



**EUR-OPA MAJOR  
HAZARDS AGREEMENT**

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OPEN PARTIAL AGREEMENT ON THE PREVENTION OF, PROTECTION AGAINST AND  
ORGANISATION OF RELIEF IN MAJOR NATURAL AND TECHNOLOGICAL DISASTERS

**COMPARATIVE ANALYSIS OF THE  
INTERMINISTERIAL MANAGEMENT OF MAJOR HAZARDS**

**BELGIUM**

**FRANCE**

**RUSSIA**

**BULGARIA**



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## Contents

Preface

Introduction

**Chapter 1 : European Union :**

Directives on industrial risk management  
Communication on flood related risks

**National level :**

**Chapter 2 : Belgium**

1. Introduction
2. Competent authorities
3. Co-ordinating authorities
4. Organisation of risk management
5. Strengths and weaknesses
6. Conclusions
7. Legal references

**Chapter 3 : France**

8. Introduction
9. Competent authorities
10. Co-ordinating authorities
11. Organisation of risk management
12. Strengths and weaknesses
13. Conclusions
14. Legal references

**Chapter 4 : Russia**

15. Introduction
16. Competent authorities
17. Co-ordinating authorities
18. Organisation of risk management
19. Strengths and weaknesses
20. Conclusions
21. Legal references

**Chapter 5 : Bulgaria**

22. Introduction
23. Competent authorities
24. Co-ordinating authorities
25. Organisation of risk management
26. Strengths and weaknesses
27. Conclusions
28. Legal references

**Chapter 6 : Comparative analysis : Findings and Recommendations**

**Conclusions**

Appendix 1 : List of recommendations

Appendix 2 : Proposed model for a global risk management plan

Appendix 3 : Bibliography

## **Preface**

*Three quarters of this study had already been completed when news reached us of the tsunami disaster in Asia on 26 December 2004.*

*It reminded me of another disaster that shook Belgium, also at the height of the holiday season: a major gas explosion in Ghislenghien, on 30 July 2004.*

*It was certainly the media coverage, the fact that both events were attributed to 'fate' striking once again, and the indignation I felt when I saw the pictures, that made me draw a parallel between the two events.*

*One might attribute it to chance that two examples of the types of hazard I had chosen in order to illustrate the interministerial aspect of major hazard management should occur in that short space of time. But the reason I chose floods and industrial hazards was precisely that, statistically, they are the greatest threats in most countries and those which take the greatest toll in terms of human lives.*

*What parallels can be drawn from a rapid comparison between Ghislenghien and the tsunamis? First, the lack of information on existing dangers and hazards. In Ghislenghien the emergency services were called out to investigate a lingering smell of gas and went to the scene with no other information, without knowing what measures they could and should take, a lack of information that made them the first victims of the explosion; and in Asia the alert was only given by the general panic once everything had been flooded.*

*The first event was a technological accident, the second a natural disaster: two events that have only loss of life and the shock to public opinion in common? No, there are many other similarities.*

*In both cases there was a dangerous situation: the sea or nature as a living organism on the one hand; the use of dangerous substances on the other. In both cases human beings were exposed to danger, and it was this exposure that made damage likely if ever an accident, such as an earthquake or an explosion should strike.*

*The presence of the gas pipe in Ghislenghien was known, as was the fault line in the ocean. So information about the risks was available, but not to the people most likely to be affected. The Fluxys gas company and various authorities were aware of the exact location of the pipe and of the works in progress in the vicinity; American and Australian scientists recorded the earthquake 2 to 4 hours before the waves hit the coastlines ... Nobody, not the coastal authorities, the local population, the tourists or the fire brigade in Ath, was alerted to what was about to happen.*

*In the light of the above, it is difficult to attribute the ensuing disaster to fate alone.*

*Then came the rescue operations and the immense wave of solidarity, as impressive as it was touching.*

*Without going into details, certain conclusions are obvious:*

- *the right information "in the right place" could certainly have prevented the accident in Ghislenghien, or at least limited the damage caused;*
- *the right information "at the right time" could not have averted the natural phenomenon in Asia, but could certainly have avoided it degenerating into such a disaster;*
- *in apocalyptic situations, rescue operations, if well prepared, planned, managed and co-ordinated, can be remarkably effective;*
- *both the explosion in Ghislenghien and the disaster in Asia struck a vibrant chord, giving rise to a show of solidarity and mobilising efforts to put things right.*

*The efforts mobilised after the event were impressive. What if as much energy had been mobilised before disaster struck?*

*What if determination – information – collaboration were the keys to preventing such disasters from happening in the future? Co-ordination, particularly of information, was already the key conclusion reached in a comparative study carried out in 2002/2003 at the request of the Council of Europe under its EUR-OPA Major Hazards Agreement. It was also the starting point of this more detailed look at interministerial management. What if we now paid homage to the hundreds of thousands of victims of 2004 by mobilising our determination ...?*

*Kathleen Van Heuverswyn  
January 2005*

*It is not so much the natural rhythms of water courses  
that are to blame for flooding,  
but rather our socio-technical and cultural models.*

Hubert Seillan  
Préventique Sécurité 75, 2004/5

*There is disorder in system structures:  
work on the thermodynamics of living systems  
shows that far from being destructuring factors,  
disasters are instrumental in their structure and their development.*

Frédéric Malaval,  
Préventique Sécurité 75, 2004/5

## Introduction

In 2002-2003, a comparative analysis of legislation on major hazard management was carried out by the Higher Institute for Emergency Planning (ISPU)<sup>1</sup> at the request of the Parties to the Council of Europe's EUR-OPA Major Hazards Agreement.<sup>2</sup>

The aim of the study was to take stock of what existed, in law and in practice, in the 26 states Parties to the Agreement<sup>3</sup> in terms of major hazard prevention, management, rehabilitation, sanction and control.

Several questionnaires were sent to the permanent correspondents of the member states of the Agreement, covering the following ground:

- II. Inventory of the major hazards facing the country<sup>4</sup>
- III. Major hazard prevention
  - a. Competent authorities
  - b. Consultation bodies
  - c. Emergency planning
  - d. Preventive information for the population
- IV. Crisis management
  - a. Competent authorities
  - b. Alert
  - c. Communication in a crisis
  - d. Operational forces
- V. Rehabilitation
  - a. Competent authorities
  - b. Compensation of victims
- VI. Sanctions and monitoring
  - a. Competent authorities
  - b. Sanctions

Four broad conclusions were reached:

1. **a highly complex distribution of powers and responsibilities:** a plethora of players, at the national, regional and local levels and, as a result, a plethora of texts;
2. **a lack of co-ordination and of an integrated approach among the 4 components of risk management:** very efficient organisation of crisis management, thanks to co-ordination, but limited to the crisis management phase; there are no bodies responsible for all aspects of risk management;
3. **little provision for structural rehabilitation:** except in France, which has introduced natural and, since 2003, technological hazard insurance, rehabilitation measures are all too often limited to emergency budgets and resources made available in the emergency conditions immediately following a disaster;

<sup>1</sup> Since 2003, the ISPU (*Institut Supérieur de Plannification d'Urgence*) has operated under the authority of the Crisis Centre Directorate General of Belgium's "Interior" Federal Public Service.

<sup>2</sup> Comparative study of the regulations concerning major risk management in the 26 member states of the Council of Europe's Eur-OPA Major Hazards Agreement, ISPU, Strasbourg, 20 November 2003, Doc AP/CAT (2003)39.

