending on the characteristics of the magma.

In basaltic eruptions, the eruptive mouth throws fragments of lava into the air. that accumulate forming a typical volcanic cone (eg El Teneguía). the fragments larger ones (scoria and volcanic bombs) can reach hundreds of meters high and, with a ballistic trajectory, spread to great distances from the volcano depending on its explosive nature. Its interior can reach high temperatures (1000-1200 ºC) so they can cause burns and fires.

In phonolitic eruptions the potential for explosiveness is greater. The emitted fragments form a volcanic cone (eg Mña Blanca), but disperse much more and the thinnest ones can cover areas of several centimeters of the island, controlled in their geometry by the force and direction of the wind. In counterpart, have a lower exit temperature, although the larger fragments in

the vicinity of the eruptive mouth still have enough to cause fires. Their low weight makes them easily washed away by rainwater, accumulating in ravines, being able to clog open pipes. Are not so dangerous for people outside an area very close to the volcano, but for people infrastructures, transport networks and vegetation in a large area.

In the particular case of eruptions in which magma comes into contact with water (marine, groundwater, etc.), the increase in explosiveness can be enormous, generating large explosive structures (for example, the abundant littoral cones in Lanzarote, Bandama in Gran Canaria, the crater of Pico Viejo in Tenerife, etc.), scattering large blocks of stone over distances of many hundreds of meters and minor fragments and fine dust kilometers away. These materials come out much cooler and it only has mechanical effects due to impact and great capacity to fill ravines, cut roads and clog pipes. In the proximity of populations it is necessary to expect destruction of roofs by ballistic impacts.

VOLCANIC ASH FALL.

The density of the ash varies between 0.5 and 2 g/cm3 , depending on the compaction it experiences and the water content. This means for 1 cm of ash thickness loads up to 20 kg/m2 . Ash can accumulate on roofs smooth with slopes of less than 20%, and if there are rains, the water increases the weight of the ashes and in the case of channels they can solidify, sealing them. It has been The collapse of roofs with thicknesses of only 2-3 cm has been verified. of ash.

ÿ Electronic equipment suffers significant damage both due to the capacity abrasiveness of the ash as well as by its electrical behavior. the ashes are tremendously conductive when wet, a fact that is quite frequent, causing important short-circuits. It is important keep it very present in power generating plants and stations transformers. The same care should be taken with the water system, pumps, filters and valves, very susceptible to damage from the fall of a fine layer of ashes.

ÿ Inhalation of ash can cause worsening of diseases pulmonary (asthma, silicosis, etc.) due to prolonged exposure to the open air.

ÿ It can also cause gastrointestinal disorders due to ingestion of water contaminated with fluoride and possibly with heavy metals (arsenic, mercury, etc.) or by ingesting contaminated food.

ÿ Can cause eye damage such as conjunctivitis and corneal abrasions.

ÿ Fine ash can cause pollution in clean indoor environments such as operating rooms, pharmaceutical laboratories, precision mechanics, optics, in the food industry, etc.

ÿ Radio and television interference, as well as power failures.

ÿ Layers of 1 to 2 cm. ash can cause major damage to the industry with mechanical, electrical or chemical equipment. Likewise, the Cleaning must be done with machinery specially prepared to work in very abrasive media.

ÿ Ash rapidly decreases the filtering capacity of the soil, plugs pipes and waterways, considerably increasing the risk of floods.

ÿ The effects on agriculture depend on the type of crop, its degree of development and obviously the thickness of the fallen ash layer.

ÿ Ash deposits can remain unfixed for a long time, especially in arid areas, being easily removed by the wind and spreading to greater distances for a long period after the rash.

ÿ They can cause automobile accidents (slippery roads and poor visibility). Air accidents, due to the entry of ash into the engines and turbines.

PYROCLASTIC FLOW

They are incandescent masses formed by ash, gases and rock fragments at high temperatures with a high density due to the presence of ashes and clasts of different sizes, many of them coming from the canal wall. HE move downhill at high speeds (50-250 km/h) and have high temperatures at time of deposit (350-1000ÿ C). The most developed flows are produced during explosive eruptions by the collapse of eruptive columns

when it becomes heavier than the atmosphere and not being able to continue rising through convection.

Of smaller magnitude and volume, pyroclastic flows are produced by the collapse of a lava dome or minor collapse flows of lava flows with high gas content. Pyroclastic flows can be extremely dangerous due to their high speeds, high temperatures and the great extension that they can cover. Objects and structures in its path may be destroyed or washed away while wood and other combustible materials are commonly burn when in contact with debris and hot gases. Because of his devastating capacity, pyroclastic flows are considered the phenomenon deadliest volcanic, with zero chances of surviving its passage.

In other geological scenarios and at other times in the evolution of Tenerife, have given these pyroclastic flows being one of the greatest dangers associated with the volcanism, as can be evidenced in the ignimbrite deposits present with greater magnitude in the south of the island. These are generated in eruptions highly explosives (Peleanas, Plinianas).

LAVA FLOW FLOW

Lava flows are streams of molten rock coming out of the summit crater of a volcano or the upper part of its flanks. These flows tend to follow the drainages and can travel down slopes up to several tens of kilometres.

The damage produced by a lava flow depends on the advance speed of the lava front, that is, the time available to establish mitigation measures of the risk once the alarm is received. Viscosity, emission rate and topography are the conditioning factors. Especially serious is the situation, when the lava is channels into ravines and/or develops lava tunnels that allow it to cover large distances without cooling and maintaining high mobility far from the center of emission. Speeds of up to 16 km/h have been measured in open channels, while in tunnels reach 100 km/h. Knowledge about the effects of lava flows comes mainly from the study of lava flows from large basaltic volcanoes.

Deaths from lava flows are a rare occurrence and are generally due to imprudence or poisoning from the degassing of the laundry.

Lava flows represent the most common volcanic hazard in the Canary Islands. Depending on the type of eruption and the composition of the magmas, one can speak of lava flows. basaltic and phonolitic flows, however, between them there is a great variety of magmas.

basaltic flows

They are the most frequent, are emitted at high temperatures and behave like a fluid, flowing in favor of the slope. If the emission flow is low, They usually form numerous and thin lava flows that accumulate in the vicinity of the volcano. If the flow is very high and the eruption is prolonged, they can cover very extensive areas, and branch out to reach the coast. The typical thickness of these flows is 1-3 m. They tend to channel themselves through ravines and skirt obstacles. Its elevated temperature causes fires in its path, and the thrust can collapse buildings, as well as cut all roads and pipelines and fill in any depressions.

Its travel speed is generally very low from a few meters to kilometers per hour - in most cases less than the pace of a person, which makes them not very dangerous for the population. During the eruption of the Garachico Mountain in 1706, in the first 12-15 hours, the phase with the highest rate eruption of the eruption (which can be considered typical of basaltic eruptions of that part of Tenerife) the lava flows ran down steep slopes with a speed that did not reach 0.5 km/h. In the case of the Chinyero eruption and judging by In eyewitness descriptions this speed was even lower, around 0.12 Km/h, possibly because the lava flows ran along the axis of the Dorsal, of lesser earring. The speed of the lava flows can be much higher (10-30 km/h) when channeled into ravines, where they frequently form lava channels in the that the lava is thermally insulated, keeping inside it a high temperature and fluency. The danger may be greater on very steep cliffs and slopes, where large balls of incandescent lava can be detached, which grow like those of snow and reaches very high speeds, and if they hit they can explode in very damaging incandescent fragments. The danger is more manageable, since it can

easily predict the route of the castings and plan ahead of time
evacuations.

The relative fluidity of basaltic lavas means that in some cases they do not have a high destructive power on the structures, being frequent to observe buildings completely surrounded by lava, without having suffered structural damage. However, the The high temperature of the lava can cause the building to burn. The experience obtained contemplating the resistance of the structures against the advance of a lava has allowed to design active defenses, through barriers that are easy to build, which may limit certain concentrations of risk. obviously big eruptions cause the total destruction of all protective elements. If he volume of lava emitted is large enough all barriers will be overcome in more or less time or the cost of the defenses will exceed the value of the risk elements. Another solution is to divert the flows through artificial channels towards other areas that present less value.

Applying large jets of water on the lavas, especially when they are very close to the coast, it is possible to cool its front, which thus constitutes a barrier. However, the low thermal conductivity of lavas makes this technique only can be used if the lava front is very fractured, in such a way that it allows get the water inside the laundry and not just spray the surface. another performance important is the reinforcement of the lateral flanks of the castings, to avoid that, with favorable topographical conditions, the partial collapse of the flank may occur, giving rise to a secondary casting that can develop a speed of advance high and affect areas that were believed to be safe.

phonolitic flows

Phonolitic lavas usually have a lower outlet temperature and are more viscous. Consequently, they tend to flow with greater difficulty, running at very low speeds, from a few centimeters to hundreds of meters per hour. tend also to acquire great thicknesses and shorter routes.

On the slopes of steep slopes of Teide and Pico Viejo run without great thicknesses, but when the slope decreases the lava accumulates and advances with fronts of 50-100 meters. Although they are channeled into the ravines, if these are not very

deep can invert the topography, exceeding the channels in its direct course towards the coast.

These flows can cause forest fires and, due to their power, cut roads and pipelines in a lasting way.

Their great slowness of displacement makes them less dangerous for the population. However, on steep slopes there may be collapses of the front of the lava flow, generating high-velocity burning clouds that fall down the slope down and are much more damaging.

STRUCTURAL COLLAPSES

The instability that is produced by a tectonic or weathering phenomenon can produce the movement of part of a volcanic edifice, being able to generate a total or partial collapse of the building. This landslide may be caused by the lateral pressures produced by the rise of magma in the volcanic cone, by the shaking produced by a strong earthquake and/or by the loss of stability of the building Volcanic caused by hydrothermal alteration. The result is the collapse or partial collapse of the volcanic edifice, leaving an amphitheater of variable size, called an avalanche caldera, and forming a debris fan of extension considerable (10-1000 km2). These avalanches cover and/or destroy everything that they find in their path. This phenomenon was the cause of the escarpment of El Golfo, in El Hierro, from the landslides in the valleys of Güímar, Icod de Los Vinos and La Orotava, in Tenerife, and that of Los Llanos de Aridane, in La Palma. In some cases, the collapse It can in turn generate a volcanic eruption.

The lack of information about the stability of volcanic edifices and the local geomorphological processes does not allow us to predict their behavior future to take appropriate preventive measures.

LAHARES

They are currents of volcanic materials transported by water through the natural slope of the land, the characteristics are variable depending on its origin, but they are generally flows with an enormous mechanical force that destroys it everything in its time.

Lahars can originate in various ways:

- Not directly related to the volcanic phenomenon, but rather It deals with the entrainment of loose pyroclastic materials (result of a recent or historical eruption) due to rainfall intensity or the failure of walls of water reservoirs.
- Related to the seismic action or the expansion of the ground by action of the eruption associated with lakes, rivers, water reservoirs (dams, rafts or tanks) etc.
- Those originated by the direct action of lava on a body of water (dams, rafts or reservoirs, etc.).

The weather conditions of the islands mean that this is taken into account. danger mainly associated with sectors that due to their geomorphology are unstable and could fail at a certain moment, due to direct or even post-eruptive effects as a consequence of the accumulation of pyroclasts in the bed of the ravines.

VOLCANIC GASES

It is normal that in active volcanic areas there is a continuous emission of volcanic gases. Significant variations depend largely on barometric variations. The main gaseous emissions in the Canary Islands are mostly water vapor and, to a lesser extent, carbon dioxide CO2, methane CH4, hydrogen H2, nitrogen N2, and hydrogen sulfide H2S.

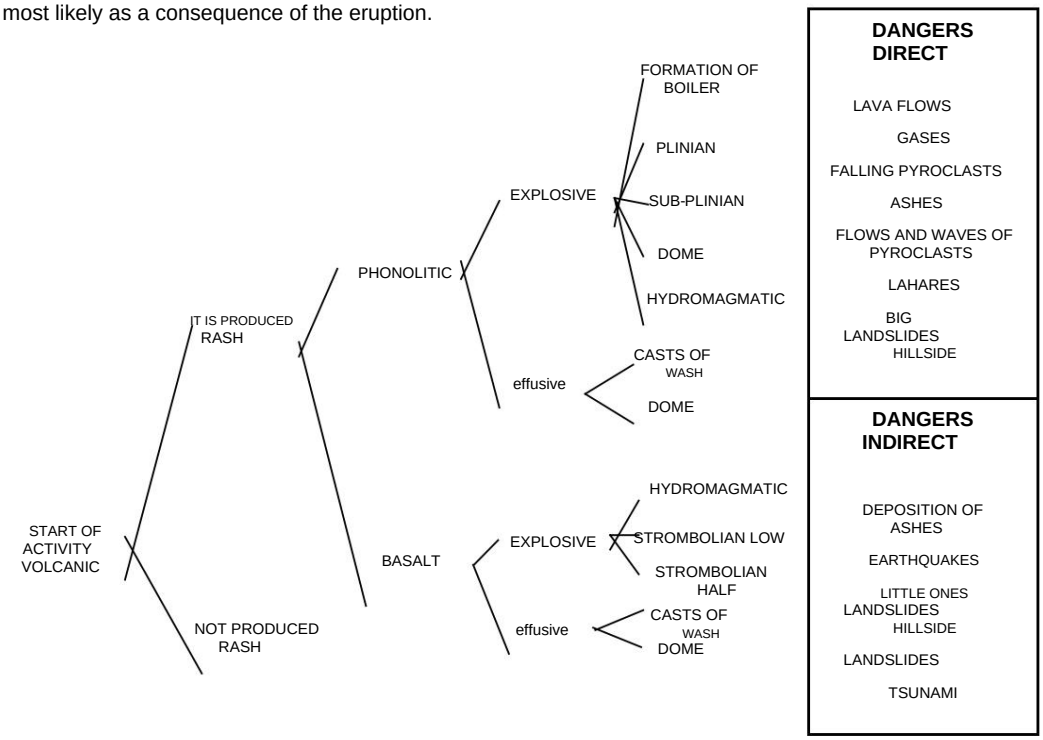
Volcanic gases, important as a hazard in volcanoes in other regions, hardly constitute a threat to the population even during eruptions, except in a very limited environment in its immediate vicinity.

Special care is required for CO2, which, being heavier than air, tends to fill cavities and depressions, displacing breathable air and being able to cause victims by suffocation, mainly in the vicinity of the lavas when they release the gases they have in their matrix.

1.4.- EVENT TREES

Each eruptive cycle can present itself with its own behavior and that will generate specific dangers to geological, geomorphological, environmental and even social.

In this section we will refer to the strictly physical as elements of the risk analysis, so that, from that point, adjustments are made to the conditions of the territory and the populated centers it houses. An approximation The initial phase entails the elaboration of the event tree of the specific case based on the indicators of the volcanic surveillance system in which possible events are indicated most likely as a consequence of the eruption.



The hazard levels exposed in the tree will have a potential of generation of direct or indirect dangers that will be greater to the extent that its magnitude is greater, for this a scale of values has been established based on of past eruptive activity, for which there are documents that provide data that allow us to categorize by levels of explosiveness, then shows the following table (Volcanic Explosivity Index VEI):

VEI	Description General	height of the Column Eruptive (in km)	Volume (in m^3)	Description qualitative	Classification
0	Non-explosive	<0.1	<104	effusive	Hawaiian
1	Small	0.1-1	<106	effusive/ Slightly explosive	Hawaiian/ strombolian
2	moderate	1-5	<107	explosive	Strombolian/ Vulcanian
3	moderate to Big	3-15	<108	explosive/ severe	Vulcanian/ subplinian
4	Big	10-25	<109	explosive/ cataclysmic	subplinian/ plinian
5	Very Big	>25	<1010	cataclysmic/ paroxysmal	plinian
6		>25	<1011	Paroxysmal/ Colossal	Plinian/ ultraplinian
7		>25	<1012	Colossal/ super colossal	ultraplinian
8		>25	>1012	Colossal/ megacolossal	ultraplinian

Adapted from Newhall, CG & Self, S. (1982)

ANNEX 7

ANNEX 7.- SELF-PROTECTION MEASURES AGAINST VOLCANIC ASH FALLS

eye protection

ÿ Wear goggles with goggles such as side shields - not sunglasses - when find in outdoor environments. You can use the protectors that recommend for cyclists, motorcyclists or swimmers.

ÿ If you have been exposed to ash and have a sensation of a foreign body in your eyes, rinse with plenty of water. It is preferable to use potable and boiled water. Wash your hands before the procedure. Do not use eye drops or drops ophthalmological.

ÿ If the sensation of a foreign body persists after washing, it is necessary to medical attention.

ÿ Special care must be taken:

- ÿ Users of contact lenses, since they can introduce particles of ash between the lens and the cornea causing lesions particularly severe and represent a greater risk of infections. It is recommended do not wear contact lenses of any kind while there is ash in the atmosphere.
- ÿ People with recent eye surgery: in addition to increasing the ocular inflammation, volcanic ash can cause erosions corneas, which increase the risk of infection in the eyes with surgery recent eye. Those who have had laser vision correction in the previous weeks.
- ÿ Allergies: they are more likely to develop dermatitis of the eyelids In case of excessive itching, discomfort with light or tearing, they should consult an ophthalmologist.

Skin and scalp protection

ÿ Cover yourself with a hat, scarf or cap to avoid contact with the ash with the scalp.

ÿ Wear clothing that covers as much of your body as possible if you are going to be exposed to external environment.

ÿ If ash has become impregnated on the skin, remove clothing and wash with plenty of water. If you experience burning or reddening of the skin, see your doctor.

Respiratory system protection

ÿ In any case, the best protection is to remain in covered environments. To reduce the entry of ash through small openings or through the door and window frames, check that they are closed and place a cloth wet - this will trap dust particles.

ÿ In homes with gas installations without an exhaust tube to the outside, it is necessary to take precautions to avoid CO2 poisoning , due to combustion home gas.

ÿ If you must move outside your home, use the protective measures for eyes and skin.

ÿ Have commercial masks available to prevent the inhalation of airborne particles. ash. Use a handkerchief or piece of cloth to cover your nose and mouth.

ÿ Must follow all recommendations issued.

Accident prevention

ÿ Obey the prevention regulations issued by the authorities.

