

DROUGHT RISK AND IT INCLUSION ON CIVIL PROTECTION PLANS

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Although other countries contemplate the risk of drought between the catastrophic episodes to consider, in Spain the implication of Civil Protection in any competential scope with respect to the droughts has been disappearing with the passage of time. The fact of being hardly predictable episodes and their slow gestation, quite to the contrary of which it happens with gales, snowfalls or intense rains, has much to do with the root of this problem.

One of the main allegations is that «these episodes no longer are cause of death and abandonment of the territory» (González López, S. and Lorente García, J. 2002). Nevertheless gales, forest fires and volcanic eruptions have specific plans and they are not cause of death or abandonment of the territory either. We do not have to forget that the risk is defined as the existence of a danger able to produce damages or losses and, therefore, the drought is it and in extreme degree. In addition, one critic and prolonged situation can derive in other risks from sanitary type, epidemiologist, environmental, socioeconomic, fitosanitary, etc., that will have to be attended by emergency services like 112 or, in general, any Center of Operative Coordination (CECOP).

For this reason, among other questions, the risk of drought must be included within the national system of Civil Protection from the first step of its attributions to the last, that is, from the foresight to the final rehabilitation, with the necessary participation of other public administrations and institutions as they are the National Institute of Meteorology (INM), the Hydrographic Confederations and other basin organisms, the national, regional and local governments, the Geologic and Mining Institute of Spain, etc. This perception was very clear in 1983 on the part of the Spanish government presided by D. Felipe González when the Emergency Drought Special Plan was approved to palliate the one of period 1979-1983 mainly, in which there was assigned to the General Direction of Civil Protection the work of coordination of the proposed measures. This Plan, called with the sensationalist and unfortunate name of «Red Water», was born in addition with the character of basic norm for

the obligatory development to the corresponding provincial emergency plans. It was therefore a Director Plan and not a simple provisional disposition to save a conjunctural situation. Unfortunately, this plan came to the light —like it happened with the later Metadrought Plan— at the end of a dry sequence, reason why it did not have too much repercussion. It is more, two years later the whole Spanish system of Civil Protection was restructured with the Law 2/1985 and R.D. 407/1992 (Basic Norm), forgetting the drought and leaving it outside the frame of a special planning.

But in spite of this failure, the relation between Civil Protection and this type of catastrophic natural phenomena continues existing, and proof of this is that the Territorial Emergencies Plan of the region of Murcia recognizes that, in extreme situations, it will be necessary to decree situations of drought emergency. Xunta of Galicia government, on the other hand, approves in 2002 a Specific Plan against situations of drought, elaborated under the management of Civil Protection, so that, retaking the state arguments of 1983, assigns to the General Direction of Interior and Civil Protection of the Xunta of Galicia the global coordination of the measures adopted by the plan.

The structure of a specific plan —from the perspective of Civil Protection— does not have to vary with respect to the special plans described in the Basic Norm. The main disadvantage is that, not existing a Basic Directive for the drought risk, we do not have reference criteria or basic premises to its elaboration, although we can adapt the scheme to another risk of hydrometeorological nature as the Basic Directive for the floods risk. Consequently, we have a Territorial Plan in which the drought emergency plan must be framed, and on the other hand we have a guide taken from another risk of similar characteristics in which we only must include the corresponding contents. This plan would have to consist at least of the following sections:

1. Territorial Information: there will be described the climatic features, the population distribution, the most outstanding geological structures, the hydrologic information of the water-bearings, the existence of desalination plants, the most important nets of water distribution for urban consumption and irrigation, the vegetation and the uses of the soil, and the industrial processes that consume more water resources.
2. Typology and classification of the droughts: describing and identifying on the territory the climatic or meteorological drought, hydrological, agricultural and urban or socioeconomic.
3. Analysis and zonification of the risk: it will be necessary to take into account not only the frequency and repetition of the episodes of drought, but also the duration, the historical maximum intensity, the hydric resources available, the population density, the sectors of economic activity and power production based on the water (nuclear power plants, thermal, hydroelectric...), etc.
4. System of foresight and monitoring: it will allow to adopt the measures of suitable protection and prevention with the sufficient anticipation at the time of greater incidence of the drought, as well as to control the administration of the hydric resources, in order to minimize as possible the impact of the phenomenon.
5. Definition of phases and situations of emergency:

- a) Phase of preemergency: it would begin from the first indications based on the analysis of the pluviometric records and its effects on the water-bearings.
 - b) Phase of emergency: the low level of the pluviometric records, the notable decrease of the level of the reserves and its impact on the economy, the society and the environment will allow us to speak of drought.
 - I) SITUATION 0: the first effects are imminent inside the area considered by the plan. It is stated at least the beginning of the climatic drought.
 - II) SITUATION II: the drought is perceptible for almost the whole population and it is of character climatic, agricultural, hydrological and urban, with very restrictive cuts on the water supplies. The negative effects are generalized in the economy and the environment. It is stated the beginning of the urban drought in the big cities.
 - III) SITUATION III: the situation of drought and its repercussion on the population, its goods and the environment forces to the State to declare the national interest.
 - c) Phase of normalization: the arrival of new rainfalls and the normalization of the hydrological cycle allow the recovery of the water-bearings and the end of the restrictions and, progressively, of the rest of emergency measurements adopted before.
6. Structure and organization of the plan: will be indicated the designation of the director of the plan and the people in charge and components of the different groups of action.
- a) Direction of the plan: representative of the government who will carry out this responsibility, between whose functions will be to activate the plan, to constitute the Center of Operative Coordination (CECOP) and to declare the phase and situation of the emergency that corresponds to the gravity of the drought.
 - b) Operations Committee or Assessment Committee, in which the people in charge of Civil Protection and other public organisms and administrations will be integrated. They will carry out the instructions that the Director of the Plan reports to them.
 - c) Press or Information Office: it will facilitate the available information to the mass media and will spread the recommendations to the population through all the available channels.
 - d) Center of Operative Coordination (CECOP): there will be established the identity and location of the communications center that will exercise the work of transmission and reception of emergency calls, coordination of the interventions, evaluation and amplification of the information, location and putting in service of means and resources, reports, etc.
 - e) Advanced Control Place (PMA): the characteristics of a drought emergency will make unviable the establishment of a PMA. In case it was necessary the plan will established its location, direction and composition.
 - f) Groups of Action, that, like in all plans, are five: Intervention Group, Sanitary Group, Security Group, Logistic Support Group and Social Action Group.