<sup>3</sup> Albania, Algeria, Armenia, Azerbaijan, Belgium, Bulgaria, Croatia, Cyprus, France, Georgia, Greece, Italy, Lebanon, Luxembourg, Malta, Moldova, Monaco, Morocco, Portugal, Romania, Russia, San Marino, Spain, "The former Yugoslav Republic of Macedonia", Turkey, Ukraine

<sup>4</sup> Selected from the following: Natural risks: storms, drought, earthquakes, floods, forest fires, landslides, volcanic eruptions; Technological risks: chemical and industrial, transport and storage of dangerous products; road accidents, marine pollution, nuclear.

4. **few sanctions and monitoring measures:** for a number of reasons that vary from one country to another, there is too little monitoring, often because there are not enough inspectors, with the result that controls are too repressive and not dissuasive enough.

### **Positive findings**

One of the positive findings of the comparative study on major hazard management in the member states of the Council of Europe's EUR-OPA Major Hazards Agreement lies in the considerable efforts that have been made, quite successfully, to improve the efficacy of rescue operations and crisis management. This is the area where the greatest progress has been achieved in recent years, with increasingly swift and effective responses.

Looking more closely at the reasons for this progress, two factors stand out:

- from the **operational** standpoint: **co-ordination**, involving all the players in the preparation of rescue operations, so that they get to know each other and they all know what is expected of them when the time comes;
- from the **legal** standpoint: the achievement here is to have adopted a **horizontal approach** where all the planning, communication and hazard management aspects are addressed for every type of hazard. This may seem obvious today, but it should be remembered that a number of different disciplines (police, emergency medical assistance, fire brigade, etc) answering to different authorities are involved, so a means had to be found to make them all work together under the authority of a single body.

**The efficiency of their interventions today is almost enough to make us forget that most crisis situations could have been easily avoided instead of efficiently dealt with!**

### **Lack of co-ordination**

When it comes to prevention, however, a look at how risk prevention is organised and the links between risk prevention and crisis management reveals little or no co-ordination. Most countries appear to have stuck to the vertical approach, where each authority has its own powers in its particular sphere of competence.

The competent national ministries in centrally governed states and federal and regional ministries in decentralised states each operate in their own way in their own fields of competence.

Meanwhile, in the provinces, '*départements*', counties, or whatever other name they may go by, and at municipal level, the prefects, governors and mayors are responsible for applying all these regulations and are therefore concerned by all aspects of major hazard management.

The challenge facing us in the future, therefore, lies essentially at the national level and concerns the question: *to what extent and in what way* should the authorities concerned be involved in risk prevention and crisis management *early in the process* in order to *avert* disasters?

From both the organisational and the legal standpoints, the challenge is thus to find the corresponding administrative structure and/or mechanisms at the national level.

Most countries have tried to find solutions, and the previous study identified four models:

- **Interministerial management in law and in practice**

The most common mechanism is interministerial management, mainly involving co-operation between the Interior and Environment Ministries, and occasionally the Ministry



of Health for emergency medical assistance, or other ministries for their specific competences. It may have legal status or simply exist *de facto*.

Examples **with legal status** include the State Secretariat for Security which existed in Belgium and the Sustainable Development Secretariat in France.

An example of ***de facto*** co-ordination is the role assigned to the Government's Crisis Centre in Belgium. It is a *de facto* role because the law assigns no specific powers of co-ordination to this Centre in particular. It is through a series of supplementary (and voluntary) initiatives deemed necessary for it to assume its legal responsibilities that the Crisis Centre has imposed itself in practice as a key player in co-ordination. There is also the centre's infrastructure and the fact that the other Ministries have no crisis management structures of their own, which obliges them to rely on the Crisis Centre.

#### ▪ **Special Ministry**

A second option is to set up a special Ministry with all the requisite powers and skills for hazard control. Russia's **EMERCOM** (Emergency Management Committee) is the epitome of such a ministry.

#### ▪ **State agency and Standing Committees**

A third option is to set up an Agency, answerable to the Prime Minister or the Minister of the Interior, to which the government delegates major hazard management. Unlike Emercom, where such an Agency exists the competent ministries keep all their powers but second representatives to the Agency, to work with staff seconded from other ministries, each in the particular field of hazard management covered by their respective ministries. There is an example in Bulgaria, where the Agency is supported by an original system of Standing Committees at every level of government.

There are thus different ways of achieving better co-ordination, rather than one single model.

Existing structures naturally reflect a series of factors specific to each country: they are the result of the country's historical background, a certain form of administrative organisation, budgetary constraints, legal tradition and a multitude of cultural factors in the broad sense of the term (central or decentralised system of government, repressive legal system, tradition of voluntary work, role of the military, risk perception and acceptability level, etc).

As a result, these models are not always transposable to other national contexts.

We also found that not a single country is fully satisfied with the present situation: Italy established an Agency but subsequently abandoned that option; Bulgaria is also having doubts; Belgium tested a state secretariat but eventually opted to assign a greater role to the Crisis Centre; in 2003, EMERCOM, in collaboration with the European Commission, took stock of the weaknesses and strengths of this type of organisation; new co-ordination structures were set up in France this summer in a spirit of sustainable development, etc.

Most countries are therefore in search of assessment criteria and ideas for improving the existing system.

This study provides a more detailed analysis that will help to highlight the strengths and weaknesses of the different interministerial approaches to major hazard management in their given contexts, in order to serve as a source of inspiration and suggest means of improving the arrangements now in place.

**Scope of the study: emphasis on risk prevention and crisis management at the national level**

Of the four main findings of the previous study AP/CAT (2003) 39 (complexity; lack of co-ordination; too little rehabilitation; insufficient monitoring), lack of co-ordination always appeared to be the main concern of national representatives attending international conferences where the findings were presented.

This was confirmed at the Ministerial Session of the EUR-OPA Major Hazards Agreement, held in San Marino on 12 and 13 December 2003.

We accordingly decided to focus on this lack of co-ordination and produce a thought-provoking comparative analysis. In order to produce an initial document within a reasonable time lapse, without sacrificing quality, we decided to limit the scope of the study as follows:

- 2 types of major hazard were selected: **chemical hazards** (Seveso<sup>5</sup> in the European Union) and **floods**.  
In most countries these two hazards are not perceived as presenting the greatest threat to the population.
- Emphasis was placed on the links between **risk prevention** and **crisis management**.
- The study focused on organisation at the **national** level.
- Four countries were selected as representing the four models of interministerial hazard management identified in the previous study: **Belgium** and **France** respectively for *de facto* and *de lege* interministerial hazard management, **Russia** for Emercom and **Bulgaria** for its Agency and Standing Committees.

Where other factors appeared relevant to the general hazard management picture, or simply interesting, we have mentioned them but without going into much detail.

**Methodology**

- The groundwork for this study was done by the research, in the previous study, on regulations on major risk management in the 26 member states of the EUR-OPA Agreement, AP/CAT (2003) 39.
- This groundwork was supplemented by more specific research into the machinery of co-ordination, consultation and collaboration.
- A working meeting on 6 and 7 December 2004 was attended by Dr. Socorro Delgado, Ms Daniella Pantova, Ms Françoise Tondre and Col. Lionel Lecléi, respectively for Russia, Bulgaria and the EUR-OPA Agreement.
- Another working meeting was held in Paris on 14 December at the initiative of Mr René Feunteun, Permanent Correspondent of France to the Agreement, and attended by representatives of Interior, Environment and Sustainable Development Ministries.
- A number of national experts were interviewed by telephone or e-mail.
- The descriptions of the organisation of risk management in the 4 countries covered by the study were sent to the respective permanent correspondents for validation.