ÿ If external cleaning of ash accumulated on roofs has been recommended, yards and streets, use appropriate measures to protect yourself from ash.

ÿ Cleaning roofs involves serious risks in case of falls, it can even cause death. Find out and adopt all the rules of safety, but preferably contact personnel with experience in work on scaffolding and roofs. Follow all recommendations for cleaning and ash removal.

ÿ Refrain from driving if visibility is limited by ash fallout.

ÿ If ash fallout has stopped and is accumulating on the streets, drive Drive slowly and give priority to emergency and safety vehicles.

Effects on agriculture

The effects of ashfall will depend on the type of crop, the development of the same and the thickness (mm) of the fall.

>2000	All vegetation is destroyed
1500	Most of the vegetation dies
1000	Certain crops may be partially recoverable
200	destroyed paddy fields
150	destroyed coffee plantations
100	Palms and branches broken by the weight of the ash
fifty	Destroyed banana trees
40	50% losses in legumes, 15-30% in wheat, vegetables, etc.
30	The fruits can be rendered useless by the layer of ash
25	Damage to sugar cane, potatoes, etc.
twenty	Considerable damage to oranges, tangerines, and other fruits and vegetables.
fifteen	Loss of alfalfa, of pastures.
10	Damage to apples, cotton, bananas, tobacco and vegetables. 20-40% of the crop is damaged
<10	Less damage to grass, wheat and corn.

Effects caused in electrical power systems

PROBLEM	EFFECTS CAUSED/MEASURES
Accumulation of dry ash in distribution systems. Especially in insulators.	Clean with air jet and brushes. Winds over 40 km/h remove up to 95% of the ash as long as it remains dry.
Accumulation of wet ash. The conditions Weather conditions during ashfall govern ash adherence to surfaces and its electrical conductivity. An ash layer of only 3-6 mm is equivalent to a salt deposit of 0.3-0.6 mg/cm2, which in the IEEE standard corresponds to serious contamination. Significant damage to 115 kV lines. EPOXY resin insulators are especially vulnerable.	Heavy rain removes 2/3 of the deposit. The use of porcelain insulators is recommended in the entire area of possible ash fall. Ash must be carefully cleaned from substation transformers and insulators. In them it is convenient to have a pressurized air jet system.
Large accumulation of ash in the gravel of a substation switchyard causes a significant loss of insulation (100 Sm) making any operation very dangerous.	Cover the ground with a new layer of clean gravel.
Large accumulation of ash (more than 15 cm), especially if it is wet, causes roofs to collapse.	Remove the ash from the roofs. You have to be careful as wet ash is very slippery. Remove the accumulation of ash from the vicinity of the buildings. Fix the ashes to avoid future remobilization by the wind and reduce the dust content of the air.
Trees fall on power lines due to the weight of the ash.	Properly maintain cleanliness around the high voltage line.
Blockages in the filters of the ventilation systems of computers and control systems	In risk areas it is necessary to have an extra number of air filters.
Problems in compressed air systems	Change the filters more frequently.
Overload on transformer fans due to ash buildup	Carefully clean the fan blades. Wet ash is very difficult to remove and often requires thorough cleaning.
Increase in noise induced by high voltage lines (500 kV) reaching values of 39-48 dB	there is no remedy
Immobilized vehicles: blockage in the air, oil or fuel filters. Loss of visibility of the driver due to the fall of ash or its accumulation (wet) on the windshield.	Important reserve of filters. Use a pre-filter system. Change the oil frequently. Do not move the vehicle if it is not for an emergency.
Damage to hydraulic actuators, bearings, switches, etc. Volcanic ash is very abrasive.	Clean and lubricate exposed material frequently.
High content of volcanic dust in the air. Lung problems.	Workers must wear a particle mask. The ash must be stabilized to prevent its remobilization from further damaging the systems.
The fall of the ash causes a great darkness. Sudden and rapid power-up of systems	Radio-tv announcements for the population to save energy.

lighting causes a spike in power demand that overloads the system.	
Strong erosion on the turbine blades of the generators that use gas.	In general, ashfall is exceptional enough not to pose a problem. In areas where ash falls frequently, this type of generator cannot be used.

Effects caused in air transport.

Aircraft are designed to fly in air with a standard atmosphere. When,

As a consequence of a volcanic eruption, an ash cloud is produced.

It is convenient to avoid it, since its consequences can be very harmful.

Volcanic ash affects aircraft in flight in three main ways:

1) Its impact on the turbojet affects the blades, wearing them down as well as
in the combustion chamber, being able to produce the shutdown of the engines with
a substance formed from molten material.

2) On the various impact surfaces at about 900 km/h of cruising flight
of a commercial airplane the surfaces are worn as if it were sandpaper,
contaminates the ventilation system and can cause electrical failure.

3) The sensors can be damaged, which can cause erroneous signals.

Effects caused in the Communications Network of the Canary Islands.

Volcanic eruptions generate ash clouds and clouds of high vapor density
of water. This directly affects especially the transport network (radio links)
because it introduces signal losses that cut the "best link".
To the extent that ring topology is available, these effects can
reduce.

In the presence of this type of cloud it is very important to inform as quickly as possible
about the direction of the wind to whoever operates the network so that the
point where the cut is going to be produced and try to strengthen the opening by means of
modulation change.

Recommendations for the removal of volcanic ash

ÿ Permanently remind the population of the use of protection elements
for skin, eyes, nose and mouth.

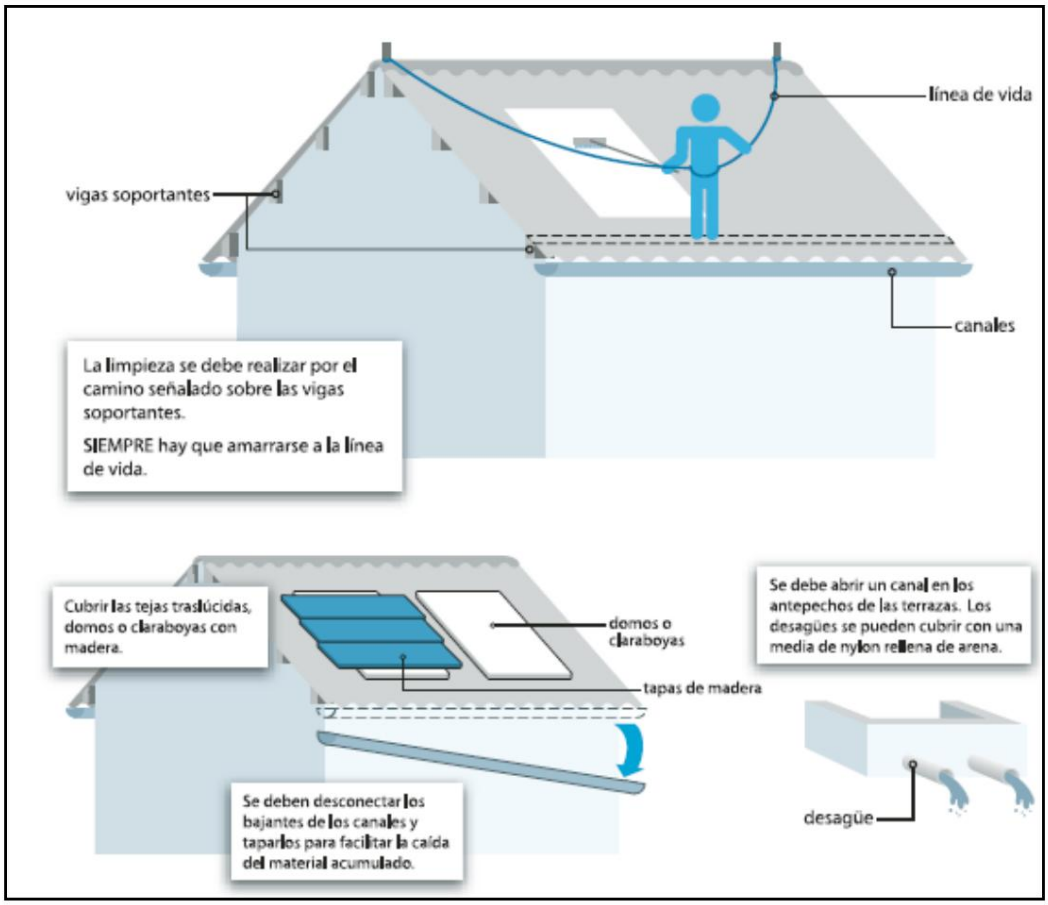
ÿ Have bags or reinforced plastic covers and secure them in their opening to Avoid spilling the ash when doing the cleaning work.

ÿ Never use water, due to the cementation characteristics of this mixture; the formed paste clogs downspouts and sewers, and its weight can collapse the roofs of houses.

ÿ Ash removal should be scheduled over several days, in order to control its continued dispersal and duration in the environment.

ÿ The cleaning of roofs and buildings must be carried out with strict safety regulations, such as the use of anchors, appropriate clothing, helmet and preferably by personal trained in cleaning, construction or repair of structures elevated.

Recommendations for cleaning ash on roofs.



Taken from: ***PAHO - WHO Solid waste management in disaster situations.*** Washington DC 2003. p.6.

Adapted by Diego Silva G.

ANNEX 8

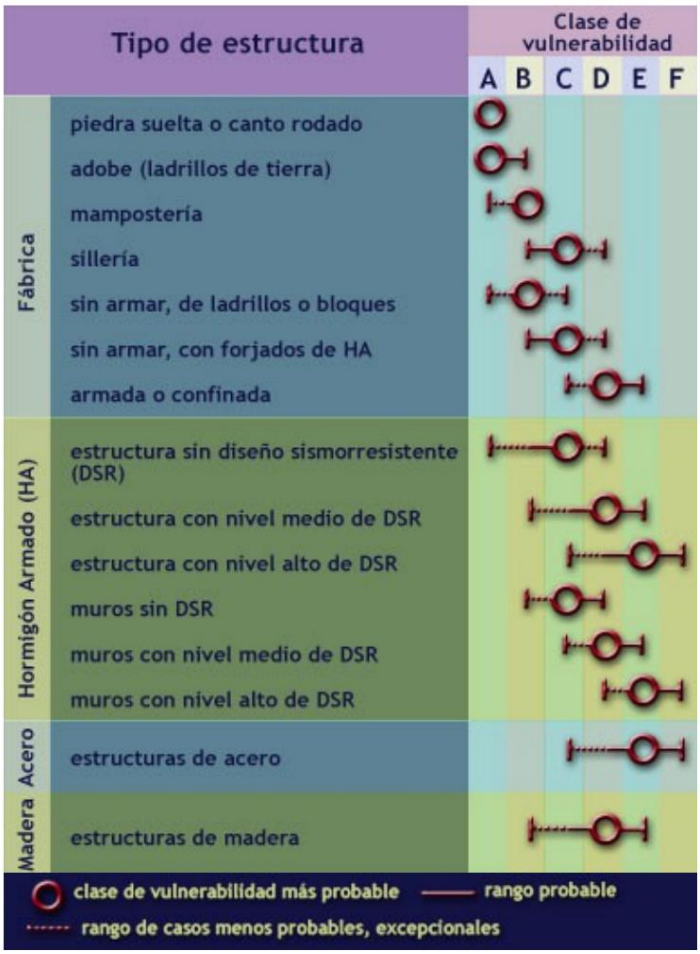
ANNEX 8.- SCALE OF MACROSEISMIC INTENSITY (MACROSEISMIC INTENSITY SCALE)

Classifications used in the EUROPEAN MACROSEISMIC SCALE

MACROSEISMIC SCALE 1998 (EMS-98)

vulnerability table

Differentiation of structures (buildings) in vulnerability classes



The types of factory structures have to be read, for example, factory of masonry, while the types of reinforced concrete (RCS) structures have to be read, for example, HA frames or HA walls.

damage classification

masonry, while the types of reinforced concrete (RCS) structures have to be read, for example, HA frames or HA walls.

damage classification

Note: the way a building deforms under the load of an earthquake

It depends on the type of building. In a generic classification it is possible to distinguish the types of factory buildings and those of reinforced concrete.

Classification of damage in factory buildings

Grade 1: Negligible to light damage

(no structural damage, non-structural damage light). Fissures in very few walls.

Fall only of small pieces of coating.

Fall of loose stones from the upper parts of the buildings in very few cases.

Degree 2: Damage moderate

(light structural damage, non-structural damage moderate).

cracks in many walls.

Fall of fairly large pieces of coating.

Partial collapse of chimneys.

Grade 3: Major to severe damage

(moderate structural damage, no damage severe structural)

Large and widespread cracks in most of the walls

HE let go roof tiles of the roof.

Chimneys broken by the roof line.

Individual non-structural elements are damaged (partitions, gables and roofs).

Grade 4: very serious damage

(serious structural damage, non-structural damage very serious).

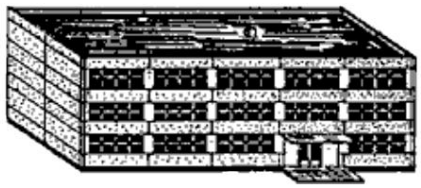
HE seriously damage the walls.

Roofs and slabs are partially damaged.

Grade 5: Destruction (structural damage very serious). Total or near total collapse.

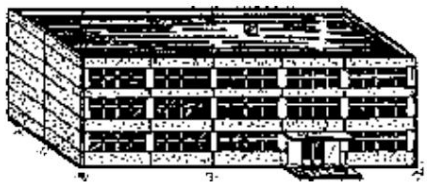
Classification of damage in reinforced concrete buildings

Tier 1: Negligible damage to light (no structural damage, damage light non-structural).



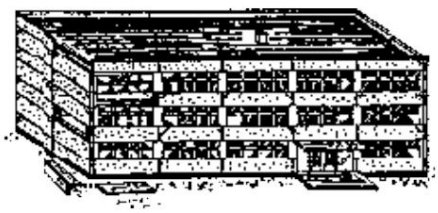
Cracks in the coating porticos or at the base of the walls.
Fissures in partitions and partitions.

Grade 2: Moderate damage (light structural damage, damage not structural moderate)
Cracks in beams and pillars of frames and in walls structural.
Crack in partitions and partitions; drop of brittle plasters and coatings.
Fall of mortar from the joints precast panels.



Grade 3: Major damage to severe (moderate structural damage, serious non-structural damage).

Cracks in pillars and joints beam/column at the base of the frames and at the joints of the coupled walls.
Detachment of plaster concrete, buckling of the reinforcement booster.
Large cracks in partitions and partitions; panels are damaged isolated partitions.



Grade 4: Very serious damage

(severe structural damage, damage not

very serious structural)

Large cracks in elements

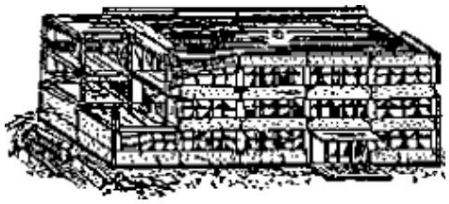
structural with concrete damage

by compression and rupture of reinforcements;

failures in the interlocking of the armor

the beams; tilting of pillars collapse of

some pillars or a high floor.



Degree 5: Destruction

(very serious structural damage)

Collapse of the ground floor or parts

(for example, wings) of the building.

quantity definitions

Quantity terms used in the definition of degrees of intensity

correspond approximately to the following percentages:

Some 5%

Many.....50%

Most.....75%

Definitions of degrees of intensity

Organization of the scale:

- Effects on people.
- Effects on objects and nature (the effects and failures in the terrain

  are dealt with specifically in another section).
- Damage to buildings.

Preliminary remark:

• Effects on people.

• Effects on objects and nature (the effects and failures in the terrain

are detailed with specificity in another section).

• Damage to buildings.

Preliminary remark:

Each degree of intensity may also include the effects of the shaking of the lower degrees of intensity, although such effects are not mentioned explicitly.

I - No sense

• Not felt, not even in the most favorable conditions.

• No effect.

• No damage.

II - Barely felt

- The earthquake is felt by some inside buildings. people at rest they feel a rocking or slight tremor.

• Hanging objects oscillate slightly.

• No damage.

III - Weak

- The earthquake is felt by some inside buildings. people at rest they feel a rocking or slight tremor.

• Hanging objects oscillate slightly.

• No damage.

IV - Widely Observed

- The earthquake is felt inside the buildings by many and only by very few in the outside. Some people wake up. The vibration level is not scary. The vibration is moderate. Observers feel a slight tremor or sway of the building, room or bed, chair, etc.

• Knocking of dishes, glassware, windows and doors. Hanging objects oscillate. In some cases light furniture shakes visibly. In some cases clicks of the carpentry.

• Damage to buildings.

V - Strong

• Knocking of dishes, glassware, windows and doors. Hanging objects oscillate.
In some cases light furniture shakes visibly. In some cases
clicks of the carpentry.

• Damage to buildings.

V - Strong

• The earthquake is felt inside the buildings by the majority and by some in the
abroad. Some people get scared and run outside. They wake up many of
sleeping people. Observers feel a strong jolt or
wobbling of the entire building, room or furniture.

• Hanging objects oscillate considerably. Dinnerware and glassware collide
each other. Small, unstable and/or poorly supported objects can move or
fall. Doors and windows open or close suddenly. In some cases it
break the window panes. Liquids oscillate and can spill from
fully filled containers. Animals inside buildings can be disturbed.

• Grade 1 damage in some buildings of vulnerability classes A and B.

VI - Slightly harmful

• Felt by most inside buildings and by many outside. Some
people lose balance. Many get scared and run outside.

• Small objects of ordinary stability may fall and furniture may
displace. In some cases, plates and glasses can be broken. They can scare
pets (even outdoors).

• Grade 1 damage occurs in many buildings with vulnerability classes A and
B; some of classes A and B suffer damage of degree 2; some class C take damage
grade 1.

VII - Harmful

• Most people get scared and try to run out of buildings. For
Many find it difficult to stand, especially on higher floors.

• Furniture moves and unstable furniture can tip over. great fall
number of items on the shelves Water splashes from containers, tanks and
ponds.

• Many vulnerability class A buildings suffer grade 3 damage; some of
grade 4.

• Many vulnerability class B buildings suffer grade 2 damage; some of
3rd grade.

• Some vulnerability class C buildings present grade 2 damage.

