

# Lessons from the 2010 floods on the Atlantic coast (Xynthia) and in the Var

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# Two natural disasters and terrible human tragedies in 2010

- In the night of 27-28 February : sudden and extensive marine flooding, provoked by the storm Xynthia, on the Atlantic coast, especially in the *départements* of Vendée and Charente-Maritime. 41 deaths (29 in La Faute-sur-Mer).
- 15 June : flash river floods and run-off generated by exceptional rainfall in the towns and villages of the region of Draguignan in the Mediterranean *département* of Var – 23 people dead (9 in Draguignan) and two reported missing.
- Total : 64 people dead and two reported missing. In addition, hundreds of people have been injured, have lost their homes and all their belongings.
- Huge damages for individuals and for the collectivities.

# Audit objectives

- Establish the financial costs of these disasters.
- Assess the management of flood risk, i.e. the actions engaged by the public authorities before the disasters to reduce the risks or their adverse consequences:
  - Risk information;
  - Population warning systems;
  - Flood prevention in urban development;
  - Protection against the flood in the inhabited areas.
- Assess the actions decided since the disasters and the remaining gaps.

# Audit challenges

- Huge field of investigation and necessity to control many public entities (over 50).
- Necessity to work with regional Chambers of account. The Court of accounts controls the governmental authorities and the State's administration, but not the local authorities, which are controlled by the regional chambers of account.
- Necessity of similarly controlling public bodies and their possible failings, and assessing public policies.
- Necessity to control what happened in each of the 3 *départements*, with many angry victims, and to make a national synthetic audit. Similarly, specific scopes and broad approach.
- Importance of a good information of the citizens about the conclusions of the report.

# Solutions

- Creation of an interjurisdiction structure, with members issued of the Court of accounts and of three Regional chambers of accounts (Poitou-Charentes, Pays de la Loire, Provence-Alpes-Côte d'Azur).
- Control team : 2 *conseillers maîtres* (head counselors) of the Court and 3 counselors issued of the Regional chambers. It was a kind of cooperative audit, but with the friendly authority of the two head counselors.
- Three territorial reports, one for each concerned *département* (Charente-Maritime, Vendée, Var), and a national synthetic public thematic report.
- Presentation of the reports to the medias in press conferences. Public thematic report available on the internet page of the Court. Public presentation of the territorial reports in the elected assemblies of the local authorities.

# Main findings – costs and generalities

- The financial cost of the crises is considerable : about €660 million of public credits and more than €1.3 billion of insurance payments, including €640 million supported by the major natural risk prevention fund, which benefits from the State guarantee.
- The disasters have affected vulnerable areas, where continuously growing human settlements and urbanization have significantly increased the risks and where the desire of people to construct habitations is very strong. This desire is encouraged by the property developers and supported by the mayors and the local elected officials.
- A serious lack of risk culture (awareness) in these areas. The similar disasters which have occurred in the past were forgotten.

# Main findings – Prevention

The wisest approach to protecting human lives and the least expensive is to prevent construction in non-urbanized high risk areas. But the audit shows :

- 1.-An insufficient control by the State representatives of the desire to build of ever-increasing populations. Before the crisis, the prefects were often weak in facing the local pressures and did not oppose construction projects in high-risk areas. Specific cases were examined in La-Faute-sur-Mer and Fréjus.
- 2.-A failing information concerning the risks : flood hazard atlases not distributed to the communes or insufficient in their content; communal information and prevention documents on the major risks not available in the majority of the communes; information for buyers and tenants (IAL) incomplete and not updated,...

# Main findings – Prevention

- 3.-Flood risk prevention plans were not prescribed by the State's representative in all hazardous areas, or not adopted because excessive prolongation of the proceedings due to local oppositions, or were insufficient in their content so that the potential of urbanization was not really constrained even in high-risk areas.
- 4.-Since the crisis, a new determination, encouraged by the government, is expressed by the prefects concerning all the matters of prevention and the interdiction of constructions in hazardous areas. Flood risk prevention plans must be adopted in the most dangerous areas within three years after the disasters.
- 5.-For an efficient policy of risk prevention, this determination must continue in the long term and actions must be conducted at their end.

# Main findings - Warning

The population warning system is essential to avoid human tragedies, and it is economical, because a good warning system can be very effective for a limited cost :

- It was very imperfect before the catastrophes.
- It has been improved since, but much remains to be done. For example, the high-performance network to alert the population remains to be created.

# Main findings - Protection

- On the Atlantic coast, the situation of the flood defences on the eve of the disaster was very disturbing: very poor governance (in many cases, unknown owners and/or unknown responsible authority for maintaining the dike...) and poor maintenance of these dikes, the two being linked
- In the Var, no public authority was responsible for the maintenance of the affected rivers, which are non-government owned and belong to the riverside landowners, unable to realize this maintenance.
- Since then, efforts have been made, in accordance with the “rapid submersion plan” decided by the government, but the governance of the dikes and rivers remains to be put in order and the work to consolidate the dikes definitively, after the emergency work, will need time.

# Main findings – Purchase of houses

- After the disasters, the President of the Republic decided the purchase by the State of the houses in the most dangerous areas on the Atlantic coast.
- It could have been a positive action according to the principles of sustainable development, by not trying to protect human settlements in too dangerous areas and by freeing these areas from the settlements. But the action was badly conducted.
- Too much precipitation in the delimitation of the so called solidarity areas (the first name was “black areas”), where the houses had to be bought. Negative reactions of the concerned people.
- The precipitation of the early decisions had adverse consequences, with approximations, compromises, or even irregularities, and ultimately redundant or unnecessary public expenses.
- A coherent policy remains to be defined for the most dangerous areas on the French coast.

# Recommendations

- **46 very actual recommendations to the central government and its representatives as to the local authorities, especially the communes, in the fields of warning, prevention, protection, indemnification.**

## **Main ideas :**

- **The French State has to carry on, with determination against the local pressures, the measures decided after the crisis to prevent the risk and to protect inhabited areas;**
- **In accordance with the European Directive of 2007 on the management of flood risks, the French government has to define a national strategy against this risk and to put it in a concrete form as soon as possible, with an active involvement of all the interested parties.**

# Impact

- Many papers in the press. Increased public awareness.
- In the three *départements*, many actions of the State representatives and the local authorities to correct the shortcomings pointed out in the reports and which could be corrected. For example, distribution to local authorities of all the existing flood hazard atlases; adoption by the prefects of flood risk prevention plans in the most hazardous areas despite local oppositions; updating of the flood risk information in Var.
- On national level, adoption in February 2011 of the already evoked “rapid submersion plan” and acceleration of the implementation of the European Directive.
- Better taking in consideration of the principles of sustainable development.



**Thank you for listening !**