The present document is simply a first stage in the search for ideas and recommendations to improve interministerial risk management.

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<sup>5</sup> By 'Seveso' chemical hazard we mean the risk associated with the presence of dangerous substances in quantities in excess of certain thresholds, for which a special legal framework has been developed in the European Union following the Seveso Directives.

We have elected to present an initial inventory of the strengths and weaknesses of the co-ordination mechanisms in the four countries concerned and to consult a broad spectrum of experts to add to the information and ideas collected and take them a stage further.

This present document should accordingly be considered as a working document or a discussion paper, rather than a final report.

In spring 2005 it will be sent to experts in government departments, European and international organisations, universities and so on, in order to maximise feedback and suggestions.

All these results will be presented at a workshop in Florival in autumn 2005.

The whole process (this discussion paper, the feedback from the experts, the outcome of the workshop in Florival and the resulting conclusions) will be the subject of a final report to be published at the end of 2005.

### **Structure of the study**

The first chapter explains some points of Community law on the subject.

Chapters 2 to 5 describe the situation in each country and list the strengths and weaknesses identified. This classification of strengths and weaknesses is by no means intended as a judgment of the intrinsic value of the factors identified, but simply an appraisal related to the purpose of this analysis, which is to investigate machinery at the national/federal level for co-ordinating the different components of risk management.

Chapter 6, the comparative analysis, takes these strengths and weaknesses and examines the lessons and avenues of thought they suggest.

\*

*While it is necessary that each of the components  
should tend towards its own objectives,  
they must also take into account the more fundamental purpose  
of the organisation of which they are part.*

*...  
It is the junctions that make the intelligence of a system!*

Après le 11 septembre: les charnières et l'intelligence  
(After September 11: junctions and intelligence)  
Hubert Seillan, June 2002

## **Chapter 1 : Risk management at European Union level**

### ***The Seveso Directives***

The most important European directive at present is Council directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances,<sup>6</sup> known as the Seveso directive.<sup>7</sup>

It has generally obliged member states to make sure that all the competent authorities are involved in the management of major accident risks involving dangerous substances.

In the specific field of emergency planning, the first Seveso directive 82/501/EEC, dated 24 June 1982, forms the basis for regulations on the subject in most of the then 15 European Union member states (with the exception of France, which already had a legal framework from which much of the inspiration for the obligations enshrined in the directive was drawn).

It is an excellent example of the horizontal approach, a single document regulating all the main aspects of one specific risk which has ramifications in different spheres of competence: the directive is aimed at preventing major accidents and limiting their human and environmental consequences; this includes:

- obligations incumbent on operators (general obligations, notification, authorisation, prevention policy, domino effect, safety report);
- need for internal and external emergency plans;
- controlled urban development;
- information concerning safety measures;
- inspection;
- exchanges and information system.

We shall see in the descriptions of the transposition of this directive in Belgium and France that the member states – in addition to measures to conform with the obligations imposed – have sought to remain faithful to the spirit of the directive and made efforts to bring together the authorities concerned (through co-ordination and consultation procedures and structures) so that each of them contributes in its own field of competence to the wider common objectives.

### ***Seveso versus IPPC***

The IPPC Directive does not apply to the risks we are concerned with in this study, but it is worth mentioning in order to show the difference in the approaches to accident risks and continuous risks, such as those related to pollution.

Council Directive 96/61/EC of 24 September 1996<sup>8</sup>, known as the IPPC Directive<sup>9</sup>, aims at the integrated prevention and control of pollution from the activities appearing in Appendix I, and provides for measures to avoid or, when that is not possible, to minimise emissions from the activities concerned into the air, water and soil, including waste management, in order to achieve a high level of protection of the environment as a whole.

This directive calls for proper co-ordination of authorisation procedures and conditions between the competent authorities to protect the environment as a whole, in a spirit of sustainable development, not only for a particular type of risk but for all emissions potentially harmful to the air, water or soil:

<sup>6</sup> OJ L010 of 14.01.1997, p. 13-33

<sup>7</sup> So named after the Seveso accident in Italy, in response to which the first Seveso Directive was adopted

<sup>8</sup> OJ L257 of 10.10.1996, p. 26-40

<sup>9</sup> Integrated Pollution Prevention and Control

7. Whereas **different approaches** to controlling emissions into the air, water or soil separately **may encourage the shifting of pollution** between the various environmental media rather than protecting the environment as a whole;

8. Whereas the objective of an **integrated approach** to pollution control is to prevent emissions into air, water or soil wherever this is practicable, taking into account waste management, and, where it is not, to minimize them in order to achieve a high level of protection for the environment as a whole;

9. ... whereas application of the principle of **sustainable development** will be promoted by an integrated approach to pollution control;

Seveso brings together the competent authorities to achieve a dual objective broader than their respective spheres of competence, while IPPC imposes a genuinely integrated approach. IPPC calls not only for the identification of the competent authorities but also for co-ordination of their activities.

#### Art. 16 Seveso Directive

*Without prejudice to the operator's responsibilities, Member States shall **set up or appoint** the competent authority or authorities responsible for carrying out the duties laid down in this Directive and, if necessary, bodies to assist the competent authority or authorities at technical level.*

#### Art. 7 IPPC Directive

*Member States shall take the measures necessary to ensure that the conditions of, and procedure for the grant of, the permit **are fully coordinated** where more than one competent authority is involved, in order to guarantee an effective integrated approach by all authorities competent for this procedure.*

#### Art. 8 IPPC

*... All permits granted and modified permits must include details of the arrangements made for air, water and land protection as referred to in this Directive.*

IPPC thus achieves integration both horizontally and vertically:

- horizontally by requiring co-ordination of the competent authorities' work;
- and vertically by centralising specific measures for each type of risk in a single procedure.

### **Floods**

On 12 July 2004 the Commission published a **Communication** of the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of Regions entitled "**Flood risk management – Flood prevention, protection and mitigation**"<sup>10</sup>.

A communication is not a binding document for the member states. It serves mainly to communicate the Commission's policy to the other European institutions, thus indicating trends in community policy on flood risk management.

It defines the aim of flood risk management as minimising the likelihood and/or impact of floods, which entails both prevention and protection/management.

The approach suggested as being the most effective involves the development of flood risk management programmes which include prevention (avoiding risk exposure), protection (minimising the likelihood and/or impact of flooding), preparedness (informing the population), emergency plans (specifically for floods) and recovery and taking stock of the lessons learnt.

<sup>10</sup> Brussels, 12.07.2004, COM (2004) 472 final

It is suggested that the member states and the Commission work together to develop and implement a concerted flood prevention, protection and mitigation action programme, the main features of which would include:

- a) improving **co-operation and co-ordination** through the development and implementation of flood risk management plans for each river basin and coastal zone where human health, the environment, economic activities or the quality of life can be negatively affected by floods;
- b) developing and implementing flood risk maps as a tool for planning and communication;
- c) improving **information exchange, sharing of experiences and the co-ordinated development and promotion of best practices**;
- d) developing **stronger linkages** between the research community and the authorities responsible for water management and flood protection;
- e) improving **co-ordination** between the relevant Community policies;
- f) increasing awareness of flood risks through wider stakeholder **participation** and more effective communication.