• Some buildings of vulnerability class D present damage of degree 1

VIII - Seriously harmful

• Many people find it difficult to stay on their feet, even outside of buildings.

• Furniture can tip over. Objects such as televisions, machines fall to the ground
to write etc Occasionally headstones may shift, rotate, or tip over. In
very soft soil undulations can be seen.

• Many vulnerability class A buildings suffer grade 4 damage; some of
grade 5.

• Many vulnerability class B buildings suffer grade 3 damage; some of
grade 4.

• Many vulnerability class C buildings suffer grade 2 damage; some of
3rd grade.

• Some buildings of vulnerability class D have grade 2 damage.

IX - Destroyer

• General panic. People can be abruptly thrown to the ground.

• Many monuments and columns fall or rotate. On soft ground they look
undulations.

• Many vulnerability class A buildings have grade 5 damage.

• Many vulnerability class B buildings suffer grade 4 damage; some of
grade 5.

• Many vulnerability class C buildings suffer grade 3 damage; some of
grade 4.

• Many vulnerability class D buildings suffer grade 2 damage; some of
3rd grade.

• Some buildings of vulnerability class E have grade 2 damage.

X - Very destructive

• The majority of vulnerability class A buildings have grade 5 damage.

• Many vulnerability class B buildings suffer grade 5 damage.

• Many vulnerability class C buildings suffer grade 4 damage; some of grade 5.

• Many vulnerability class D buildings suffer grade 3 damage; some of grade 4.

• Many vulnerability class E buildings suffer grade 2 damage; some of 3rd grade.

• Some buildings of vulnerability class F present damage of degree 2.

XI - Ravager

• Most vulnerability class B buildings have grade 5 damage.

• Most of the buildings of vulnerability class C suffer damage of degree 4; many grade 5.

• Many vulnerability class D buildings suffer grade 4 damage; some of grade 5.

• Many vulnerability class E buildings suffer grade 3 damage; some of grade 4.

• Many vulnerability class F buildings suffer grade 2 damage; some of 3rd grade.

XII - Completely Devastating

All buildings of vulnerability classes A, B and practically all those of class C. Most of the buildings of vulnerability class D, E and F. The effects of the earthquake reach the maximum conceivable effects.

ANNEX 9

ANNEX 9.- KEY PERSONNEL ACTION SHEETS

Below are the performance sheets for key management personnel,
coordination, evaluation and intervention of the emergency, in this sense once
approved the PEVOLCA, those responsible for the administrations or affiliated bodies
to the Plan will send to CECOES 1-1-2 the information on those responsible and their substitutes,
part of it, because it is private, will not appear published with the Plan, but it will be
provided to other key personnel for the purposes of facilitating communications,
It will be updated every time a change occurs in said data and
sent to CECOES 1-1-2 by those responsible.

As a consequence of the development of the Action Plans of the Administration
General of the State, of the Cabildo and of the Municipalities will develop the records of
performance of its key personnel and will be sent to the General Directorate of Security and
Emergencies to be included in the Plan's database.

All performances and functions listed below are for
situations not declared of national interest. Likewise, all entities and
bodies belonging to the General State Administration will be activated according to the
Resolution of July 4, 1994 of the Secretary of State for the Interior.

DIRECTOR OF THE PLAN

HEADLINE	Minister of Territorial Policy, Sustainability and Security
ALTERNATE	General Director of Security and Emergencies
INSTEAD OF CONCENTRATION	CECOES 1-1-2 CECOPIN or others to designation in non-capital islands
LOCATION	Plaza. of Human Rights, nº 22 Edf. Usos Múltiples I, 2nd Floor 35071 Las Palmas de Gran Canaria Phone: 928 30 60 00/01 Fax: 928 30 66 98
	Avda. José Manuel Guimerá, nº 10 Multipurpose Building II, 2nd Floor 38071 Santa Cruz de Tenerife Phone: 922 47 65 00 Fax: 922 47 67 93
	Emergency location: 24 h CECOES 1-1-2
DIRECTS	Directs all members of the plan
FUNCTIONS	¡ Maximum Authority of the Plan. ¡ Activate the Plan and determine with the Intervention Group the most convenient strategy to control the emergency. ¡ It constitutes the organizational structure of PEVOLCA, designating the members of the plan, the Advisory Committee, the Information Cabinet, the Head of the Advanced Command Post and the Action Groups. ¡ Establish the CECOES1-1-2 as CECOP and CECOPI in the event of a national emergency ¡ Coordinate with local authorities (Mayors/Mayors and President of the Cabildo) and establish the guidelines and management of means and resources. ¡ Determine, together with the Technical Director, the protection actions and inform the affected population, as well as their form of dissemination and the official information to be provided to the social media and to the different administrations. ¡ Assess situations with support bodies. ¡ Request the means and resources of municipal, regional ownership or national, public or private ownership, assigned or not to the Plan. ¡ Declare the change in the condition of the emergency, elevating it from level to the National or ending the emergency deactivating the Plan.

TECHNICAL DIRECTOR

HEADLINE	Head of the DGSE Service active in the affected Province.
ALTERNATE.	Person in charge designated by the Technical Director.
UNTIL YOUR ARRIVAL Head of the Intervention Group	
INSTEAD OF CONCENTRATION	to define
LOCATION	C/ León y Castillo, nº 431 Ed. Urbis, 1st Floor 35071 Las Palmas de Gran Canaria Phone: 928 30 71 00 Fax: 928 30 71 03
	Avda. Bravo Murillo, nº 5 Edf. Mapfre, 2nd floor 38071 Santa Cruz de Tenerife Phone: 922 47 01 00 Fax: 922 47 01 03
	Emergency location: 24 h CECOES 1-1-2
DIRECTS	Leads all Action Groups
FUNCTIONS	ÿ Highest Authority at operational level. ÿ Direct the emergency at the scene of the accident with the support of the Municipal Operations Coordinator or the Cabildo. ÿ Defines location of the PMA Advanced Command Post and constitutes it with the rest of the Action Groups. ÿ Evaluate the type of accident proposing the activation phase and determine the Intervention and Alert Zones, as well as the access controls and beaconing of these. ÿ Coordinate with the different natural commands of each Action Group, the actions to be carried out. ÿ It communicates with the Plan Management through the CECOES. ÿ Request, through the CECOES, the participation of air resources, in case of need, and the use of means and resources. ÿ Coordination with CECOPAL or CECOPIN for the use of the means and resources of the municipality. ÿ Give the order, depending on the urgency in decision-making, to evacuate or confine the affected population, if this measure is considered necessary. ÿ Assess situations with support bodies

ADVISORY COMMITTEE

DEPUTY MINISTER FOR THE ENVIRONMENT OF THE GOVERNMENT OF THE CANARY ISLANDS

HEADLINE	Deputy Minister for the Environment
ALTERNATE	General Director of Security and Emergencies
INSTEAD OF CONCENTRATION	CECOES 1-1-2 CECOPIN or others to designation in non-capital islands
LOCATION OF RESPONSIBLE AND TECHNICIANS	C/ Prof. Agustín Millares Carló, nº 18 Multipurpose Building II, 5th Floor 35071 Las Palmas de Gran Canaria Phone: 928 30 65 50 Fax: 928 30 65 75
	Avda. de Anaga, nº 35 Multiple Use Building I, 6th Floor 38071 Santa Cruz de Tenerife Phone: 922 47 50 00 Fax: 922 47 54 58
	Emergency location: CECOES 1-1-2
DIRECTS	Officials and technicians of the departments of the Ministry of Territorial Policy, Sustainability and Security
FUNCTIONS	ÿ Technical support actions in terms of evaluation and control of the effect of the consequences on the environment. ÿ Facilitate all environmental protection interventions defined by the Ministry of Territorial Policy, Sustainability and Security. ÿ Evaluation of the environmental sanitation conditions of the areas affected. ÿ Determine the technicians who will work in the Quality units Atmospheric and Water of the Risk Control Subgroup.

ADVISORY COMMITTEE

DIRECTOR OF THE CANARY HEALTH SERVICE

HEADLINE	Director of the Canary Islands Health Service
ALTERNATE	Island Director of the corresponding Health Area
INSTEAD OF CONCENTRATION	CECOES 1-1-2 CECOPIN or others to designation in non-capital islands
LOCATION OF RESPONSIBLE AND TECHNICIANS	Plaza Dr. Juan Bosch Millares, nº 1 35004 Las Palmas de Gran Canaria Phone: 928 30 81 45 Fax: 928 30 81 50
	C/ Pérez de Rozas, nº 5 4th floor 38071 Santa Cruz de Tenerife Phone: 922 47 57 04 Fax: 922 47 57 34
	Emergency location: CECOES 1-1-2
DIRECTS	Officials and technicians of the Canary Islands Health Service
FUNCTIONS	ÿ Technical support actions in the field of Health and Health Care of the Autonomous Community. ÿ Support decision-making in the field of Health and Health Care. ÿ Support from the Health Area Management, through the hospital service. ÿ Process extraordinary health means and resources Coordination of ÿ private clinic support. ÿ Definition of hygiene strategy and support for refugee care. ÿ Assess with the Head of the Health Group the general conditions of the performances. ÿ Establishes contact with the Head of the Risk Control Subgroup related to the levels of Atmospheric and Water contamination.

ADVISORY COMMITTEE

REPRESENTATIVE OF THE GENERAL STATE ADMINISTRATION

HEADLINE	Delegate of the Government in the Canary Islands
ALTERNATE	Island Director
INSTEAD OF CONCENTRATION	CECOES 1-1-2 CECOPIN or others by designation in non-capital islands
LOCATION	Government Sub-delegation in Las Palmas Plaza de la Feria, 24 35003 Las Palmas de Gran Canaria Tel. 928 999 000 - Fax 928 36 39 94
	Government Sub-delegation in Santa Cruz de Tenerife Méndez Núñez, 9 38003 Santa Cruz de Tenerife Tel. 922 999.000 Fax 922 28 26 00
	Dacio Darias Avenue, 103 38900 Valverde - El Hierro Tel.
	Plaza de las Américas, 2 38800 San Sebastián de La Gomera Tel. 922 99 70 01/02 Fax 922 14 13 56 Blas Cabrera Felipe, 6 35500
	Arrecife - Lanzarote Tel.
	Avenida Marítima, 2 38700 Santa Cruz de La Palma Tel. 922 99 93 81 Fax 922 41 64 43
DIRECTS	Dependent organizations and State Security Forces and Bodies.
FUNCTIONS	ÿ Media support actions and state resources. ÿ Coordination support security forces – National Police Corps – Civil Guard – Military. ÿ Support Coordination of Maritime Authorities and Maritime Rescue, especially in events that occur on the docks or on the coast with a probability of contamination or affectation of people. ÿ Assess with the IGN the effectiveness of the Volcanic Surveillance System. ÿ Ensures continuity and operation of the Scientific Evaluation and Monitoring Committee in the normal phase.

ADVISORY COMMITTEE

REPRESENTATIVES OF THE COUNCIL

HEADLINE	President of the Cabildo or person to whom he delegates
ALTERNATE	Designated person
INSTEAD OF CONCENTRATION	CECOES 1-1-2 CECOPIN or others to designation in non-capital islands CECOPAL
LOCATION OF RESPONSIBLE	Media and resources catalog
DIRECTS	Civil Protection Cabildo, Ministry responsible for the Environment, Social Services, Highway Maintenance and Operation Service, and other departments attached to the Plan.
FUNCTIONS	Ensure the general Logistics of the Plan, the continuity of the Essential Services, the Water Supplies through the Island Councils, the temporary and permanent accommodation of those affected. ÿ Support to the Island Operations Coordinator. ÿ Support to the Groups and Subgroups under responsibility: o Logistics Group o Rehabilitation of Essential Services Group o Derived Risks Subgroup o Social Services Subgroup ÿ Together with the affected municipalities, coordinate the rehabilitation of affected areas and essential services.

ADVISORY COMMITTEE

REPRESENTATIVE OF THE AFFECTED MUNICIPALITIES

HEADLINE	Mayor/Mayoress or person to whom he delegates
ALTERNATE	Designated person
INSTEAD OF CONCENTRATION	CECOES 1-1-2 CECOPIN or others to designation in non-capital islands CECOPAL
LOCATION OF RESPONSIBLE	Media and resources catalog
DIRECTS	Civil Protection of the City Council, Local Police and other means and resources of the PEMU
FUNCTIONS	ý Support actions, security and logistics. ÿ Support coordination of Local Police forces and Civil Protection. ÿ Support logistical coordination of probable concentration and shelter sites, organization of the identification of those affected and their temporary location. ÿ Support the application of protection measures for the population. ý Coordinate supplies such as catering and transportation. ý Together with the Cabildo, coordinate the rehabilitation of affected areas and essential services.

ADVISORY COMMITTEE

DIRECTOR OF THE CECOES

HEADLINE	Director of CECOES
ALTERNATE.	Head of the Operating Room of CECOES 1-1-2
INSTEAD OF CONCENTRATION	CECOES 1-1-2 CECOPIN or others to designation in non-capital islands
LOCATION	C/ León y Castillo, 431 - 5th floor 35071 Las Palmas de Gran Canaria Phone: 928 492 112 Fax: 928 227 112
	Avda. Bravo Murillo, 5 – 5th floor 38071 Santa Cruz de Tenerife Phone: 922 532 112 Fax: 922 545 112
DIRECTS	The CECOES 1- 1-2 (CECOP)
FUNCTIONS	ÿ Verify the actions of installing the CECOP and facilities to establish the Crisis Room. ÿ Guarantee the operational coordination of the emergency. ÿ Provide the competent security body with the information analyzed on the evolution of incidents and the activity of those involved. ÿ Articulate the necessary measures in order to put into practice the guidelines and service orders of the management body. ÿ Advise the management of the plan in the functions assigned to the CECOES. ÿ Ensures, together with the person in charge of communications of the General Directorate of Security and Emergencies, the actions that will be carried out by the Communications Unit of the Intervention Logistics Subgroup.

TECHNICAL
ADVISORY COMMITTEE SPECIALISTS IN EMERGENCY PLANS ASSIGNED TO THE DGSE

HEADLINE	Emergency plan technicians attached to the DGSE.
ALTERNATE.	Technicians
INSTEAD OF CONCENTRATION	CECOES 1-1-2 on the affected island and at the accident site
LOCATION	C/ León y Castillo, 431-1st floor 35071 Las Palmas de Gran Canaria Phone: 928 307 100 Fax: 928 307 103
	Avda. Bravo Murillo, 5 – 2nd floor 38071 Santa Cruz de Tenerife Phone: 922 470 100 Fax: 922 470 103
DIRECTS	Field personnel for activities specific to their specialty.
FUNCTIONS	ÿ Evaluations of scenarios and recommendations for the protection of the population based on information. ÿ Computer application according to scenarios. ÿ Integration of the information generated by the Plan throughout the entire emergency. ÿ Technical support to the Advisory Committee.

INFORMATION CABINET

CHIEF OF THE CABINET

HEADLINE	Official Spokesperson of the Government of the Canary Islands
ALTERNATE	Designated by the Spokesperson
INSTEAD OF CONCENTRATION	CECOES of the affected island.
LOCATION OF RESPONSIBLE	Avda. José Manuel Guimerá, nº 5 38071 Santa Cruz de Tenerife Phone: 922 47 75 00 Fax: 922 47 75 57
	Plaza. Dr. Rafael O'Shanahan, #1 35071 Las Palmas de Gran Canaria Phone: 928 45 21 00 Fax: 928 45 21 44
DIRECTS	ÿ Head of the Ministry of Press with competences in matters of Civil Protection and Emergency Care. ÿ Press Officer of the Government Delegation in the Canary Islands. ÿ CECOES press officer. ÿ Press officer of the affected City Council. ÿ Press officer of the affected Cabildo. ÿ Official representatives of the European Union on information issues.
FUNCTIONS	ÿ Defines the information policy with the Director of PEVOLCA. ÿ Disseminate the guidelines and recommendations established by the Director of the Plan. ÿ Centralize, coordinate and prepare general information on the emergency and provide it to family members, organizations and the media. ÿ Prepare the intervention of the Authorities at any time of the emergency, to inform public opinion. ÿ Prepare and disseminate notices to the population so that protection measures can be adopted, if necessary. For the execution of these notices, the means available to the Security and Logistics groups will be supported.

Note. - Each Island and Municipal Responsible must inform the Information Office about the networks of information and attention to the citizen established by said administrations.

EMERGENCY COORDINATION
MULTI-SECTOR COORDINATOR OF CECOES 1-1-2

HEADLINE	Multisectoral coordinator of CECOES 1-1-2
INSTEAD OF CONCENTRATION	CECOES 1-1-2 CECOPIN or others to designation in non-capital islands
DIRECTS	The CECOES 1-1-2 (CECOP)
FUNCTIONS	ÿ Activate the necessary and most appropriate means and resources. ÿ Inform the Director of PEVOLCA of the progress of the operations and transfer the orders of the Director to the Action Groups, through the Advanced Command Post. (WFP). ÿ Activate information services to the public through 012. ÿ Installation in the Advanced Command Post of the necessary communications equipment and ensure communications with all the Action Groups. ÿ Configure the CECOES as CECOP and set up the Crisis Room. ÿ Coordinate and optimize the operating means. ÿ Respond to the demands of external media and resources by the parties involved. ÿ Channel through the CECOES the information to the population based on the guidelines of the Information Office. ÿ Serve as a coordinating link with the different administrations. ÿ Coordinate availability of buildings owned by the Autonomous Community and its associated services. ÿ Make available to the Advanced Command Post updated information about contractors and suppliers of the Autonomous Community. ÿ Prepare the necessary reports and submit them to the DGSE and the Government Delegation

FORWARD COMMAND POST
ISLAND OPERATIONAL COORDINATOR

HEADLINE	Insular Civil Protection Manager
ALTERNATE.	Appointed by the Island Director or President of the Cabildo.
INSTEAD OF CONCENTRATION	PMA Forward Command Post
LOCATION	Media and resources catalog
DIRECTS	Cabildo unit staff
FUNCTIONS	ÿ Full support to the Logistics and Support group. ÿ Integration of insular action plans (PEIN) to PEVOLCA ÿ Make available buildings owned by the Insular, and their associated services. ÿ Make updated information about its contractors and suppliers available to the Advanced Command Post. ÿ Support in the restitution of services. ÿ Support and support to: o Essential Services Rehabilitation Group o Logistics Group.
COMPOSITION OF EQUIPMENT	Cabildo staff and PEIN members.