**5 of the 6 forms of action concern co-ordination, the exchange of information or participation by the players concerned by specific aspects of risk management.**

\*

*Would better capitalising on and sharing of knowledge  
not help stakeholders in risk prevention  
to progress faster and at a lower cost?*

Ghilaine Guimon,  
of the Ministry of Ecology and Sustainable Development  
Préventique Sécurité 75, 2004/5

*... We must not expect technology to solve everything:  
whatever the density of the information input required to understand these phenomena,  
we must first and foremost **increase our capacity of interpretation***

*Unlike a number of other international players  
who are trying to put all safety measures into the hands of a single body,  
we believe it is preferable for all those active in risk control,  
whatever their ministry of attachment or even their industry,  
to bear in mind the concept of global security,  
**feel that they are part of a whole and, accordingly,**  
**work in a spirit of complementarity.***

Terrorist threats, emerging risks and global security –  
The responsible and determined message of Jean-Marc Berlioz,  
Director of INHES  
Préventique Sécurité 74, 2004/3



## **Chapter 2 : Major risk management in Belgium**

### **Risk prevention and crisis management**

#### **1. Introduction**

##### ***Organisation of government in Belgium***

Until 1970 Belgium could be regarded as a centralised country, in which all administrative tasks were handled by central government.

However, it had already gone through the beginnings of a process of decentralisation in that the 1831 Constitution had entrusted subordinate tiers of government (in particular the provinces<sup>11</sup> and the municipalities<sup>12</sup>) with the task of attending to the public interest within their areas. The municipalities and, to a lesser extent, the provinces were so independent that they were sometimes referred to as a “fourth power” in Belgium alongside the three constitutional powers - the legislative, the executive and the judiciary.

Since 1970, Belgium has gone through successive stages of constitutional reform (in 1970-71, 1980, 1988 and 1993) which have changed it into a federal state.

In addition to its federal government, it now has three Communities (French, Flemish and German-speaking) with what are referred to as “person-related” powers and three regions (Wallonia, Flanders and Brussels) with powers in matters relating to their geographical areas.

As a result of these reforms and apportionment of powers and responsibilities between various tiers of government, the organisation of public services in Belgium has become somewhat complex, and major-risk management is no exception to this.

Whether in relation to exclusive, shared or concurrent powers, it should be noted that there is no hierarchical distinction between the different levels (federal government, regions and Communities).

Risk management is primarily the concern of the federal government and the three regions. With regard both to floods and to chemical hazards, three main areas of responsibility can be identified:

- environmental protection, which is a regional responsibility, covered by the regional environment ministries;
- protecting the public, which is a federal responsibility, covered by the Federal Public Service (FPS) for Home Affairs, which is responsible for emergency planning and crisis management;
- protecting workers, which is a federal responsibility, covered by the Employment and Labour FPS.

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<sup>11</sup> Provinces have general jurisdiction over risk management under section 128 of the Provinces Act: *“In the provinces, governors shall ensure that law and order - in other words, public peace, safety and health - are preserved.”*

<sup>12</sup> The municipalities have general jurisdiction over risk management under section 135, paragraph 2.5 of the Municipalities Act, including *“the duty to prevent, by appropriate precautionary measures, and to bring an end, by organising the necessary relief, to accidents and disasters such as fires, epidemics and epizootic diseases.”*

Sometimes, where powers are shared, different tiers of government have to negotiate co-operation agreements. This is particularly true of major industrial risks, the arrangements for which will be described in more detail below.

### **Definitions**

Major-risk management is a relatively well established item of terminology, but it is not a legal concept in that it is not used in so many words in current legislation.

The term “risk prevention” is used in regional legislation on the environment relating to questions such as pollution and natural disasters and in federal legislation on safety at work (now referred to as wellbeing at work) while the term “crisis management” is used in federal legislation on civil protection, where the key concepts are those of major disaster, disaster and major accident:

**Royal Decree of 23 June 1971 on civil protection and operational co-ordination in response to major disasters, disasters and major accidents, Article 1:**

*“major disasters, including cyclones, hurricanes, tidal waves, earthquakes, and serious or widespread floods or water shortages;*

*disasters, including railway accidents, aircraft crashes, burst dykes, serious or widespread accidental contamination or pollution and, more generally, any accident that causes or may cause major loss of human life or physical damage;*

*major accidents, including fires, explosions, landslides, subsidence, burst mains or reservoirs and road accidents requiring the use of special equipment.*

In 1988, the concept of crisis was introduced by the **Royal Decree of 18 April 1988 founding the Government Co-ordination and Crisis Centre:**

*“Article 2, §1. For the purposes of this decree, the word “crisis” shall be understood to mean any event which, by its nature or its consequences:*

- 1. threatens the nation’s vital interests or the population’s basic needs;*
- 2. calls for urgent decisions;*
- 3. and requires the coordination of various departments and bodies.*

*§2. “The nation’s vital interests and the population’s basic needs” shall be understood to mean:*

- 1. public order, in other words public peace, health and safety;*
- 2. the country’s socio-economic potential;*
- 3. national sovereignty and the institutions established by the Constitution and the laws;*
- 4. the territorial integrity of the nation.*

*§3. A crisis is national where the threat originates on national territory or must be combated using mainly national resources. A national crisis shall not rule out international co-ordination of the steps to be taken.”*

The **Royal Decree of 31 January 2003 establishing an emergency plan for crisis events or crisis situations requiring national co-ordination or management** (known as the Phase-4 royal decree) divides the planning and management of crises into 4 phases:

- “- phases 1 and 2: local co-ordination (general and specific municipal plans such as prior intervention plans);*
  - phase 3: co-ordination at provincial level by the governor (general and specific plans such as the Seveso plans);*
  - phase 4: national co-ordination by the Ministry of the Interior.*
- ... In the event of an accident, major disaster or disaster affecting several provinces, phase-3 provincial co-ordination shall generally be replaced by phase-4 national co-ordination.”*

In the **Co-operation Agreement on Major Accidents involving Dangerous Substances**<sup>13</sup>, a “major accident”<sup>14</sup> is defined as: *“an event such as a major emission, fire or explosion resulting from uncontrolled developments during operation of an establishment covered by this co-operation agreement, posing a serious immediate or delayed threat to human health inside or outside the establishment or to the environment and involving one or more dangerous substances.”*

In connection with the prevention of major accidents involving dangerous substances, the co-operation agreement defines **risk** in the same terms as the Seveso Directive, ie as *“the likelihood of a specific effect occurring within a specified period or in specified circumstances”*.

The co-operation agreement also requires operators to devise a prevention policy and draw up emergency plans in conjunction with the Ministry of the Interior and describes what has to be done during and after a major accident, but it does not give any definitions.

The **Civil Protection Act** of 31 December 1963 defines the **management of emergency situations** as follows:

*“Section 1. Civil protection shall include all measures and methods intended to ensure the protection and survival of the population and to safeguard the national heritage in the event of armed conflict. It shall also be designed to rescue persons and protect property at all times in the event of major disasters, disasters or major accidents.”*

*Section 2. The King shall decide what civil protection measures are to be taken. He may, among other things, establish a programme of civil protection measures to be applied by every inhabitant, by the public services he appoints and by every private or public body or public corporation ...*

Section 2bis, § 1. *The tasks of civil protection services are:*

- 1. fire-fighting and dealing with explosions;*
- 2. fire prevention;*
- 3. first aid;*
- 4. technical rescue and relief work;*
- 5. combating chemical, nuclear, biological and hydrocarbon pollution;*
- 6. combating major disasters, disasters and major accidents;*
- 7. co-ordinating rescue and relief operations, particularly setting up co-ordination arrangements;*
- 8. international civil protection assignments;*
- 9. preventive action at large gatherings;*
- 10. water supply;*
- 11. issuing danger alerts;*
- 12. logistical support.”*

Emergency planning is defined as follows: *“a general emergency and intervention plan determines measures to be taken and rescue and relief arrangements to be made in the event of major disasters, disasters or major accidents”* (see section 2ter of the Civil Protection Act).

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<sup>13</sup> Co-operation agreement of 21 June 1999 between the federal government and the Flemish, Walloon and Brussels-Capital Regions on the control of risks associated with major accidents involving dangerous substances (Authorising Act of 22 May 2001 (Belgian Official Gazette, (*Moniteur Belge*) (MB) of 16.06.2001).

<sup>14</sup> Article 4.7 of the co-operation agreement on major industrial risks.

In a **draft royal decree** which is currently being prepared on emergency and intervention plans, an **emergency situation** is defined as: *“a major disaster, disaster or major accident within the meaning of section 2ter of the Act of 31 December 1963 or any event which has or may have adverse consequences for the community such as a serious breach of law and order, a serious threat to human life or health and/or to important material assets and which requires co-ordination between different sectors to avert the danger or limit the harmful consequences.”*

The draft decree also includes a definition of **emergency and intervention plans (PUIs)**: *“An emergency and intervention plan (hereinafter “PUI”) shall govern multidisciplinary operations and be adopted at national, provincial and municipal level. The PUI shall comprise:*

- *a general emergency and intervention plan (hereinafter “the PGUI”), containing the general guidelines and information necessary to deal with any emergency situation;*
- *specific emergency and intervention plans (hereinafter “PUIs”), supplementing the PGUI with further specific guidelines relating to a particular risk.”*

A definition will be added to the draft decree for each type of plan: the general emergency and intervention plan (PGUI), the specific emergency and intervention plan (PPUI), the internal emergency plan and the medical intervention plan (PIM).

Only in the **regulations concerning employees’ wellbeing** is any definition given of **risk management**, which is defined as: *“all the provision made or measures taken, at any stage in the activities of a company or institution and at any level, to eliminate or reduce occupational hazards”* (Royal Decree of 27 March 1998 on policy to promote employees’ wellbeing at work).

Under the **Flemish Region’s decree<sup>15</sup> on an integrated water policy**, the relevant Flemish authorities must take account of the following principles when preparing, drawing up, applying, monitoring or assessing integrated water policy: “... the **principle of prevention**, under which action must be taken to prevent harmful consequences rather than have to remedy them after the event, and the principle that preventive measures must be applied at source.”

## **2. Relevant authorities at federal and regional level<sup>16</sup>**

### **FLOODING – prevention:**

#### **Federal level:**

##### **- Federal Public Planning Service<sup>17</sup> for Sustainable Development**

Task: help other federal public services to devise and implement a sustainable development policy.

<sup>15</sup> Regional decrees have the same legal status as federal laws.

<sup>16</sup> A list of relevant 'national' authorities in Belgium must include both federal authorities and regional authorities because the Constitution apportions powers between the two levels without applying any kind of hierarchy.

<sup>17</sup> Since 2001, the titles “federal public service” and “federal public planning service” have replaced “ministry”. At present, there are four “horizontal” federal public services (the Prime Minister’s Office, Personnel, Budget and Communication), eight “vertical” federal public services (Home Affairs, Foreign Affairs, Justice, Defence, Finance, Social Security, Employment, Public Health, the Economy and Mobility and Transport) and three federal public planning services (Sustainable Development, Social Integration, Science Policy).

**Regional level:**

- **Flemish Ministry of the Environment and Nature – AMINAL** (Environment Authority)

**Water department**

Task: general responsibility for environment, water and forests in the region.

- **Waterways and Sea Lanes Authority** (Waterwegen en Zeewegen) – AWZ (Hydraulic Design and Research Laboratory)

Task: responsible for waterways.

**Hydrological Information Centre – HIC (Hydrologisch Informatie Centrum)**

- **Flemish Ministry of Spatial Planning** – Spatial Planning, Housing and Monuments Department – AROHM

Task: responsible for spatial planning in Flanders.

**- Flemish Ministry of Public Works**

Task: general responsibility for public works.

**- Walloon Ministry of Spatial and Urban Planning and the Environment**

Task: general responsibility for the environment and spatial planning in the Walloon Region.

**- Walloon Ministry of Agriculture and Rural Life**

**- Walloon Ministry of Amenities and Public Works**

**Hydrological Studies Department (SETHY)**

Tasks: real-time measurement and monitoring of waterways, hydrological studies, co-ordination, flood announcements.

**- Other ministries concerned: Walloon Ministry of the Interior**

- **Brussels-Capital Ministry of the Environment – Brussels Institute for Environmental Management**

Task: general responsibility for the environment in the Brussels-Capital Region

**- Transport and Public Works Authority**

Task: responsible for waterways and pluviometry

**Water Directorate**

**Hydrogeology Directorate**

**- Brussels Intermunicipal Sanitation Network**

Task: manage storm water basins and catch basins and run the city's main water systems 24 hours-a-day, 7 days a week.

**FLOODING – Crisis management:**

**Federal level:**

**Home Affairs FPS – Directorate General of Civil Protection and Crisis Centre Directorate General**

Tasks: the Home Affairs FPS takes action and co-ordinates all the measures required to protect the community and the natural heritage from major disasters, disasters and major accidents.

### **Home Affairs FPS – Crisis Centre Directorate General**

Tasks: co-ordinate emergency planning, provide round-the-clock monitoring for the government (proactive surveillance), centralise and issue crisis information, provide crisis management infrastructure and resources.

### **Public Health FPS**

Task: in general, improve present and future quality of life (for humans, animals and plants), the food chain and the environment; specifically, make logistical arrangements for emergency and psycho-social medical assistance.

### **Defence FPS**

Task: *inter alia*, support to the nation, meaning that the army will perform certain community functions which are not its primary responsibility but for which it can be called on when civilian resources are inadequate to cope with a disaster.

**Other FPSs involved in dealing with social or economic consequences: Mobility FPS, Economy FPS, etc.**

### **Regional level:**

The regions have no legal powers in crisis management but some regional services such as HIC and SETHY help evaluate crisis situations.

### **CHEMICAL HAZARDS<sup>18</sup> - prevention**

#### **Federal level:**

#### **Employment and Labour FPS – Directorate General for Wellbeing at Work – Chemical Hazards Monitoring Division**

Tasks: prevention work pursuant to the Seveso Directives, specific tasks relating to safety-reports evaluation, inspection work, co-ordinating the inspection system and organising the permanent consultation machinery.

#### **Economy FPS (SMEs, Middle Classes and Energy) – Quality and Safety Directorate**

Tasks: operates as an evaluation service and a Seveso inspection service for a specific set of companies (explosives factories and warehouses, underground gas storage sites and gas distribution companies).

### **Home Affairs FPS – Directorate General of Civil Protection**

Tasks: the Home Affairs FPS has been assigned prevention tasks as the service which assesses safety reports and provides public information on prevention.

### **Public Health FPS**

Tasks: general responsibility for all aspects of health and specific responsibility for the provision of emergency and psycho-social medical assistance.

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<sup>18</sup> By chemical hazards, we mean hazards created by the presence of dangerous substances in quantities equal to or greater than those outlined in Appendix I, parts 1 and 2 of the co-operation agreement of 21 June 1999 between the federal government and the Flemish, Walloon and Brussels-Capital Regions on risk control in major accidents involving dangerous substances.