FORWARD COMMAND POST
MUNICIPAL OPERATIONAL COORDINATOR

HEADLINE	Head of Municipal Civil Protection, Councilor in the matter
ALTERNATE.	Appointed by the Mayor
INSTEAD OF CONCENTRATION	PMA Forward Command Post
LOCATION	Media and resources catalog
DIRECTS	Town Hall Unit Staff
FUNCTIONS	ÿ Full support to the Logistics and Support group. ÿ Integration of municipal action plans (PEMU) to PEVOLCA ÿ Proceed with the mobilization of ordinary and permanent means that exist in the locality. ÿ Make available buildings owned by the Municipality, and their associated services. ÿ Make available to the Advanced Command Post updated information about contractors and suppliers of the Municipality. ÿ Support in the restitution of services. ÿ Support and support to: o Citizen security subgroup in support areas. o Traffic Unit (Security Subgroup in areas of risk) o Municipal services unit (intervention subgroup of derived risks) o Displaced care subgroup (coordination of temporary and long-term shelters) o Social Services Unit
COMPOSITION OF EQUIPMENT	Town Hall staff and PEMU participants integrated into the PEMU Action groups.

FORWARD COMMAND POST
HEAD OF THE INTERVENTION GROUP

HEADLINE	Senior manager of the Prevention, Fire Extinguishing and Rescue Services posted to the scene
ALTERNATE.	Appointed by the Manager of the Island Consortium
INSTEAD OF CONCENTRATION	PMA Forward Command Post
LOCATION OF RESPONSIBLE	Fire station
DIRECTS	Nearby Fire Station, Personnel from the GES Emergency and Rescue Group of the DGSE, and Support from Civil Protection professionals
FUNCTIONS	ÿ Determine the area of intervention and alert ÿ Carry out the functions of search, rescue and salvage of injured people until the arrival of the Health Group. ÿ Assess and report on the status, in real time, of the emergency situation to the Operations Director, as well as the damage produced or that could be produced, and the viability of the operations to be carried out ÿ Monitor latent risks once the emergency is controlled. ÿ Be aware of the protection measures.
COMPOSITION OF EQUIPMENT	ÿ Response organization developed by the fire and rescue services of the affected island. ÿ Intervention subgroup Direct risks. ÿ Intervention subgroup Indirect risks

FORWARD COMMAND POST

HEAD OF THE SANITARY GROUP

HEADLINE	Island Director of the Canary Islands Health Service
ALTERNATE.	Staff of the Canary SUC Emergency Service
INSTEAD OF CONCENTRATION	PMA Forward Command Post
LOCATION	C/ León y Castillo, 431 - 5th floor 35071 Las Palmas de Gran Canaria Phone: 928 492 112 Fax: 928 227 112
	Avda. Bravo Murillo, 5 – 5th floor 38071 Santa Cruz de Tenerife Phone: 922 532 112 Fax: 922 545 112
DIRECTS	The response of medical and social health personnel
FUNCTIONS	ÿ Attention to accidents and injuries. ÿ Determine organization of relief and care areas with the support of the Logistics Group and their sanitary conditions. ÿ Classification and triage of those possibly affected. ÿ Collect as much information as possible about the health conditions of the victims. ÿ Provide the corresponding preventive service to help those involved in extinction tasks or emergency control. ÿ Be aware of the protection measures defined in each particular scenario.
COMPOSITION OF EQUIPMENT	Response organization developed by the Health Care and Social Services Subgroups.

FORWARD COMMAND POST

HEAD OF THE VOLCANIC SURVEILLANCE GROUP

HEADLINE	Designated by the IGN
ALTERNATE.	IGN technicians or collaborators
INSTEAD OF CONCENTRATION	PMA Forward Command Post Volcanic Surveillance Coordination Center
LOCATION	It will be established in the operations of the IGN.
DIRECTS	Work team made up of personnel from the organizations mentioned below.
FUNCTIONS	ÿ Verify and evaluate emergency risk conditions in the field based on data obtained by the volcanic surveillance network. ÿ Notify the PEVOLCA Directorate through the EMP of the conditions throughout the evolution of the emergency. ÿ Be aware of the protection measures defined for each particular scenario ÿ Guide the Plan Management on the most suitable protection measures at all times, for the population, the environment, assets and the Action Groups ÿ Make verifications prior to the deactivation of the PEVOLCA Plan.
COMPOSITION OF EQUIPMENT	ÿ National Geographic Institute ÿ National Institute of Meteorology ÿ Higher Council for Scientific Research (CSIC) ÿ Technological Institute of Renewable Energies (ITER) ÿ University of La Laguna ÿ University of Las Palmas de Gran Canarias ÿ Volcanic Surveillance Subgroup ÿ Risk Control Subgroup ÿ Other institutions

FORWARD COMMAND POST
HEAD OF THE SECURITY GROUP

HEADLINE	Appointed by the Director of the Plan.
ALTERNATE	Senior member of the Civil Guard
Until your arrival	Civil Guard or Local Police (according to territorial powers) at the place of emergency
INSTEAD OF CONCENTRATION	PMA Forward Command Post
LOCATION	Catalog of means and resources of the CECOES 1-1-2
DIRECTS	In coordination with their natural managers to the Local Police, National Police Corps and Civil Guard.
FUNCTIONS	ÿ Assess and report on the level of security of the affected population, as well as the operational groups to the Director of the Plan. ÿ Control traffic for evacuation, in cases and places where, as a consequence of the emergency, a considerable increase in circulation is expected. ÿ Beaconing the area of intervention, controlling access to the area of operations and closing access to the alert area for unauthorized personnel. ÿ Guarantee citizen security and guard the assets of the area, especially in cases of evacuation. ÿ Maintain road networks in expeditious conditions for use during the emergency (deteriorated sections, alternative routes). ÿ Support the dissemination of notices to the population. ÿ Guarantee citizen security. ÿ Collaborate with the municipal authorities in the evacuation of the population. ÿ Take control in the identification of affected people.
COMPOSITION OF EQUIPMENT	ÿ Local Police, Civil Guard and National Police Corps. ÿ Citizen security subgroup in risk areas. ÿ Citizen security subgroup in evacuated areas. ÿ Citizen security subgroup in support areas.

FORWARD COMMAND POST

HEAD OF THE INFRASTRUCTURE AND LOGISTICS GROUP

HEADLINE	Appointed by the Director of the Plan among the specialized technicians of the Cabildo or the affected municipalities.
ALTERNATE.	
INSTEAD OF CONCENTRATION	PMA Forward Command Post
LOCATION	Catalog of means and resources of the CECOES 1-1-2
DIRECTS	Staff from the Government of the Canary Islands, Cabildo, Town Halls, Red Cross, Social Services staff from the different administrations. and Volunteering
FUNCTIONS	ÿ Implementation of the technical elements necessary for the WFP communications support. CECOES ÿ Supply, transportation, evacuation and shelter ÿ Together with the Security Group, adopt measures to protect the population ÿ Organization of camps, with the support of the Health Group and Security ÿ Support the dissemination of warnings to the population ÿ Evacuation of the affected population and its shelter ÿ Rehabilitation of essential services. ÿ Provision of all the necessary equipment and supplies for firefighting tasks and all those that are a consequence of its evolution. ÿ Mobilization of heavy machinery. ÿ Be aware of the protection measures defined in the response guide for each particular scenario ÿ Coordinate the participation of Volunteer Associations.
COMPOSITION OF EQUIPMENT	ÿ Personnel from the various administrations attached to the Group. ÿ Displaced care subgroup ÿ Housing infrastructure subgroup ÿ Intervention logistics subgroup

FORWARD COMMAND POST
HEAD OF THE ESSENTIAL SERVICES GROUP

HEADLINE	Appointed by the Director of the Plan
ALTERNATE.	
INSTEAD OF CONCENTRATION	PMA Forward Command Post
LOCATION	Catalog of means and resources of the CECOES 1-1-2
DIRECTS	Staff of the Government of the Canary Islands, Cabildo, Town Halls, Staff of the agencies and companies responsible for Essential Services.
FUNCTIONS	ÿ Integration of the actions of the different managers of the Units of Action of each Essential Service. ÿ Organize the protection strategy against possible failures in the services taking into account the scenarios provided by the Plan Management. ÿ Allocate the necessary means and resources to restore possible damages that may occur during the emergency. Establishing the priorities that are determined, especially those critical facilities such as: Hospitals and specialized care centers; collection, distribution and refrigeration of food; coordination centers; telephone stations; ports and airports etc. ÿ Coordinate the actions required in order to support the needs of the intervention groups. ÿ Coordinate the actions required in order to restore the services of municipalities at risk and shelter.
COMPOSITION OF EQUIPMENT	ÿ Personnel from the various administrations attached to the Group. ÿ Electricity Subgroup ÿ Water Subgroup ÿ Telephony Subgroup ÿ Fuel Subgroup

ANNEX 10

ANNEX 10.- INFORMATION SHEETS ON VULNERABLE ELEMENTS

The Vulnerable Elements catalog is a data file that contains all the information possible information related to each of the possible vulnerable elements exposed to the phenomenon of volcanic eruptions: population, houses, roads and other infrastructure elements.

Due to the type of data included in this annex, the information in paper format and will only be available in the coordination rooms and in database format.

The information structure of some templates for data sheets is attached below. vulnerable elements, as an example.

POPULATION CORE S-1

NAME OF THE NUCLEUS OR NEIGHBORHOOD:	
ZONES	**CODE:**
NUMBER OF APPROXIMATE PEOPLE	**MUNICIPALITY:**
SHELTER IN CASE OF EVACUATION:	**MEETING POINT:**
OTHER DATA OF INTEREST: **ELEMENTS OF INTEREST:**	**PHOTO**

EDUCATIONAL CENTERS- S-2

NAME:		
OWNERSHIP:	**CODE:**	
ADDRESS:	**ZIP:**	
NEIGHBORHOOD:	**MUNICIPALITY:**	
COORDINATES:	**FAX SCHEDULE:**	
PHONE:		
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
CONCIERGE OR GUARD:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
NUMBER OF PEOPLE:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO	**EVACUATION MEETING POINT:**	
OTHER DATA OF INTEREST: **LIST OF FAMILY CONTACTS:**	**PHOTO**	

RESIDENCES FOR THE ELDERLY-NURSING CENTERS. S-3

NAME:		
OWNERSHIP:		**CODE:**
ADDRESS:		**ZIP:**
NEIGHBORHOOD:		**MUNICIPALITY:**
COORDINATES:		**FAX SCHEDULE:**
PHONE:		
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
CONCIERGE OR GUARD:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
CAPACITY:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO		**EVACUATION MEETING POINT:**
OTHER DATA OF INTEREST:		**PHOTO**

HOSPITALS -HEALTH CENTERS. S-4

NAME:		
OWNERSHIP:		**CODE:**
ADDRESS:		**ZIP:**
NEIGHBORHOOD:		**MUNICIPALITY:**
COORDINATES:		**FAX SCHEDULE:**
PHONE:		
RESPONSIBLE:		
POST:	**FIXED TFO**	**MOBILE TFO:**
CAPACITY:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO		**EVACUATION MEETING POINT:**
OTHER DATA OF INTEREST:		**PHOTO**

HOTEL ESTABLISHMENTS, APARTMENTS S-5

NAME:		
OWNERSHIP:		**CODE:**
ADDRESS:		**PC:**
NEIGHBORHOOD:		**MUNICIPALITY:**
COORDINATES:		**SCHEDULE**
PHONE:		**FAX:**
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
CAPACITY:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO		**EVACUATION MEETING POINT:**
OTHER DATA OF INTEREST: **KITCHENS CAPACITY:**		**PHOTO**

RECREATIONAL AREAS, SUMMER CAMPS, CAMPING S-6

NAME:		
OWNERSHIP:		**CODE:**
ADDRESS:		**PC:**
		MUNICIPALITY:
COORDINATES:		
PHONE:	**FAX:**	
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
ABILITY:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO		**EVACUATION MEETING POINT:**
OTHER DATA OF INTEREST: **ACTIVITY DATES**		**PHOTO**

PUBLIC SHOWS (Cinemas, theaters, etc.) S-7

NAME:	
OWNERSHIP:	**CODE:**
ADDRESS:	**PC:**
NEIGHBORHOOD:	**MUNICIPALITY:**
COORDINATES:	
PHONE:	**FAX:**

RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
CAPACITY:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO	**EVACUATION MEETING POINT:**	
OTHER DATA OF INTEREST:	**PHOTO**	

POSSIBLE SHELTERS OR COVERED SPORTS FACILITIES S-8

NAME:		
OWNERSHIP:	**CODE:**	
ADDRESS:	**PC:**	
NEIGHBORHOOD:	**MUNICIPALITY:**	
COORDINATES:		
PHONE:	**FAX:**	
RESPONSIBLE:		
ADDRESS: FIXED TFO:	**MOBILE TFO:**	
CAPACITY:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO		
GENERATING SET ÿ YES ÿ NO	**AUTONOMY IN HOURS** **FUEL STORAGE**	
SHOWERS ÿ YES ÿ NO	**MALE NO.** **FEMALE NO.**	
HOUSING CAPACITY **(MIN 5 M2 PER PERSON)**	**PHOTO**	

SHOPPING CENTERS S-9

NAME:		
OWNERSHIP:	**CODE:**	
ADDRESS:	**PC:**	
NEIGHBORHOOD:	**MUNICIPALITY:**	
COORDINATES:	**SCHEDULE**	
PHONE:	**FAX:**	
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
CAPACITY:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO	**EVACUATION MEETING POINT:**	

OTHER DATA OF INTEREST:	**PHOTO**

HISTORICAL-ARTISTIC PROPERTY (Visitable monuments, churches, etc.) S-10

NAME:		
OWNERSHIP:	**CODE:**	
ADDRESS:	**PC:**	
NEIGHBORHOOD:	**MUNICIPALITY:**	
COORDINATES:	**SCHEDULE**	
PHONE:	**FAX:**	
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
CAPACITY:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO	**EVACUATION MEETING POINT:**	
OTHER DATA OF INTEREST:	**PHOTO**	

PUBLIC BUILDINGS, LIBRARIES. OTHERS OF A SOCIAL TYPE S-11

NAME:		
OWNERSHIP:	**CODE:**	
ADDRESS:	**PC:**	
NEIGHBORHOOD:	**MUNICIPALITY:**	
COORDINATES:		
PHONE:	**FAX:**	
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
CAPACITY:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO	**EVACUATION MEETING POINT:**	
OTHER DATA OF INTEREST:	**PHOTO**	

INDUSTRIES, MECHANICAL WORKSHOPS AND COMPANIES WITH T-1 RISK

NAME:		
OWNERSHIP:		**CODE:**
ADDRESS:		**PC:**
NEIGHBORHOOD:		**MUNICIPALITY:**
COORDINATES:		**SCHEDULE**
PHONE:		**FAX:**
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
TEMPLATE:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO		**EVACUATION MEETING POINT:**
OTHER DATA OF INTEREST: **DANGEROUS GOODS HANDLED:** **AMOUNT:**		**PHOTO**

GAS STATIONS T-2

NAME:		
OWNERSHIP:		**CODE:**
ADDRESS:		**PC:**
NEIGHBORHOOD:		**MUNICIPALITY:**
COORDINATES:		
PHONE:		**FAX:**
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
CONCIERGE OR GUARD		
	FIXED TFO:	**MOBILE TFO:**
TEMPLATE:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO		**EVACUATION MEETING POINT:**
STORED PRODUCTS: **QUANTITIES:**		**PHOTO**

BUTANE PROPANE STORES, POINTS OF SALE T-3

NAME:	
OWNERSHIP:	**CODE:**
ADDRESS:	**PC:**

NEIGHBORHOOD:		MUNICIPALITY:
COORDINATES:		
PHONE:	FAX:	
RESPONSIBLE:		
POST:	FIXED TFO:	MOBILE TFO:
CONCIERGE OR GUARD	FIXED TFO:	MOBILE TFO:
TEMPLATES:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO		EVACUATION MEETING POINT:
STORED QUANTITIES:		PHOTO

PYROTECHNICS T-4

NAME:	
OWNERSHIP:	CODE:
ADDRESS:	PC:
NEIGHBORHOOD:	MUNICIPALITY:
COORDINATES:	
PHONE:	FAX:

RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
CONCIERGE OR GUARD	**FIXED TFO:**	**MOBILE TFO:**
TEMPLATES:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO	**EVACUATION MEETING POINT:**	
PRODUCTS: **STORED QUANTITIES:** **ALTERNATIVE WAREHOUSES:** **POSSIBILITY OF URGENT TRANSPORTATION:**	**PHOTO**	

T-5 DANGEROUS PRODUCTS WAREHOUSES

NAME:		
OWNERSHIP:		**CODE:**
ADDRESS:		**PC:**
NEIGHBORHOOD:		**MUNICIPALITY:**
COORDINATES:		
PHONE:	**FAX:**	
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
CONCIERGE OR GUARD	**FIXED TFO:**	**MOBILE TFO:**
TEMPLATES:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO	**EVACUATION MEETING POINT:**	
PRODUCTS: **STORED QUANTITIES:** **FUELS** **PHYTOSANITARY PRODUCTS** **PESTICIDES, FERTILIZERS** **PAINTS, SOLVENTS** **BUTANE, ACETYLENE CYLINDERS** **OXIGEN BOTTLES** **ALTERNATIVE WAREHOUSES:** **POSSIBILITY OF URGENT TRANSPORTATION:**	**PHOTO**	

ROUTES OF COMMUNICATION T-6

OWNERSHIP:	**CODE:**
ORIGIN:	**DESTINATION:**
NEIGHBORHOODS:	**MUNICIPALITY:**
CLASSIFICATION:	**FLOW:**
PHONE:	**FAX:**
POPULATIONS OF INFLUENCE	**SAFETY COMPETENCE** **G. CIVIL OR LOCAL POLI**
ALTERNATIVE ROUTES	