**Regional level:****- Flemish Ministry of the Environment – Environment, Nature, Soil and Water Management Department**

Task: the safety reports service run by this department is the co-ordinating and evaluating body for Seveso establishments in the Flemish Region with responsibility for gathering, co-ordinating and evaluating safety reports.

**- Flemish Ministry of Spatial Planning – Spatial Planning, Housing and Monuments Department – AROHM**

Task: responsible for spatial planning in the Flemish Region

**- Walloon Ministry of the Environment, Natural Resources and Agriculture – Directorate General of Natural Resources and the Environment (DGRNE)**

Task: acts as the co-ordinating and evaluating body for Seveso establishments in the Walloon Region with responsibility for gathering, co-ordinating and evaluating safety reports and identifying risk of domino effects.

**- Walloon Ministry of Spatial Planning, Amenities and Transport – Directorate General of Spatial Planning, Housing and Heritage (DGATLP)**

Task: responsible for spatial planning in the Walloon Region.

**- Brussels-Capital Ministry of the Environment – Brussels Institute for Environmental Management**

Task: acts as the co-ordinating and evaluating body for Seveso establishments in the Brussels-Capital Region with responsibility for gathering, co-ordinating and evaluating safety reports and identifying risks of domino effects.

**- Brussels-Capital Ministry of Spatial Planning – Spatial Planning and Housing Department (AATL)**

Task: responsible for spatial planning in the Brussels-Capital Region.

**CHEMICAL HAZARDS – crisis management****Federal level:****- Home Affairs FPS: Directorate General of Civil Protection**

Tasks: the Home Affairs FPS takes action and co-ordinates all the measures required to protect the community and the natural heritage from major disasters, disasters and major accidents.

**- Home Affairs FPS – Crisis Centre Directorate General**

Tasks: co-ordinate emergency planning, provide round-the-clock monitoring for the government (proactive surveillance), centralise and circulate crisis information, provide crisis management infrastructure and resources.

**- Public Health FPS**

Tasks: general responsibility for all aspects of health and specific responsibility for the provision of emergency medical aid.

**- Justice FPS**

Task: responsible in the event of a judicial investigation.

**- Defence FPS**

Task: one of its secondary tasks is to support the nation if civilian resources are inadequate.

**- Other FPSs involved in the management of social and economic consequences: Mobility FPS, Economy FPS.**

**Regional level:**

There are no regional bodies with jurisdiction to deal with major accidents involving dangerous substances.

**3. Co-ordinating authorities**

***Prevention:***

***Flooding:***

**Co-ordination of flood prevention – handled by the regions**

Under the European Water Directive, the relevant national authorities are required to take an integrated approach to water matters, requiring co-operation not just at national level but also with neighbouring countries.

In Flanders, 11 river-basin committees have been set up to provide this co-ordination.

In Wallonia, the relevant authorities have worked together to draw up a plan to combat floods and their effects on victims – the PLUIES plan (see details below).

***Seveso:***

**Co-ordination of Seveso risk prevention: the Seveso Co-operation Committee**

Under the co-operation agreement on major industrial risks, the ministries concerned are required to set up a permanent consultation body as soon as possible for implementing and supervising the agreement. The co-operation committee meets several times a year and serves as a fully-fledged discussion forum for all the authorities concerned (see details below).

**Co-ordination of Seveso risk prevention: regional co-ordination services**

Co-ordination services have been set up by each of the 3 regional ministries of the environment to deal with safety report evaluation. Evaluation services are also involved in this and the governor and mayor are kept informed (see details below).

***Others:***

**Multi-tier consultation bodies**

A typical feature in Belgium is public consultation, which has led to setting up consultative bodies representing all the interested parties, including employees, in very specific areas.

Examples are:

- the National Council for Protection and Prevention in the Workplace<sup>19</sup>

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<sup>19</sup> Law of 6.08.1996 on the Wellbeing of Employees and Royal Decree of 3.05.1999.



- the National Fire and Explosion Protection Council<sup>20</sup>
- the National Hygiene and Health Council<sup>21</sup>

### **The Crisis Centre Support Committee**

The royal decree establishing the Crisis Centre<sup>22</sup> also provided for a support committee which was to act as a think tank, producing proposals, among other things, on measures to improve logistical aspects of crisis management (infrastructure and resources) and gather information.

Some years later, it has to be said that the committee has not really been able to fulfil its remit.

### **National Emergency Planning Institute (ISPU)**

The institute was created in 1991 under the Minister of the Interior, following incorporation of the first Seveso Directive into Belgian law (and is now part of the Crisis Centre Directorate General).

Its purpose is to organise training in emergency planning, supply risk information to the relevant services and sectors and promote exchange of ideas on internal and external emergency planning between the authorities and the industry concerned.

For some years the institute has held conferences, seminars, study days and workshops.

While the emphasis, nationally, is on all aspects of emergency planning, the institute has also developed an international programme as a result of which it is recognised by the Council of Europe EUR-OPA Major Hazards Agreement as a EUR-OPA legal centre. Legal advice and comparative analysis work has been carried out at conferences and workshops attended by specialists from Belgium and the other 26 countries which are members of the EUR-OPA Agreement. The activities cover all aspects of risk management, including risk prevention, emergency planning, management of emergency situations, rehabilitation, and penalty and control mechanisms.

As a research institute and a meeting venue, the ISPU has for several years played a part in promoting interaction between the national, European and international levels through a comprehensive, multidisciplinary approach.

ISPU also manages the European Commission's expert exchange system.

### ***Crisis planning and management:***

#### **Co-ordination of procedure for determining Seveso planning areas – handled by the Home Affairs FPS and the regions**

Under Article 16 of the co-operation agreement on major industrial risks, the minister responsible for civil protection is required to determine the limit values, types of accident, weather conditions and scenarios which operators must cover in their safety reports in

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<sup>20</sup> Set up under the Law of 30 July 1979 on the prevention of fire and explosion and compulsory civil-liability insurance against fire and explosion, particularly section 2, as amended by the Law of 22 May 1990, *MB* 20.09.1979.

<sup>21</sup> royal decree of 14.09.1919 (*MB* of 01.10.1919).

<sup>22</sup> Royal Decree of 18 April 1988.

assessing what geographical area a major accident might affect, with a view to determining the emergency planning area. The regions must also be consulted.

### **Co-ordination of crisis planning and management – handled by Home Affairs and the Co-ordination and Crisis Centre**

Mayors and governors are responsible for planning with regard to risks in the geographical areas under their jurisdiction while the Minister of the Interior is responsible where the entire country is concerned.

The Crisis Centre's main function is that of a driving force for emergency planning and management:

- the latest royal decree, which specifies the content of plans, practical arrangements and the responsibilities of all the authorities and sectors concerned, was drawn up by the Crisis Centre in consultation with the relevant authorities;
- the Crisis Centre is the authority responsible for preparing emergency plans to deal with crisis situations which require national co-ordination (phase 4), in consultation with the other authorities concerned;
- in the event of a flood threat, the Crisis Centre collects information from regional meteorological and hydrological services and passes the information on to the Minister of the Interior's office, the National Civil Protection Adviser, the emergency telephone operator centres, the governors of the provinces concerned, the appropriate civil protection flying squads, the Red Cross and the federal police;
- in the event of a crisis situation requiring national co-ordination (phase 4), the Crisis Centre calls together the authorities concerned under the general powers assigned it by the royal decree of 1988.

It follows that, in addition to its general and specific responsibilities, it has a key *de facto* co-ordinating role.