MAINTENANCE RESPONSIBLE:		
POST:	FIXED TFO:	MOBILE TFO:
OTHER DATA OF INTEREST:	PHOTO	

TELEPHONE NETWORK T-7

OWNERSHIP:		**CODE:**
ORIGIN:		**DESTINATION:**
NEIGHBORHOODS:		**MUNICIPALITY:**
PHONE:		**FAX:**
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
OTHER DATA OF INTEREST: **ZONES AFFECTED IN CASE OF OUTAGE**	**PHOTO**	

T-8 ELECTRICAL NETWORK

OWNERSHIP:		**CODE:**
ORIGIN:		**DESTINATION:**
NEIGHBORHOODS:		**MUNICIPALITY:**
PHONE:		**FAX:**
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
STRESSES:		
OTHER DATA OF INTEREST: **ZONES AFFECTED IN CASE OF OUTAGE**	**PHOTO**	

SUBSTATIONS T-9

NAME:		
OWNERSHIP:		**CODE:**
ADDRESS:		**PC:**
NEIGHBORHOOD:		**MUNICIPALITY:**
COORDINATES:		
SUPPLIED ZONES		
PHONE:	**FAX:**	
RESPONSIBLE:		
POST:	**FIXED TFO:**	**MOBILE TFO:**
TEMPLATE:		
ACCESS BY:		
SELF-PROTECTION PLAN ÿ YES ÿ NO	**EVACUATION MEETING POINT:**	

AREAS AFFECTED IN CASE OF OUTAGE:	PHOTO

TUNNELS T-10

OWNERSHIP:		CODE:
ROAD:		
MUNICIPALITY:		
ORIGIN PK:	END PK:	
NEIGHBORHOODS:		
PHONE:	FAX:	
MAINTENANCE:		
POST:	FIXED TFO:	MOBILE TFO:

OTHER DATA OF INTEREST: SURVEILLANCE CENTER LIGHTNING ROUTES OF ESCAPE CCTV	PHOTO

BRIDGES T-11

OWNERSHIP:		CODE:
ROAD:		
MUNICIPALITY:	ROAD	
ORIGIN PK:	END PK:	
NEIGHBORHOODS:		
PHONE:	FAX:	
MAINTENANCE:		
POST:	FIXED TFO:	MOBILE TFO:

OTHER DATA OF INTEREST:	PHOTO

POTABLE WATER CAPTURE T-12

OWNERSHIP:	CODE:
ADDRESS:	PC:
NEIGHBORHOOD:	MUNICIPALITY:
COORDINATES:	
SUPPLIED ZONES	
PHONE:	FAX:
RESPONSIBLE:	

POST:	FIXED TFO:	MOBILE TFO:
OTHER DATA OF INTEREST:	PHOTO	

WATER RAFTS T-13

OWNERSHIP:	CODE:
ADDRESS:	PC:
NEIGHBORHOOD:	MUNICIPALITY:
COORDINATES:	
SUPPLIED ZONES	
PHONE:	FAX:
VULNERABLE ELEMENTS IN THE AREA POPULATION INDUSTRIES	
RESPONSIBLE IN CASE OF EMERGENCY:	

POST:	FIXED TFO:	MOBILE TFO:
OTHER DATA OF INTEREST:	PHOTO	

OTHER TECHNOLOGICAL TYPE T-14

OWNERSHIP:	CODE:
ADDRESS:	PC:
NEIGHBORHOOD:	MUNICIPALITY:
COORDINATES:	
PHONE:	FAX:
RESPONSIBLE:	

POST:	FIXED TFO:	MOBILE TFO:

OTHER DATA OF INTEREST:	PHOTO

COSTS N-1

ID:	CODE:
MUNICIPALITY:	
COORDINATES:	
TYPOLOGY	
ACCESSIBILITY:	
OCCUPATION:	
OTHER DATA OF INTEREST:	PHOTO

AQUIFERS N-2

ID:	**CODE:**
MUNICIPALITY:	
COORDINATES:	
TYPOLOGY	
OTHER DATA OF INTEREST:	**PHOTO**

FOREST MASSES N-3

ID:	**CODE:**
MUNICIPALITIES:	
AREAS CLOSE TO POSSIBLE RISKS	
TYPOLOGY	
OTHER DATA OF INTEREST:	**PHOTO**

OTHER NATURAL TYPE N-4

ID:	**CODE:**
MUNICIPALITIES:	
AREAS CLOSE TO POSSIBLE RISKS OF MM.PP.	
DISTANCE TO RISK OF MM.PP.	
TYPOLOGY	
OTHER DATA OF INTEREST:	**PHOTO**

ANNEX 11

ANNEX 11.- VOLCANIC DAMAGE ASSESSMENT FORM

GENERAL INFORMATION

AFFECTED ZONE		EVENT TYPE
MUNICIPALITY		
ZONE		
DAY AND TIME OF OCCURRENCE		

ACCESS ROUTES AVAILABLE TO THE AFFECTED AREA			
TYPE OF TRANSPORT ACCESSIBILITY			
	TOTAL	PARTIAL	NULL
LAND			
AERIAL			
MARITIME			
OTHERS			

GENERAL DAMAGES

AFFECTED POPULATION			
LIVABLE HOUSES AFFECTED		UNLIVABLE	TOTAL

AFFECTED SERVICES BASICS	NO DAMAGE	WITH DAMAGE PARTIAL	WITH DAMAGE TOTAL	DOES NOT EXIST
WATER				
GARBAGE COLLECTION				
SEWER/DRAIN				
ELECTRIC POWER				
COMMUNICATIONS				
TRANSPORT				

HEALTH DAMAGE

VICTIMS							
PLACE (SPECIFY)	NUMBER OF VICTIMS ACCORDING TO GRAVITY				NEED TO TREATMENT		OBSERVATIONS
	SEVERE	MODERATE	SLIGHT	TOTAL LOCAL		EVAC.	

DAMAGE TO LOCAL HEALTH SERVICES

HEALTH FACILITY		FUNCTIONING			COVERAGE
NAME	LEVEL OF RESOLUTION	TOTAL	PARTIAL	NULL	

HOSTEL

ESTABLISHMENT		FUNCTIONING			COVERAGE
NAME	LEVEL OF RESOLUTION	TOTAL	PARTIAL	NULL	

SUPPORT REQUIREMENTS FOR THE IMPLEMENTATION OF ACTIONS PRIORITY

	AMOUNT	PRIORITY
MEDICINES		
WATER AND ENVIRONMENTAL SANITATION		
FOOD AND DRINKS		
SHELTER/HOUSING/ELECTRICITY/CONSTRUCTION		
PERSONAL NEEDINGS		
HUMAN RESOURCES		
OTHERS		

ANNEX 12

ANNEX 12.- GENERAL PROCEDURE FOR ACCESS TO EMERGENCY ZONES

INTRODUCTION

The Emergency Plan establishes the need to guarantee the safety of the intervening bodies and of people who, due to certain circumstances, have to access the emergency areas.

Although each eruption presents some particular characteristics, some common parameters can be established. In general, eruptions are effusive events that emerge through fissures or craters of variable length (meters or kilometers). The eruptions can last a few weeks or months and is related to the volume of emitted material. The eruptions will produce local seismic movements, which can even be felt on other islands, which, although low in intensity, can cause serious effects on infrastructure, especially road cuts, rockfalls, cracks in buildings and visible deformations in the terrain.

OBJECT

It is the object of this access control procedure in the security device in the different areas affected by the volcanic eruption.

SAFETY ZONES

Within the scope of this Operational Plan, different security zones have been established to guarantee the safety of those involved and the population in general.

1. GREEN AREA

Geographical area in which it is initially considered that there are no risks for the population or the people involved.

2. YELLOW ZONE

Geographical area in which the risks are very localized. Security measures must be maintained to guarantee the integrity of the participants or people who are in this security zone.

3. RED ZONE

Geographical area in which certain risks exist and can only be accessed adopting strict security measures.

AUTHORIZED PERSONNEL IN EACH ZONE

Access limitations have been established in each emergency area. These access limitations will be implemented by the Security Group, which has, among other functions, to prevent unauthorized persons from entering risk areas.

1. GREEN AREA

This area is initially considered to be without risk, the population will continue to carry out their daily activities normally and will therefore be considered as a shelter area for the purposes of the plan.

There are no restrictions on mobility or access to this area.

2. YELLOW ZONE

This zone will be defined as a priority by the evacuated zone, and will include at least a 1,000 meter zone around the crater and between 300 and 400 meters from the eruption zone covered by lava or pyroclastic flows. The area is excluded from this perimeter
red.

a) Free access: The personnel integrated in the Action Groups of the Action Plan coordinated.

b) Controlled and escorted access:

- ÿ Personnel from service companies that support the Coordinated Action Plan.
- ÿ Technical staff of maintenance companies Maintenance services electrical, communications, etc.
- ÿ Local Administration personnel who need to carry out functions administrative.
- ÿ Technical personnel from companies with certain risks (gas stations, workshops, warehouses, etc.).
- ÿ Ranchers and farmers in the area to carry out the essential tasks of assistance or recovery of goods.
- ÿ Journalists and media.

Access to this area for non-members of the plan will be authorized by the Logistics Group Manager or the Operations Director.

Persons authorized to access the yellow zone will be accompanied by members of the Logistics Group to carry out the urgent tasks entrusted to them.

The security group will be in charge of controlling access to the Yellow Zone.

3. RED ZONE

In this area, due to the risks inherent to the volcano, access will be strictly prohibited, except for those interventions that are considered important for the instigation of the emergency.

These essential interventions in the red zone will preferably refer to flow conduction, establishment of dikes, measurement of parameters and volcanic indicators, etc. This will include the crater of the eruption, if it exists, as well as the area covered by lava or pyroclastic flows.

The members of the Intervention Group will be, in principle, the personnel to carry out these functions. Access will be authorized exclusively by the Head of the Intervention Group or by the Operational Director of the Plan. To access the red zone, they must have all the security elements considered necessary at the time
of access.

The maximum daily limits of stay in the red zone must be established.

ANNEX 13

ANNEX 13.- GENERAL PROCEDURE FOR THE COORDINATION OF THE LOGISTICS OF INTERVENTION

The Logistics Group will have the task of supporting the intervention groups and their organizations, in order to ensure the effectiveness of the actions established for the expected scenarios and those that may overflow due to their own conditions risk or weather conditions.

The person in charge of the Group will have their coordination support in the CECOES 1-1-2 that ensures On the one hand, the Management has a real-time evaluation of the conditions of the supplies and support to the emergency, such as transmitting to it, needs and channels of acquisition of supplies from other local or national administrations, which implies a Important administrative support for large-scale events.

LIST OF STRATEGIC MEANS FOR THE DEVELOPMENT OF LOGISTICS

The primary objective of the organization of logistics is to have at hand, all the relevant information about the means and resources necessary to support the operations of the Action Groups in order to supply them in the shortest time possible.

- Apart from the means and resources that the Groups of Action as part of its equipment an investigation of the exceptional means that may be required, including the relationship of large construction companies that own equipment and machinery heavy that are of vital importance for intervention work.
- An important aspect for the maintenance of the conditions health centers of media reception centers and other facilities that are required, is the placement of portable toilets.
- Regarding transportation and provisioning, the Cabildo will provide said media.
- The Cabildo Highway Group will provide all the necessary support for the accesses of the Action Groups and the teams that this implies.

Within the coordinated Action Plan of the Cabildo, it will be established in conjunction with the Government of the Canary Islands the parameters and definitions sufficient for the Plan to have the means and extraordinary resources of the emergency.

MEDIA RECEPTION CENTER

First, a Main Media Reception Center (CRM) would be established that will cover all the needs that the emergency demands, not only in terms of traditional way of providing coverage for the Action Groups but also of providing an appropriate venue for the logistics of supporting those affected, depending on the characteristics of the emergency, more than one Center could be established. These will be under the coordination general of the Director of Operations.

As a complement to this Main Center, satellite centers may be established whose functions can be generic, supporting various Action Groups, Groups determined or to the units of these groups. Depending on the magnitude of the emergency, more than one of these main reception centers of media.

The graph shows a series of primary Satellite Centers and other secondary ones As an example, what is expected of this is to have integrated all the information of the Logistics for your information and taking corrective measures to the Plan Management. The Technical Body of Management of the Plan in consensus with the Heads of the Action Groups will determine with accurately the required Centers and their location based on the demands of the emergency. The desired objective is to establish a coordination network that allows information flows and deficiencies can be detected in the supplies to the Groups of Action.

The Essential Services Group will be in communication with the Group of Infrastructure and Logistics and CRM, as well as the specific logistics centers that demand their own needs, in order to support each other.

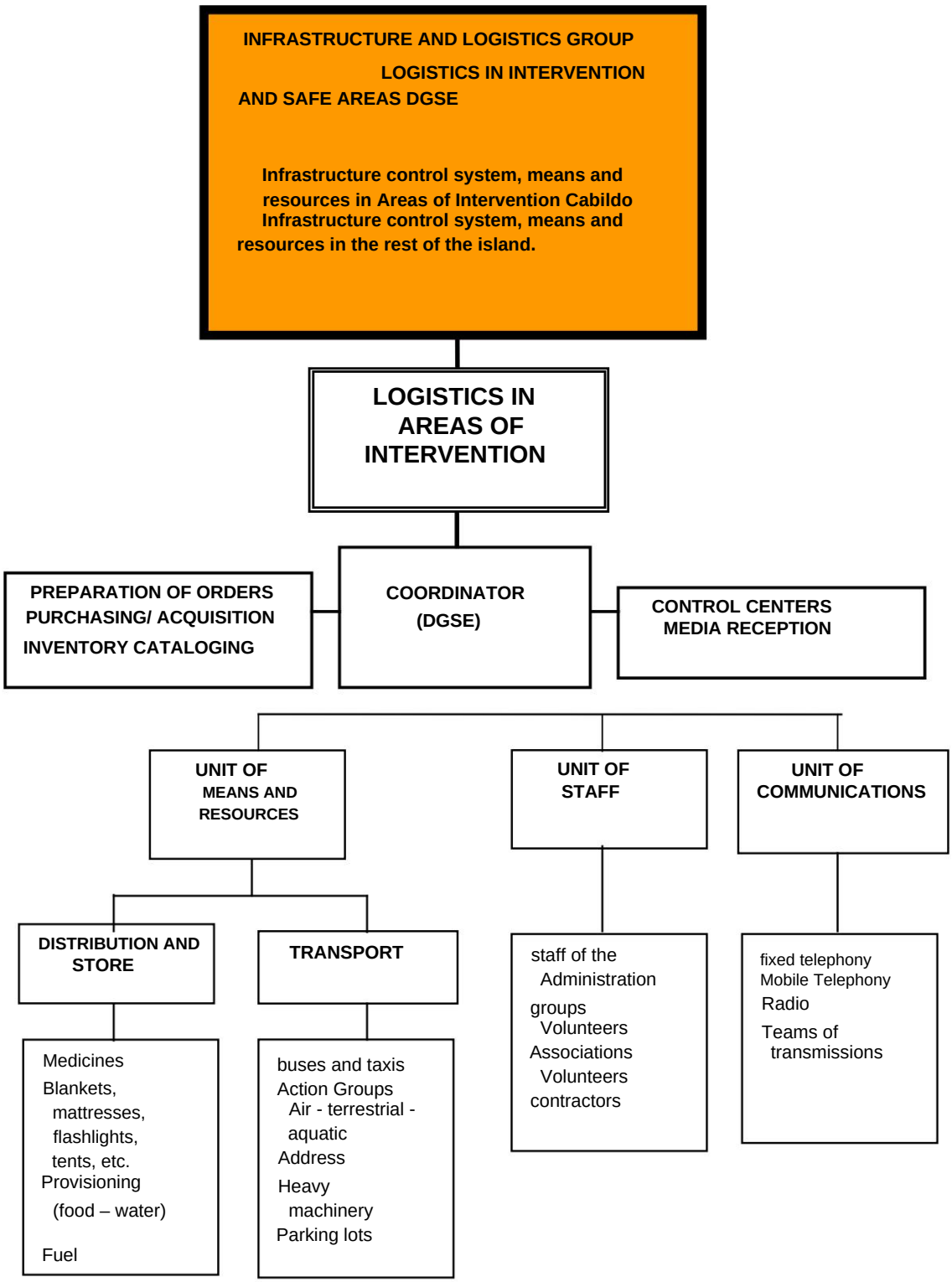
Criteria for the definition of CRM

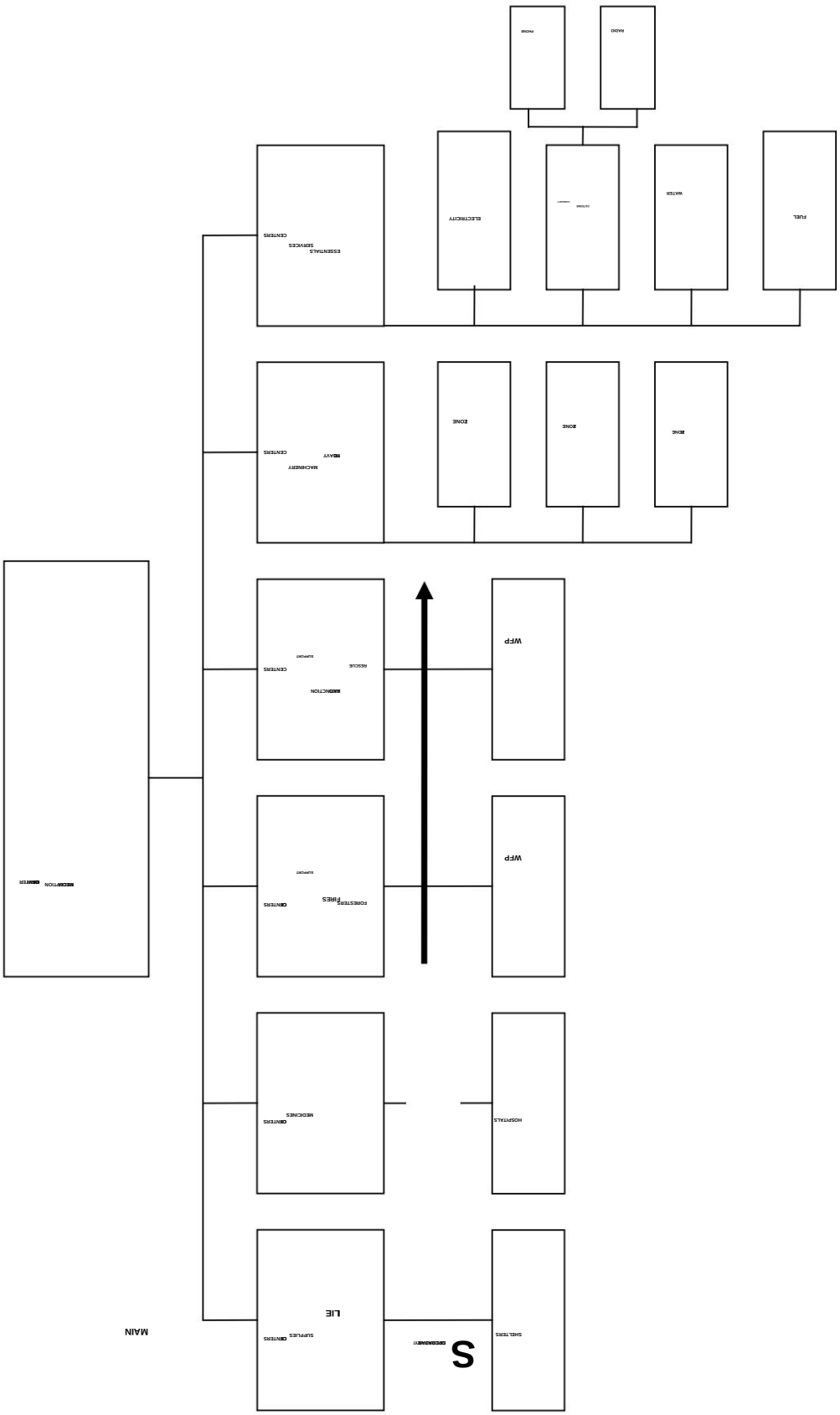
- Sufficiently far from risk areas, but close to them.
- Ease of access by highways or main roads.