### **The Crisis Centre contact network**

The Royal Decree of 31 January 2003 on phase 4 (national co-ordination) requires each federal public service to set up a departmental crisis unit which liaises with the Crisis Centre on questions of emergency planning and crisis management.

When the federal representatives of the emergency services are added in, the Crisis Centre has a powerful network of correspondents.

### **Co-ordination of Seveso accident management – handled by the Home Affairs FPS**

Under the Civil Protection Act, the Minister of the Interior has general responsibility for organising the means and bringing about the measures needed for countrywide civil protection.

Specific co-ordinating tasks, particularly the centralisation and dissemination of information, have also been assigned to the Home Affairs FPS (**Crisis Centre Directorate General**) under the Seveso Co-operation Agreement.

Article 21 of the agreement reads:

*"When a major accident occurs, the operator is required to notify the general emergency telephone operator (ie dial 100) and the Government Co-ordination and Crisis Centre immediately. The telephone-system employee shall in turn notify the emergency services which take part in external emergency plans. The Government Co-ordination and Crisis Centre shall notify the minister responsible for civil protection, and, where appropriate, the*

*federal ministers responsible for labour, economic affairs and the environment and the relevant co-ordination and inspection services. If the major accident or the threat of a major accident has or could have cross-border effects, the Government Co-ordination and Crisis Centre shall immediately notify the relevant authority in the country concerned."*

Article 22 of the agreement: *"The operator shall, as soon as possible after an accident, communicate the following information, as soon as it is available, to the Government Co-ordination and Crisis Centre and relevant inspection services ..."*

The Crisis Centre's<sup>23</sup> main function is to help the relevant decision-makers by providing them with personnel and infrastructure (see the Minister of the Interior's Circular of 11 July 1990 on emergency and intervention plans).

**Local and provincial level: emergency planning co-ordination – municipal and provincial safety committees; co-ordinating management of emergency situations – co-ordinating committees.**

A draft royal decree on emergency and intervention plans provides more details on the role and membership of the co-ordinating committees appointed to assist the relevant authorities in assessing the emergency situation, determining what resources are needed, deciding on methods and seeking solutions.

The co-ordinating committee is chaired by the authority responsible for managing the emergency situation. That authority receives support from the lower authority, which may also convene a co-ordinating committee of its own and/or send a liaison officer.

Municipal co-ordinating committees are made up of (at least) the mayor or his/her representative (in the chair), the local government officer responsible for emergency planning and a representative of each sector involved.

Provincial co-ordinating committees comprise the governor or his/her representative (in the chair), the local government officer responsible for emergency planning, a representative of each sector involved and the mayor or mayors of the municipality or municipalities concerned and his/her/their representative(s).

Details of the membership of co-ordinating committees are given in each emergency and intervention plan.

Outside crisis situations, co-ordinating committees act as municipal or provincial safety committees and are responsible for preparing and updating municipal emergency and intervention plans, organisation and evaluation of training exercises on the basis of a training-exercise programme, identifying and analysing risks, and devising and updating warning systems. The emergency planning officer is the secretary of the safety committee.

These functions (safety committee, emergency planning officer) already exist *de facto* in certain provinces but the aim of the draft royal decree is to make them a formal obligation for the whole of Belgium.

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<sup>23</sup> Royal Decree of 18.04.1988 establishing a Government Co-ordination and Crisis Centre (MB of 04.05.1988).

## 4. Organisation of major risk management in Belgium

### A. Seveso risks

For industrial hazards and in particular for Seveso risks, Belgium has had to adopt an integrated approach because of the European Seveso Directives, which place obligations on the authorities of the member states without taking into account the complexity of national allocation of powers and responsibilities.

The objectives of the Seveso Directives tend to fall within the remits of more than one ministry, located at two levels of government with equal powers, ie federal government and the three regions. In addition, the second Seveso Directive – Directive 96/82 of 1996 – requires emergency plans, which are a federal responsibility, to include provisions for rehabilitation, which is a regional responsibility.

Article 2 of the co-operation agreement<sup>24</sup> clearly sets out the aim: “**prevention of major accidents involving dangerous substances and limitation of their consequences for people and the environment, providing high levels of protection consistently and efficiently throughout the country.**”

Under section 92bis, §3 (b) of the special law on institutional reforms of 8 August 1980, as amended by the special laws of 8 August 1988 and 16 July 1993, the federal government and the regions are required to negotiate a co-operation agreement on federal and regional implementation of the EU rules on risks of major accident in certain industrial activities.

The co-operation agreement of 21 June 1999 between the federal government and the Flemish, Walloon and Brussels-Capital Regions on control of risks associated with major accidents involving dangerous substances incorporated Seveso Directive 96/82 into Belgian law.

The foundations of current Seveso prevention and management arrangements are laid down in this co-operation agreement, which covers all the relevant authorities and brings together in a single document, applying equally throughout Belgium, principles relating to:

- prevention;
- emergency planning;
- operations in the event of an accident;
- spatial planning;
- data transmission and
- inspection.

**Prime responsibility** lies with the **operator of the establishment covered by the directive**<sup>25</sup>. All Seveso establishments must:

- in general, take every measure necessary to prevent major accidents or limit the consequences for man and the environment;
- be able to prove at any time that they have taken such measures;
- send notification to the relevant authorities;
- draw up a major-accident prevention policy.

Upper-tier establishments<sup>26</sup> must also:

<sup>24</sup> 200 companies are now classed as “Seveso companies” (compared with 80 under the first directive).

<sup>25</sup> The definition of an establishment is the whole area under the control of an operator where dangerous substances (the quantities of which are determined in Appendix I to the co-operation agreement) are present in one or more installations, including common or related facilities or activities.

- draw up a safety report;
- establish a safety management system;
- draw up an internal emergency plan;
- and provide the authorities with the information required to draw up an external plan.

#### **The duties of the relevant authorities:**

The co-operation agreement provides for three types of services:

- co-ordinating services, responsible for receiving establishments' safety reports – these are regional services (three authorities, one for each region);
- evaluation services, responsible for evaluating the safety reports according to the type of establishment and its location:
  1. regional co-ordinating services;
  2. a service run by the Employment and Labour FPS;
  3. a service run by the Economy FPS;
  4. the Home Affairs FPS's Directorate General of Civil Protection;
  5. the relevant fire service;
- services carrying out inspections according to the type of establishment and its location: regional services, a service run by the Employment and Labour FPS and a service run by the Economy FPS.

**Seveso risk prevention is the responsibility of the regional authorities but the evaluation procedure involves the other authorities and the governor and the mayor are kept informed.**

The same approach is taken to emergency planning, where the Minister of the Interior has the ultimate responsibility (currently, provincial governors draw up the external plans), but the regions are consulted on the criteria for identifying risk-prone areas.

The co-operation agreement does not state every crisis prevention and management requirement; it merely provides a special framework for Seveso companies and must be supplemented by regional rules on the environment and federal rules on safety at work and civil protection (on the latter point, see below under section C).

**This agreement is an outstanding example of interministerial co-ordination which does not affect the powers of the various ministries concerned but provides for collaboration, consultation or co-operation where information possessed by one partner may be relevant to one or more of the others:**

- in the evaluation procedure the fire service, the Crisis Centre and the Directorate General for Civil Protection receive information that is crucial for emergency planning and operations;
- the various inspection services are co-ordinated by the Employment and Labour FPS. Inspectors retain their own specific powers but work together according to an inspection programme;
- copies of the reports by inspection services are sent as feedback to the other services in the inspection team. If the prevention measures taken by an operator are considered inadequate, a copy of the report may be sent to the local co-ordinating service;
- a permanent consultation body ensures that the agreement is applied as consistently as possible.