Complete services of electricity, water, telephone, etc. However, the Center will have autonomous equipment such as two generator sets, a water tank with water treatment plant, buses with telephones.

- Spaces for the installation of the management systems contemplated by the Group Logistic.
- Sufficient space to locate vehicles, heavy machinery, quartermaster and materials.
- Coordination center that includes a manager from each group involved.
- Bases of communications of the Plan.
- Areas with facilities such as kitchen, dining room, toilets and shops for the rest of the intervening personnel.

The Reception Center will be the point of union of the Logistics where it will be possible to evaluate continuously the response of the means and resources during the emergency to keep the Plan Management informed of the effectiveness of the supplies.





ANNEX 14

ANNEX 14.- GENERAL PROCEDURE FOR EVACUATION

1. EVACUATION CONDITIONS

When, once the Plan has been activated, the evacuation of an area is ordered, the Director Operator and the Head of the Security Group will meet with those responsible appointed for the evacuation by the Intervention Groups, Logistics, Essential and Sanitary Services, as well as with the insular and municipal coordinators, in order to establish the following points:

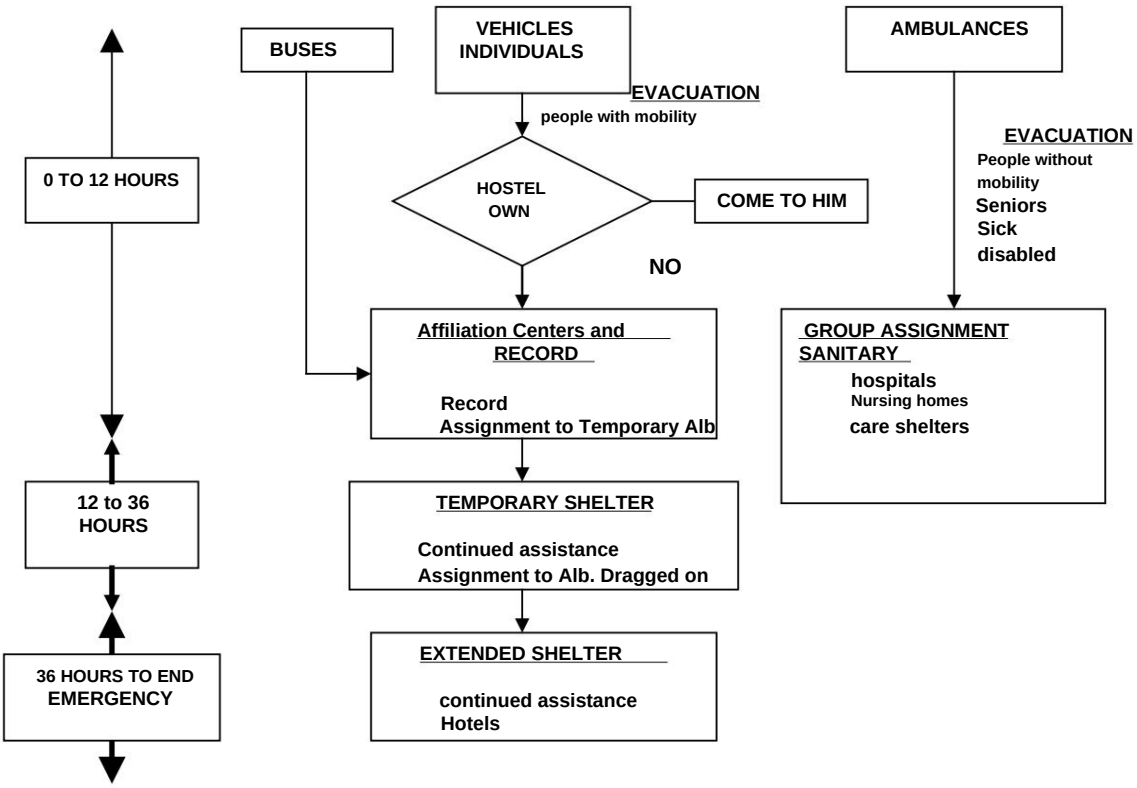
- Division into evacuation zones.
- Existing public premises in the area, which have to evacuate.
- Calculation of people to evacuate.
- Forms of notice and start time of the evacuation.
- Meeting points.
- Means available for transportation.
- Special media needs for people who need transportation special.
- Places where evacuees will be housed.
- Itineraries to follow, both outbound and return vehicles transport.
- Needs of shelter material, while traveling.
- Appointment of managers by meeting point and transport vehicle.
- Provisioning if necessary.
- Evacuation registration system.

In the event that the evacuation forms part of a spontaneous evacuation, they charge the The following points are of utmost importance:

- Regulation of vehicle flows outside the area to be evacuated, with routes mandatory alternatives.

- Communication to the population of the primary allocation centers, which are large assembly points where to classify and register people and assign a temporary shelter.
- Communication of the meeting points, for those people without means of transport, or that by the advice given they decide to leave their own means.
- Establishments of refreshment points, both drinks and winter clothes.

EVACUATION FLOW CHART



2. SPECIAL POPULATION IN CASE OF EVACUATION

Depending on the scenario and sector, the Health and Social Assistance Group determine the population of special attention for the collection and transport to the specialized care centers to which they correspond, coordinating and directing said activity.

The Health and Social Assistance Group will keep an updated record of the population of special attention and will make the necessary adjustments to the operation designed for that purpose.

3. EVACUATION STAGES

In order to carry out an orderly and timely evacuation, the Scientific Committee of Evaluation and Follow-up, if possible, will define a zoning of the danger of the various risk agents around the possible places of emission, said areas will be the basis for establishing priorities in carrying out the evacuation defining two basic stages:

First Stage: The evacuation of the sectors closest to the possible centers of emission, since these would receive the direct impact of the pyroclastic or the effect of the gases in the event that they were produced, the seismic movements would also be of greater intensity around the eruption zones with the possible collapse of structures in especially those whose design does not have the seismic-resistant characteristics established in the regulations.

Another population that would be within this stage would be the population of special attention due to its characteristics and already registered by the Health and Social Assistance Group.

Second Stage: It involves a more extensive area relatively remote and whose consequences are considered minor, with which the evacuation can be after the nearest areas. In principle they would be defined as medium to low risk but that due to the difficulty of accurately predicting the effects of the eruption volcano, it is necessary to proceed with its evacuation to ensure the lives of all. exist events such as pyroclastic flows or landslides that, if they occurred, would manifest very quickly.

Punctual Evacuations: Because some of the phenomena can occur in a localized way, such is the case of the effect of the ashes whose behavior will depend on wind conditions, evacuations of some potentially vulnerable sectors.

Mass Evacuation: Taking into consideration that most eruptions volcanic eruptions can be predicted with some ease no massive evacuations are expected rather, they will be produced in a controlled manner by stages such as those previously

described. However, in the event of an unforeseen imminent volcanic eruption, and Why would it imply a massive evacuation, at least from the most nearby, urgent measures would be taken to avoid the consequences of a uncontrolled evacuation. The Security Group will have a special operation to these cases.

4. MEETING POINTS

The beginning of the evacuation includes the displacement of people from their places of residence to meeting points, whose function will be to concentrate safely to people in a certain sector, to be transported from there to places of shelter, where they will have all the services that guarantee a stay in the best possible and safe condition.

It will be established for all areas of the municipality and especially those that potentially The meeting points could be the most exposed in order to collect those people who cannot travel with their own vehicles. the police premises must establish an area known to all, easily accessible and with enough space to bring them all together, for those localities where find a suitable meeting point, the bus stops will be used and stations, therefore, if small groups of people will be found at each stop, safety measures must be taken into account, such as not will invade the road, to avoid being run over or interrupt the free access of the vehicles.

For the middle and lower areas, the Civil Guard in coordination with the local police The meeting points will be defined with a traffic regulation to ensure the fluidity of transport for buses and other vehicles.

The security forces and bodies, in accordance with their operations, will ensure the normal development of the evacuation along the route, that is to say from the homes to the meeting points and from these to the places of affiliation and designated shelters.

5. EVACUATION ROUTES

The Security Group in coordination with the transportation system programmed by the Cabildo and in coordination with the town halls, will determine the routes of evacuation of each sector or neighborhood of the considered municipalities and the operation of

traffic on the main roads at risk and will be included in the Action Plan
Island Coordinate.

The evacuation route will have the control points that the security forces and bodies
security deem necessary and in strategic places, in order to ensure the
safety and fluidity in case of possible traffic jams.

6. CUSTODY OF EVACUATED AREAS

The Security group will be in charge of the custody and surveillance of the evacuated areas, the
Permanence in said areas will be determined by the Plan Management based on the
risks present in the area, having to leave it when the indicators
predict that there is a risk to the lives of the people stationed in the areas of
surveillance. The permanence will be greater because the evacuations of the population
will start long before the existence of imminent risk for reasons of time
required to avoid problems or damage that may occur during the exodus
towards safe areas.

ANNEX 15

ANNEX 15.- GENERAL PROCEDURE FOR COORDINATION AND ADMINISTRATION OF SHELTERS

CRITERIA FOR THE DETERMINATION OF SHELTERS

For its determination, the following characteristics have been taken into account:

- Accessibility.
- Specific risks that affect them.
- Population density.
- Topographic conditions.
- Others

Two types of shelters are established in each area, depending on the requirements following:

- Possibility of accommodation.
- Kitchens.
- Toilets.
- Accessibility.
- Living areas.
- Nursing.

For each island, the municipalities that are considered most appropriate for provide logistical support and in collaboration with their mayors/mayors, the centers that meet these requirements, thus establishing a list of possible shelters that would be conditioned to fulfill said function.

Likewise, in the Coordinated Action Plans a catalog of centers will be drawn up of education, premises and ships that allow the accommodation of people with a temporality established by the Management of the Plan, its purpose as shelters or logistics support locations will be taken into account based on their characteristics.

SHELTER ORGANIZATION

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logistics support locations will be taken into account based on their characteristics.

SHELTER ORGANIZATION

In each place of shelter there must be a person in charge of the municipality who has the following obligations:

- Prepare the center for housing evacuees.
- Establish a list of people staying at your center, and must Know those people who are going to need specific assistance.
- Maintain permanent contact with the Head of PMA to:
  - ÿ Be informed of the arrival of the evacuees.
  - ÿ Communicate the free places in the center at all times.
  - ÿ Submit the lists of people housed in the center.
  - ÿ Communicate the total number of people housed and their age bands, for the food supply.
  - ÿ Request the necessary blankets and bedding to equip all the evacuated.
  - ÿ Request the necessary clothing to complete the clothing of the evacuated, if necessary.
  - ÿ Request the means of personal hygiene and utensils for the people of the center.
  - ÿ Distribute and label the halls of the center, for the different uses to which that are destined, infirmary, to be, etc.
  - ÿ Require health services to review people hosted, as well as specific assistance to those who need it, including the supply of medicines for chronic patients.
  - ÿ Request the assistance of psychologists, social workers, etc. that they were necessary for the attention of the lodged.
  - ÿ Establish shifts in the center for cleaning, grooming, meals and all those activities that must be carried out, both of the people who collaborate from outside, as from the hosts themselves.
  - ÿ Request as much information from other people as is demanded by the evacuees.

For all this, the evacuee control sheets will be used (Final Sheet of Annex 16) that each family unit must fill out upon arrival at the center, copies of which must be made Get to the Logistics Group.

In order to know at all times where each of the people are evacuated, the person in charge of each transport vehicle will fill out a file such as the above, which they will deliver to the Zonal Coordinator upon arrival at the place of the accident.

In addition to the person in charge of the Shelter, you must establish an organizational structure to ensure its proper functioning. This structure will be made by:

- Health personnel from the Canary Islands Health Service in charge of the health of the people
- Social assistants and psychologists of the town council and town halls of origin and destination to meet the needs of evacuees.
- Communications technician to guarantee telephone communications, fax and radio stations for coordination with the CECOES Room 1-1-2.
- Civil Protection Volunteers, with the work of general support, logistics and supplies inside the shelter.
- Administrative for the control of administrative data and affiliation of the evacuated people.
- Local Police of the affected municipalities

SUPPLY FOR THE SHELTERS

The Logistics Group will be responsible for distributing in each of the centers in which that people have sheltered because of the accident, to supply as many food, clothing, belongings, etc. that are demanded by the Coordinators of each center.

To do this, you must study together with those responsible for the order and logistics groups. and the municipal manager, the places where the means and materials must be collected following:

- Meals.
- Dress clothes.

- Kitchenware.
- Mattresses, blankets, sheets, etc.
- Elements for personal hygiene.
- Cleaning supplies.

Decide the transport routes for delivery to all centers with people evacuated, depending on the means of transport available.

LIST OF ACCOMMODATIONS IN TOURIST CENTERS

Taking into consideration that the situation of a large number of families affected for very long periods of time, would settle in hotels or apartments available in coordination with the Ministry of Tourism and ASHOTEL.

With the collaboration of the Ministry of Tourism, there will be a list of the units and accommodation places in the logistical support municipalities of the island.

In total, the available places will be counted and it will be agreed with the holders whether public or private in order to locate the largest number of people in the shortest time possible to help manage the crisis, reducing the impact that this type of phenomenon can cause the inhabitants.

A person in charge of social services from both the municipality of origin and destination They will maintain a relationship of the situation of the people and attend to their needs.

CONDITIONS IN CASE OF MASSIVE AND URGENT EVACUATION

In the event that an orderly evacuation to centers has not been possible foreseen, and that, upon sudden occurrence of the incident, has forced the persons who have had to leave their homes, to take refuge in places in the open air, the Technical Director through the evacuation coordinators, will carry out their work in those places being its functions, in addition to those already detailed above, the following:

- Request tents, for accommodation, medical consultations, dining room, latrines, warehouses etc

• Distribute the assembly of the stores in an orderly manner and that allows the movement around the camp, taking into account possible runoff of water, in case of rain.

• Distribute the assembly of the stores in an orderly manner and that allows the movement around the camp, taking into account possible runoff of water, in case of rain.

• Request lighting equipment and, if necessary, heating, food and that allows the based on electric generators.

Request furniture for dining • stores, warehouses, etc.

• Request lighting equipment and, if necessary, heating, food • Any other need that allows the evacuees to pass with dignity the based on electric generators.

days it takes to declare the end of the emergency or transfer to shelters.

• Request furniture for dining stores, warehouses, etc. ***ORGANIZATION OF TRANSPORT DURING EVACUATION***

• Any other need that allows evacuees to pass with dignity the participation of transport is organized and directed by the Cabildo with the

days it takes to declare the end of the emergency or transfer to shelters. means of public and private transport necessary to cover with all

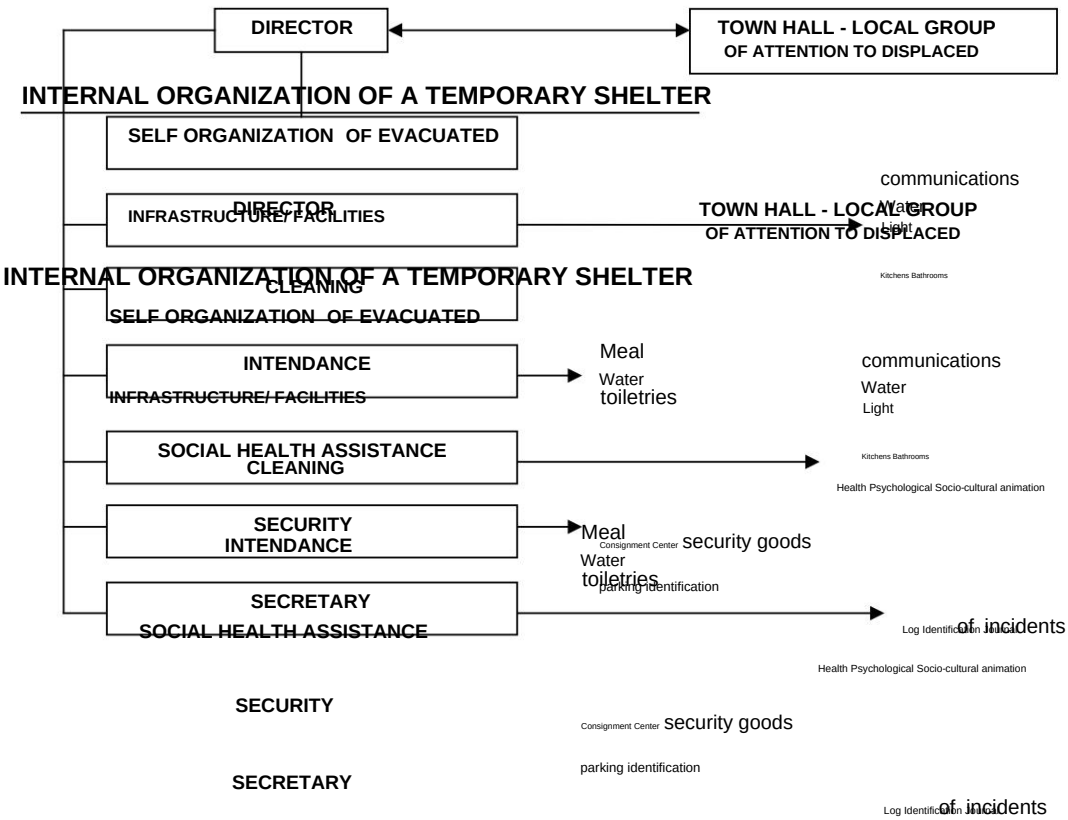
efficiency the rapid evacuation of areas at risk, especially those people ***ORGANIZATION OF TRANSPORT DURING EVACUATION***

who do not have their own means to evacuate or who cannot use them, this The transport organization is organized and directed by the Cabildo with the participation of the operation will be included in the Island Emergency Plan. all means of public and private transport necessary to cover with

efficiency the rapid evacuation of areas at risk, especially those people

who do not have their own means to evacuate or who cannot use them, this

operation will be included in the Island Emergency Plan.



DIRECTOR
TOWN HALL - LOCAL GROUP
OF ATTENTION TO DISPLACED
INTERNAL ORGANIZATION OF A TEMPORARY SHELTER
SELF ORGANIZATION OF EVACUATED
DIRECTOR
INFRASTRUCTURE/ FACILITIES
CLEANING
INTENDANCE
SOCIAL HEALTH ASSISTANCE
SECURITY
SECRETARY
communications
Water
Light
Kitchens Bathrooms
Meal
Water
toiletries
Health Psychological Socio-cultural animation
Consignment Center
security goods
parking identification
Log Identification Journal
of incidents

ANNEX 16

ANNEX 16.- AFFILIATION CENTERS AND REGISTRIES

1. PURPOSE OF THE CENTERS:

Determine the health conditions and accommodation needs of the displaced of the evacuation process in order to provide them with medical care, partner health, maintenance and accommodation that provide good conditions of life for the duration of the emergency. It will also serve to give information to relatives and relatives that give peace of mind to the population.

The Centers will be located far enough apart in safe areas. He location can be covered in open-plan facilities such as sports centers or open, but it would imply temporary installations based on tents.

2. STRUCTURE OF EACH CENTER:

Each center will consist of a location that will facilitate the entry of displaced in facilities where their needs can be met. TO Below are the required facilities:

a) **Signposted road and parking areas:** bus parking and vehicles, indications for traffic entering and exiting vehicles and areas pedestrian traffic in safe conditions.

b) **Arrival areas for displaced persons and/or retention or waiting areas:** covered area where they will remain protected from the elements. Although it is not contemplated times greater than half an hour, it is possible that the process can be slowed down and accumulate a large number of people waiting both at the entrance and at the the exit.

c) **Registration area for residents and non-residents:** tables with computers for the registration of each displaced person, where all the data of health, address of origin etc. Assignment of place of destination in case of no have alternative residence or foster family.

d) **Coordination center:** It would have integrated all the support services with its coordinator, these would be: health personnel, socio-sanitary personnel, forces security, Civil Protection (coordination of volunteers), coordinator of accommodation, coordinator of attention to foreigners, coordinator of the Center.

e) **Transmission and communications center:** It will ensure the maintenance of the communications.

f) **Health area:** space for primary care for displaced persons.

g) **Kitchen and dining room:** This can be complemented with catering services.

h) Area of services and toilets.

i) Dormitory and living areas of people associated with the Center's operations.

j) **Essential services:** two generator sets, water tank with water treatment plant (20,000 liters), diesel and gasoline tanks.

k) Parking areas for vehicles of operational services.

EVACUATE CONTROL COMPUTER SHEET						
MUNICIPALITY:			**FAMILY IDENTIFICATION NUMBER:**			
HOUR:			**DATE:**			
NAME AND SURNAME (*):			**AGE:**	**ID:**		
MOBILE TFO (CONTACT):			**TFO OF FAMILY:**			
OTHER COMPONENTS OF THE FAMILY UNIT:						
NAME	**ID**	**RELATIONSHIP**	**AGE**	**OBSERVATIONS**		
DESTINATION POINT:						
	WELCOME CENTER PRIMARY		**TEMPORARY SHELTER**		**EXTENDED SHELTER**	
	ENTRANCE	**EXIT**	**ENTRANCE**	**EXIT**	**ENTRANCE**	**EXIT**
HOUR DAY						
HEALTH DATA:			**NO. OF SEC. SOCIAL:**			
Chronic diseases (1) ÿ			Infant (6) ÿ			
Disabilities (2) ÿ			Pregnancy (7) ÿ			
Dialysis treatment (3) ÿ			Disabled (8) ÿ			
Diabetes (4) ÿ			Allergies (10) ÿ			
Daily medication (5)			Others (11) ÿ			
OBSERVATIONS:						
DATA OF CONTACT FAMILY:						
NAME	**PHONE**		**RELATIONSHIP**			
FORM COMPLETED BY:						

(*) Fill in one file per family unit. The data of the head of the family or first-order relative will be entered.

NOTE: This copy card will be filled out by the head of the family keeping a copy. The original will be delivered to the Zonal Coordinator, and another copy to the Logistics Group.

Note: THIS SHEET SHOULD ALWAYS BE CARRIED WITH YOU

ANNEX 17

ANNEX 17.- TRAINING PLAN.

It forms a fundamental part of the implementation and maintenance of civil protection the task of informing and training all persons with responsibility in civil protection plans in order to improve operability.

In every Civil Protection Plan, a training program must be associated to which reference in the next section.

Training program.

An annual training program must be carried out, associated with the systematized study of all the personnel involved, of their functions and responsibilities in the plan, study which must determine the training needs that need to be covered and which designs the modalities of courses that it is necessary to impart so that all recipients come to have a good knowledge of the various risks (for which which the plan has been drawn up) of the structure and content of the different plans; their functions and responsibilities, the procedures for action to make facing the different situations, the operability linked to the different plans, and the different protection measures that need to be adopted.

The scope of this knowledge should make it possible to largely resolve the process of implementation of the plans, which will need to be consolidated by carrying out Exercises and Simulations.

Those responsible for the different courses must participate in the design and teaching of the courses. acting groups, especially on the subject of acting itself.

Essentially it is necessary to get the personnel involved in the PEVOLCA Plan know:

a) The risk.

b) The structure and content of the plan.

c) The functions and responsibilities.

d) The procedures of action.

e) The operation of the plan.

f) Precautionary and protective measures.

The different modalities of the courses designed in this training program, as well as as well as its content and breadth, must be determined by the characteristics of the receivers, which can be:

- ÿ Responsible for the plan, and links to the different administrations or entities involved.
- ÿ Senior managers of the action groups (intervention, health, order and others).
- ÿ Intermediate positions of the action groups (intervention, health, order and others).
- ÿ Base performers.
- ÿ Media, special chapter is related to the media, who have a prominent role in the system of dissemination of notices and communications that will be given to the population, then the training towards this professional group will be very specific.

The generic and initial content of these courses should cover in more or less detail the following content:

- ÿ Planning and legal framework.
- ÿ Study and analysis of risk and its consequences.
- ÿ Activation/deactivation of the action plan and procedures.
- ÿ Protective measures.
- ÿ Practical cabinet exercises: practical cases resolved in cabinet.

ANNEX 18

ANNEX 18.- OPERATING RULES OF THE SCIENTIFIC COMMITTEE OF EVALUATION AND MONITORING OF VOLCANIC PHENOMENA (C CES)

1. Each CCES member entity must formally name its representative therein. The appointment of each member will be made through writing signed by the person in charge of the Entity, and must be sent to the General Directorate of Security and Emergencies of the Government of the Canary Islands.

2. Each designated member, and prior to their participation, must sign an affidavit of commitment to comply with the rules of operation of the Committee. It will expressly state that, Unless expressly authorized in this regard, the information may not be used contributed to the CCES by the different Entities that are part of it to for any purpose (research, etc.) that does not have an exclusive relationship with the advice to the management of PEVOLCA.

3. This Committee will have a single representative who will serve as the Committee's liaison with the PEVOLCA Directorate and who will represent the CCES in the Committee of Management of the Plan. The designation of the sole representative will be made by vote, A simple majority must be obtained whenever it involves more than one third of the total number of members of the Committee. In case you don't get the candidate half plus one of the votes or a simple majority in the terms previously explained, it will be the direction of PEVOLCA who defines the sole representative. Exceptionally and in case the complexity of the situation so requires, the number of members of the Board may be increased to two. CCES to convey their opinion to the Steering Committee of PEVOLCA. It will be possible renew the spokesperson when so requested by the majority of the members of the Committee.

4. Attendance at Committee sessions is mandatory, and may be object of exclusion of the same the continued non-attendance to the calls. It is understood for continued non-attendance when more than three consecutive sessions are missed or more than five in the case of a crisis that lasts for months.

5. For the holding of Committee sessions each participating Entity that has a permanent network of volcanic surveillance must provide the

General Directorate of Security and Emergencies, prior to the same, a written report. This report, if referring to possible signs precursors of an eruption must include all the data available the Entity, and comply with the provisions of section 2.4.I of the Resolution of 30 of January 2013, of the Undersecretariat of the Ministry of the Interior, by which publishes the Agreement of the Council of Ministers of January 25, 2013, by which the State Civil Protection Plan against Volcanic Risk is approved (Bulletin State Official No. 36, of Monday, February 11, 2013). In case of referring to an eruption in progress must comply with the provisions of section 2.4.III of the mentioned State Plan, therefore including possible risk scenarios, probabilities of occurrence and other useful information for the management of the volcanic crisis by the Plan Directorate.

6. So that all members of the Committee have access to the information with sufficient time in advance for their analysis and study, said reports must be sent at least two days prior to the celebration of the corresponding session, and redistributed among the members of the CCES. In In the event that a member of the Committee does not deliver the written report with prior to the work session, it will imply that the latter (Entity or person) does not can participate in it.

7. After the debate and discussion of the information during the Committee, the members of the CCES must reach a consensus on the reality of the phenomenon, raising to Plan Management a written and unique document signed by all members. In case there are discrepancies in the elevated report, these must be included in an annex to the report, and must also be signed by the defender of these positions.

8. Every time the PEVOLCA is activated in any of its levels and situations, with the exception of emergencies, the Information Office of the Plan will not prevent the statements and relations of the members of the Committee with the media, as long as the information transmitted be agreed within the meetings of the same. In any case These contacts must be previously communicated to the Cabinet of Information for a better coordination of the messages issued by the

PEVOLCA members. The content of this point also includes the use of social networks by CCES members.

9. All the members of the Committee undertake that the relations and Statements in the press regarding the sessions of the same should be directed and coordinated by the Plan's Information Office.

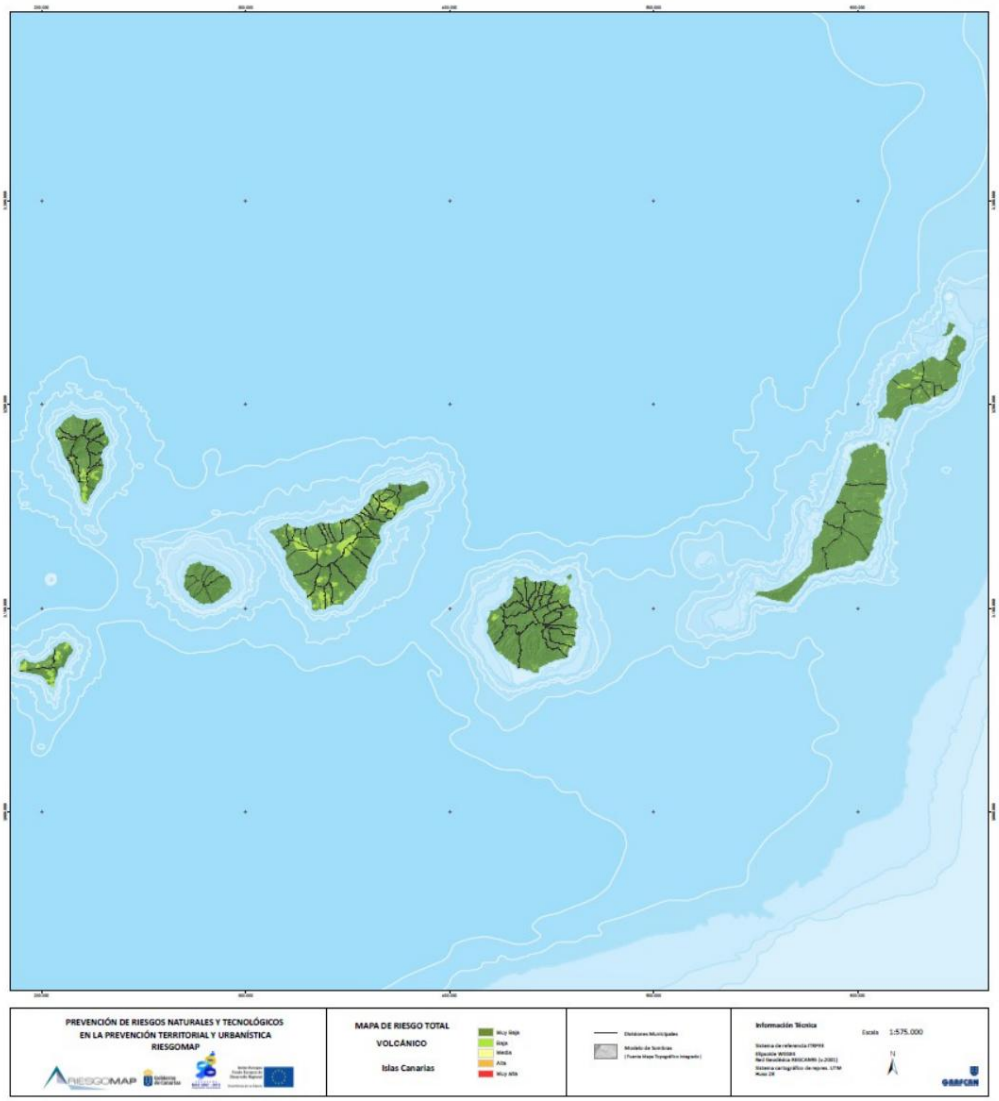
10. Any breach of the operating rules detailed in the previous points will suppose the immediate expulsion of the CCES, as well as the impossibility of accessing the scientific data that is debated within it. In In the event of the expulsion of one of the members of the Committee, the institution to which he belongs must designate a new member who will supla in order for it to be represented therein.

11. For each session held by the CCES, the representative of the Directorate General of Security and Emergencies will draw up a written record. This record shall be sent to the different members of the CCES within a maximum period of one week for its approval or modification, if applicable, by those who participated in the work session. Likewise, the sessions of the Committee will be recorded by the General Directorate of Security and Emergencies, said recording being part of the minutes of the session.

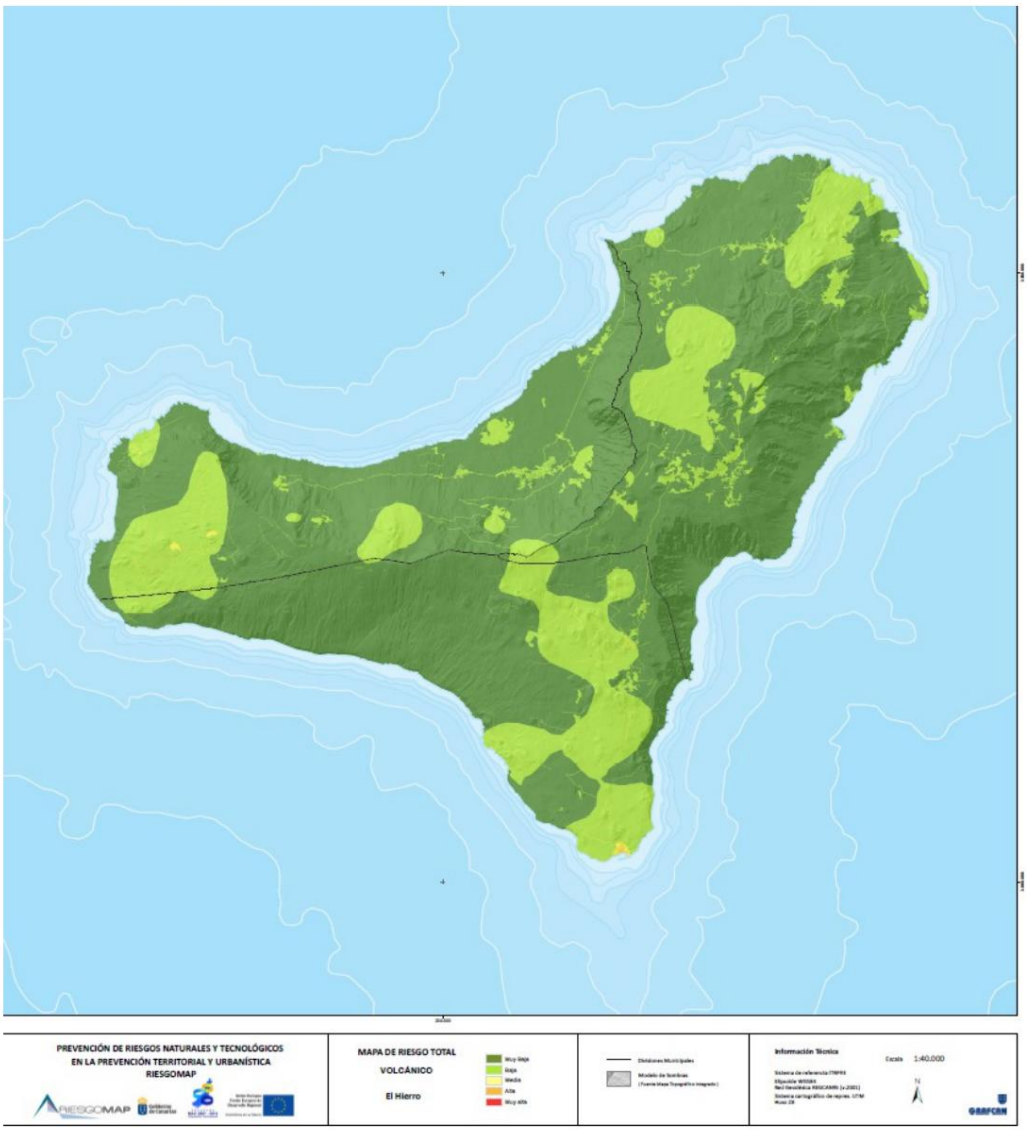
ANNEX 19

ANNEX 19.- TOTAL VOLCANIC RISK MAPS

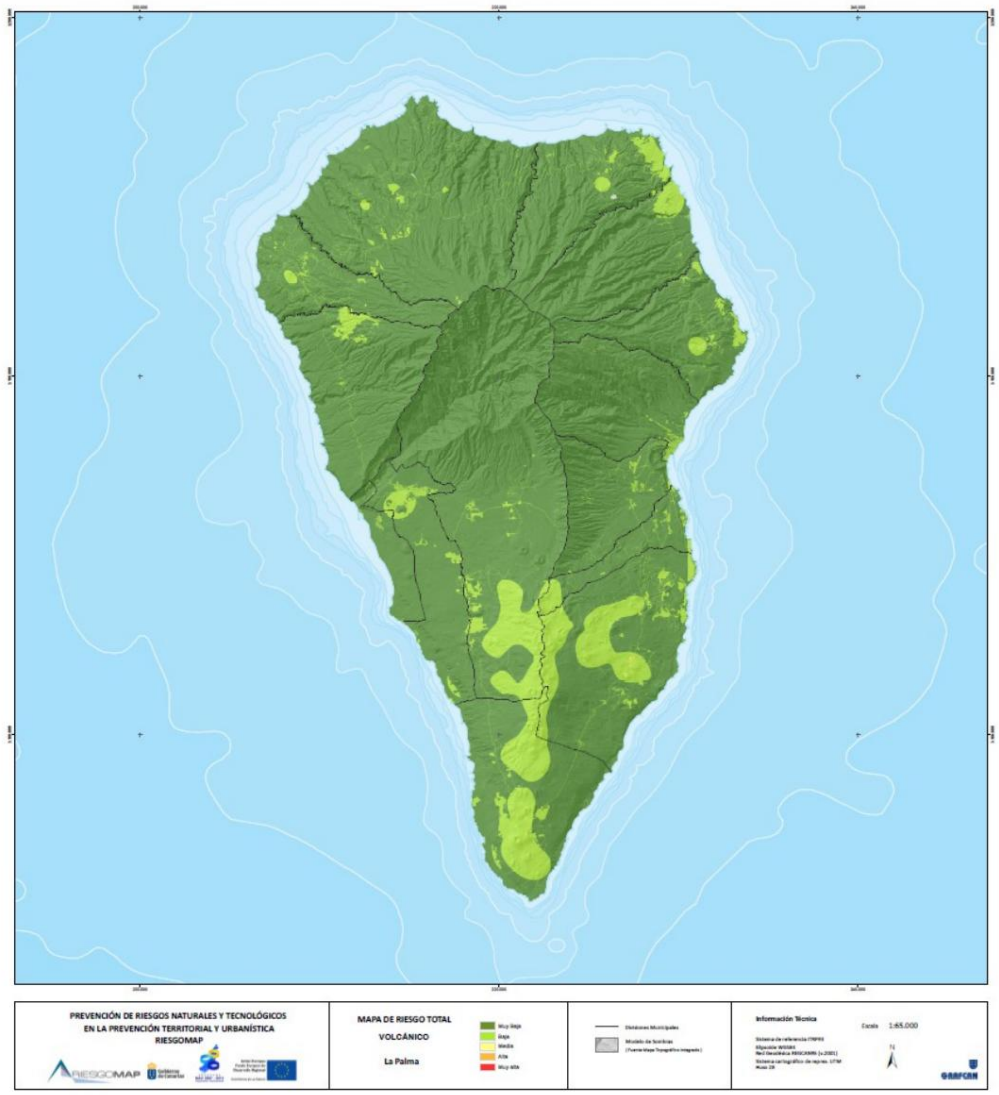
CANARY ISLANDS



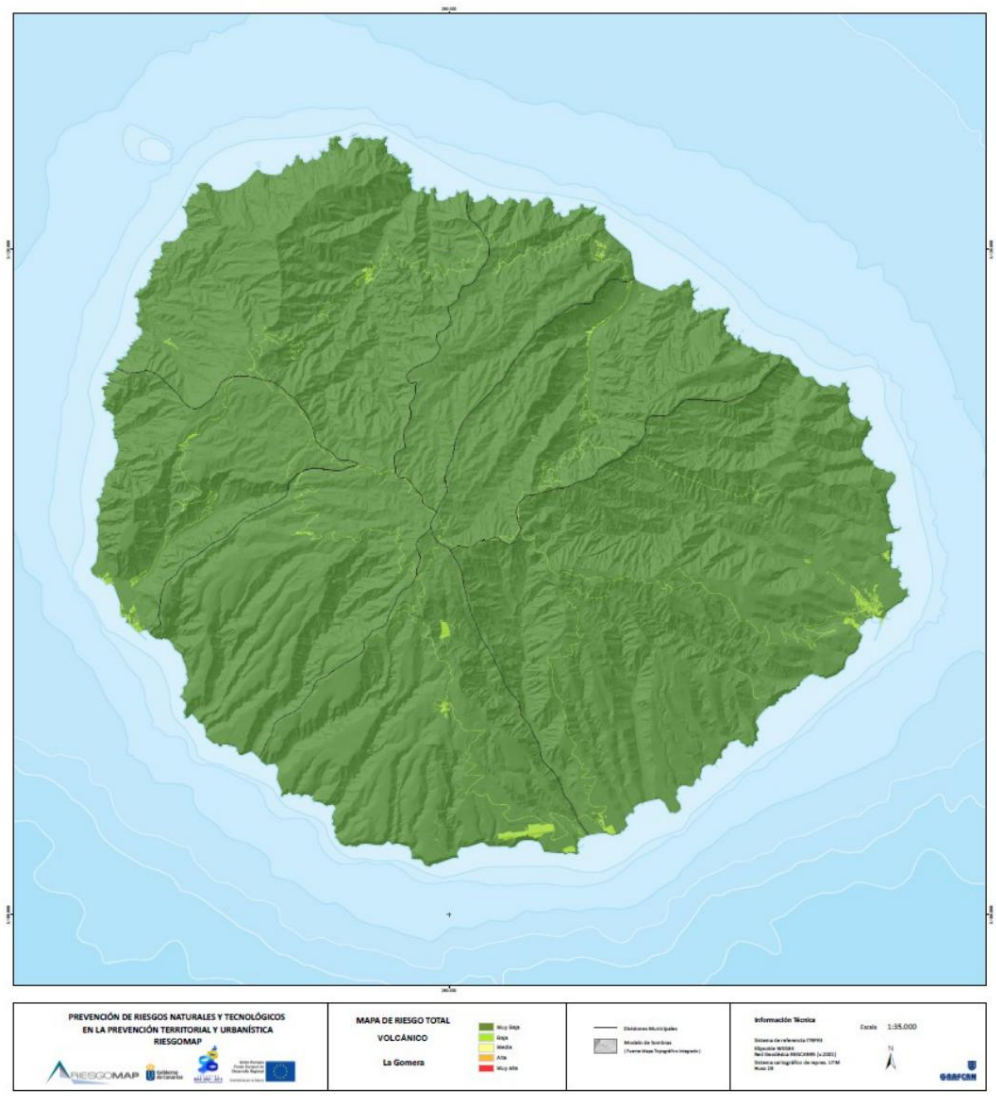
THE IRON



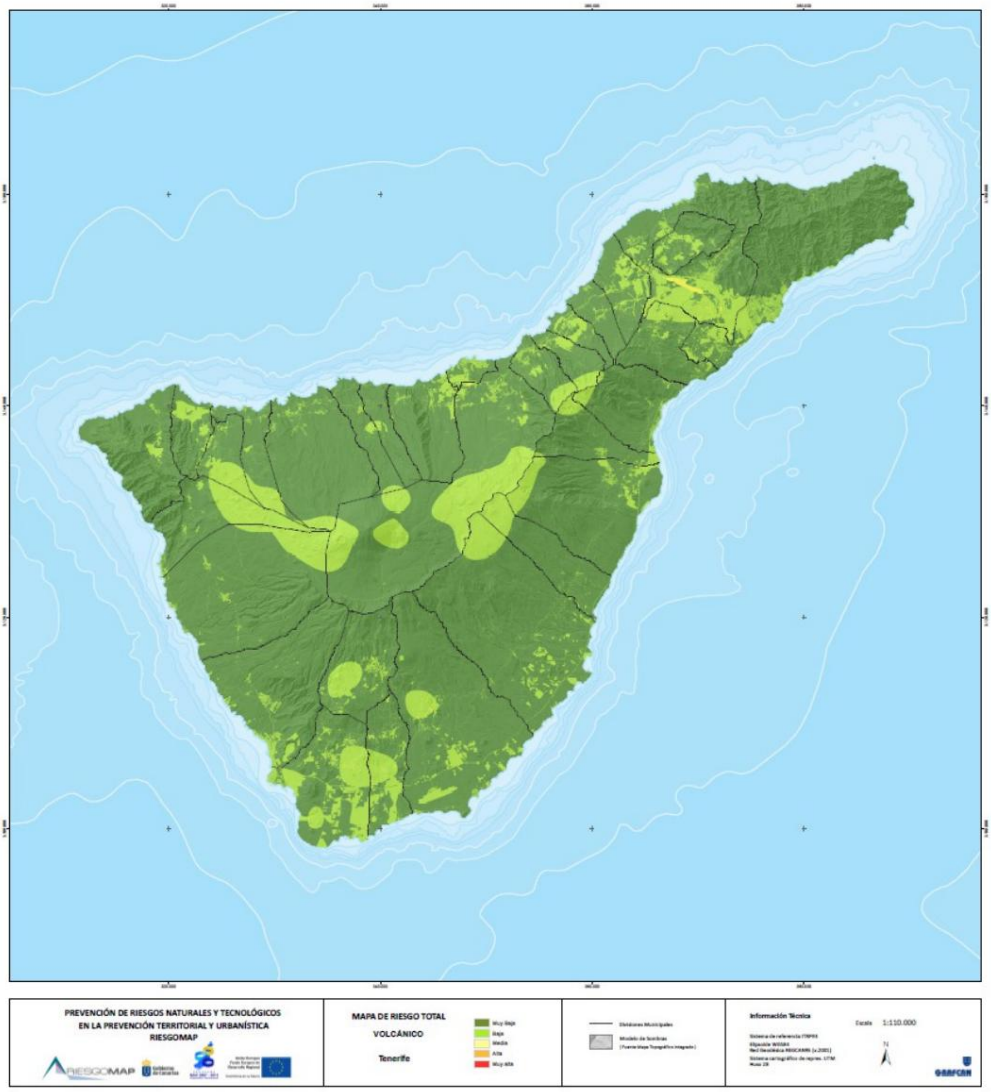
THE PALM



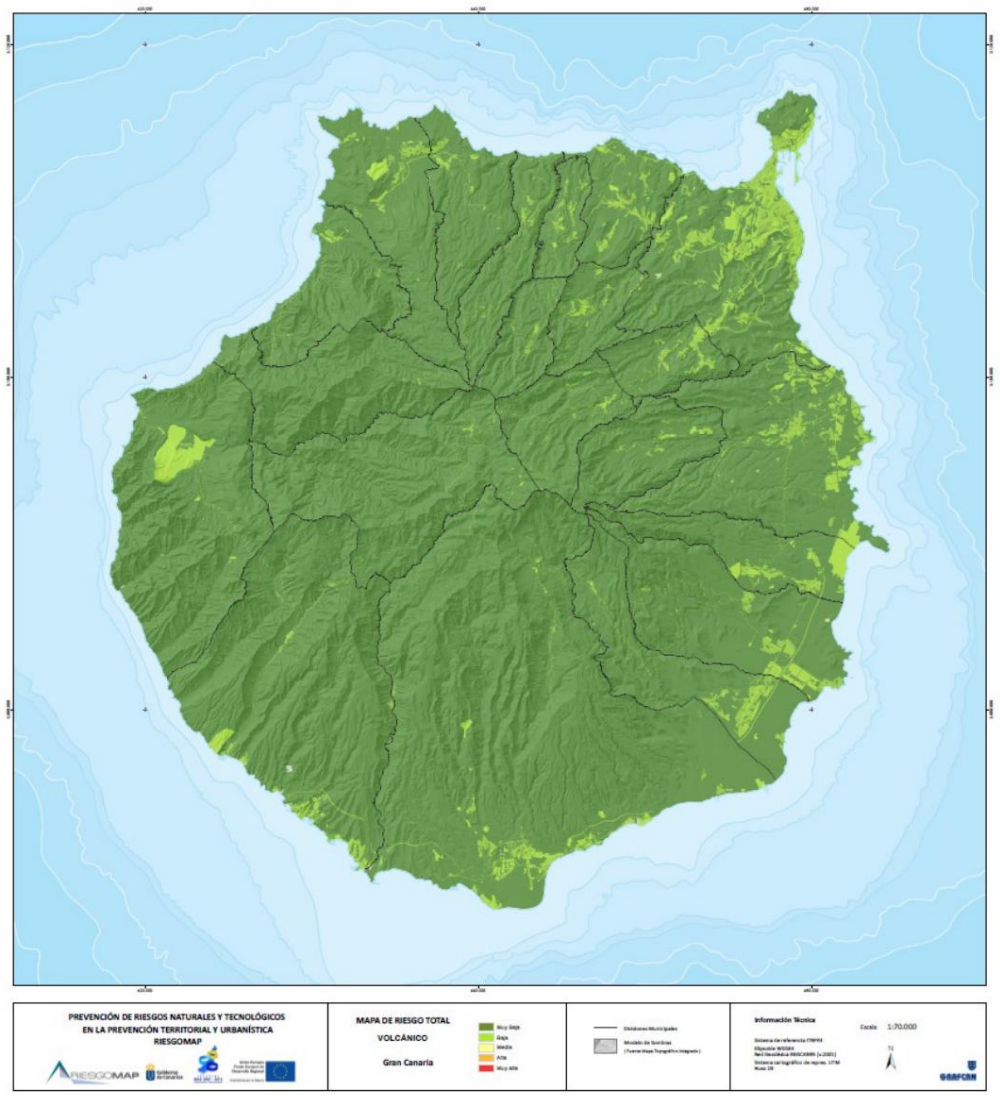
LA GOMERA



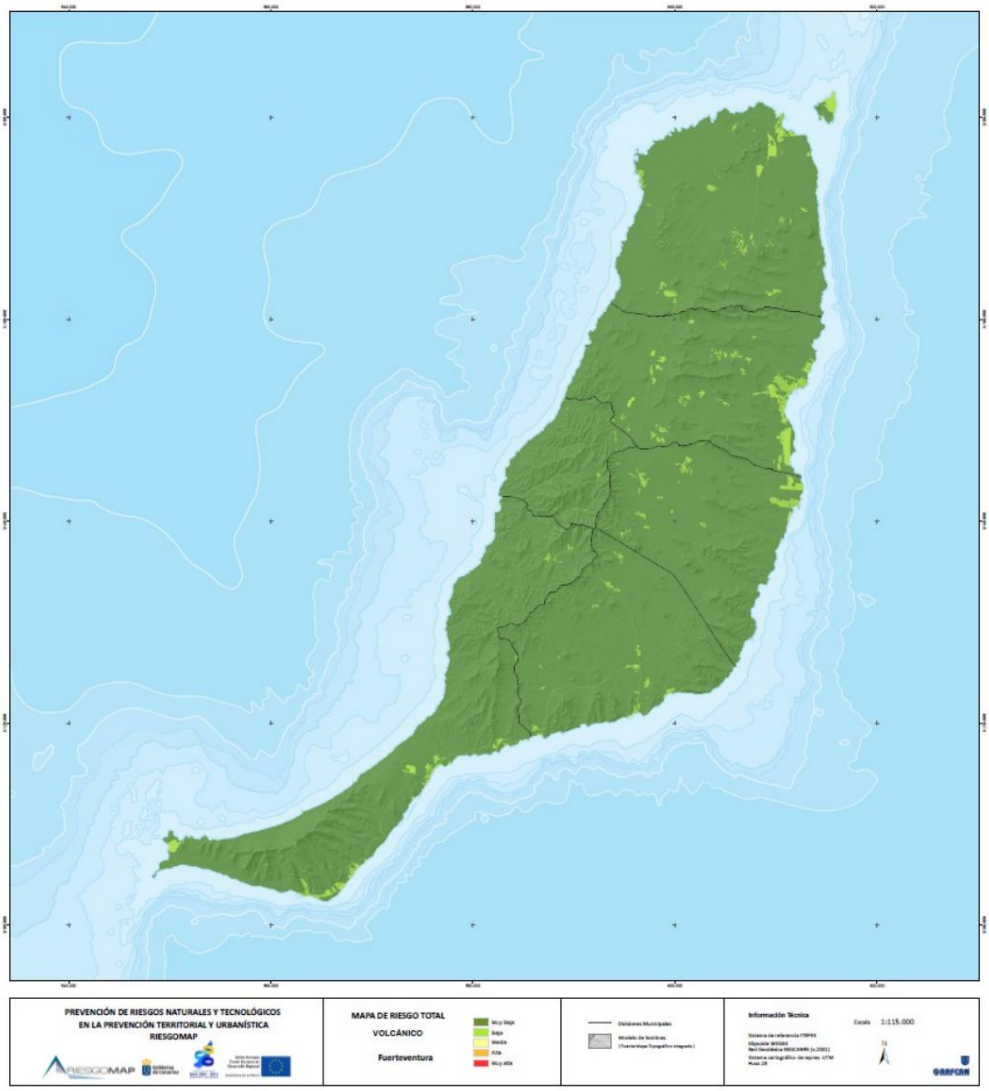
TENERIFE



GRAND CANARY



Fuerteventura



LANZAROTE