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<sup>26</sup> Depending on the quantity of dangerous substances present, establishments are divided into two categories – lower-tier establishments must meet only the minimum requirements whereas upper-tier establishments must satisfy more rigorous standards.

**The framework established by the agreement, and in particular the permanent consultation body, allow all those involved to get to know one another personally and to keep one another informed of operations and current programmes and activities in their respective departments.**

The consultation body, called the co-operation committee<sup>27</sup>, meets four times a year and brings together everyone concerned (co-ordinating, evaluation and inspection services). The prevention, emergency planning, crisis management and inspection services are thus represented on it. Its main tasks are to:

- ensure that the agreement is applied consistently in all three regions;
- play a part in drawing up common procedure for the three regions;
- provide a forum for finding solutions to any implementation problems encountered;
- provide a link with the European Commission.

This regular contact also gives rise to other spontaneous consultation and co-operation activities which the partners consider beneficial although outside their strict statutory obligations:

- meetings allow information to be exchanged on any matter relating to the aims of the agreement;
- recently it was decided to invite the Mobility and Public Health FPSs to take part in meetings;
- safety reports are sometimes forwarded to another region when it is thought that the anticipated effects could have an impact there;
- inspection reports are systematically forwarded to all the regions;
- conclusions drawn after a crisis (by the Crisis Centre or the Employment and Labour FPS) are passed on to the authorities concerned;
- all the inspectors meet once a year for two days to pool their experiences;
- the Public Health FPS (which has not signed the agreement) is given information on Seveso sites and presence of dangerous substances by the Employment and Labour FPS to help it to organise emergency medical aid;

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<sup>27</sup> Article 35 § 1. "A permanent consultation body shall be set up to ensure proper functioning of this co-operation agreement. Its tasks shall be:

- harmonisation, as between services jointly responsible for working methods and procedures, of exchange of information and decision-making criteria for implementing this agreement;
- co-ordination of activities and dissemination of results of research and development on the management of major industrial-accident risk;
- seeking consistent solutions to problems posed by particular establishments and establishing a body of administrative case-law;
- co-ordination of Belgian representation in committees and workshops on management of major industrial risk and related subjects;
- co-ordination of action and stances with regard to international policy.

§ 2. The permanent consultation body shall be composed of representatives of the relevant authorities. It shall take decisions by consensus of representatives of the parties concerned. If consensus cannot be reached, the matter being discussed shall be referred to the Interministerial Conference on the Environment, which shall be enlarged to include the other federal ministers concerned.

§ 3. The members shall hold at least four plenary meetings a year and as many workshops as they deem necessary. The chairmanship and the secretariat shall be appointed by the permanent consultation body.

§ 4. The agenda and the minutes for each meeting shall be distributed in good time to all the members. Opinions relating to international policy shall be sent to the Chair of the Co-ordinating Committee on International Environment Policy.

§ 5. The chairmanship and the secretariat shall be provided by the Minister of Employment and Labour."

- the Employment and Labour FPS also passes this information on to Home Affairs for their GIS work<sup>28</sup>;
- etc.

**As with emergency planning, knowing one another and having common goals creates a close working relationship and commitment which guarantee formal co-operation and stimulate informal collaboration.**

As already mentioned, the co-operation agreement does not go into detail on arrangements for emergency planning and on management of relief and rescue operations.

It is the draft royal decree on emergency and operational planning which lays down specific provisions for the provincial governor, particularly the requirement to seek assistance, in drawing up a draft Seveso external emergency plan, from a steering committee including a graduate public official from his own administrative services, representatives of the relevant municipal services, representatives of services and bodies whose involvement is considered necessary in the event of a major accident, and representatives of prevention and workplace protection committees in the industry concerned. The Minister of the Interior endorses draft provincial plans. For the general framework, see section C.

In Belgium, unlike other European countries, preventive information on Seveso risks is the responsibility of the Home Affairs FPS, not the operator. Information campaigns are financed indirectly by operators, who pay a yearly contribution to the Seveso Fund, which is managed by the Minister of the Interior and helps to finance certain activities intended to protect the population against Seveso risks (information, external emergency plans, studies, equipment for emergency services, etc.).

## ***B. Flood arrangements***

### ***Prevention in Wallonia<sup>29</sup>***

After the floods in 2002 and 2003, the Walloon Government opted for an overall, integrated approach to preventing and dealing with floods and decided to draw up its PLUIES plan for combating floods and their effects. PLUIES encompasses all aspects of regional policy in the matter and ensures that measures taken locally in each drainage sub-basin are co-ordinated overall.

27 action projects have been decided in the 5 main areas of responsibility concerned. These projects will help implement a plan which has 5 objectives:

1. improve knowledge of flood risks;
2. reduce and slow run-off in drainage basins;
3. river-bed and alluvial-plain flood-control measures;
4. reduce the vulnerability of flood-prone areas;
5. improve crisis management.

A Flood Task Force has been appointed to supervise and co-ordinate the implementation of the PLUIES plan.

## **Public works**

Project 18. Telemetry network

Project 19. Suitability of floodwater storage ponds

<sup>28</sup> Geographic Information System.

<sup>29</sup> Information taken from a note to the Walloon government on the PLUIES plan – a comprehensive, integrated, long-range plan, adopted on 4 March 2004.

- Project 20. Preservation of oxbow lakes
- Project 21. Dredging
- Project 22. Disposal and storage sites for dredge mud
- Project 23. Protection of inhabited areas.

### Local authorities

- Project 24. Three-yearly programmes
- Project 25. Municipal infrastructure

### National and international co-operation

- Project 26. Intensification of co-operation
- Project 27. Crisis management

In connection with crisis management, which is a federal responsibility, not a regional one, there has been some discussion of the benefits and role of a possible regional crisis centre. The conclusion has been that a regional centre could carry out five tasks:

- **Co-ordination of disaster response:** this is currently the role of provincial centres. Depending on the type of event (flood, major pollution, chemical accident, major traffic accident, etc.), a representative of the relevant service of the Walloon Region would be delegated to help.
- **Co-ordination in other critical situations:** these would be slow-burning crises with clearly identified regional implications (drought, food or agriculture crises, major traffic jams, etc), which would require the co-ordination of several Walloon-Region services.
- **Liaison in phase 4 situations (national co-ordination):** depending on the type of problem and the geographical extent, the Walloon Region's delegate to the Government Co-ordination and Crisis Centre would need a regional contact person.
- **Communication with the public and the media (regional category 5):** in the event of a crisis directly involving Walloon-Region services, information would have to be supplied to the public and the press, in particular through a regional spokesperson.
- **Providing information for members of the Walloon government:** this would need careful planning. A standby service is essential.

For example, if there were widespread flooding, representatives of the Walloon Region would have to be delegated to each provincial crisis centre. In view of the shortage of administrative staff, human-resources centralisation would be more efficient. The existing infrastructure of the Namur province crisis centre, combined with the proximity to it of the regional services, argues in favour of setting up a regional crisis centre there.

A detailed analysis of material and human resources is under way.

### Flood prevention in Flanders

After the 1975 flooding, a plan called the Sigma plan was drawn up in Flanders, with the aim of protecting the population from flooding by the Scheldt and its tributaries. The focus of the plan was on two types of prevention measure – consolidation of dykes and the creation of “controlled flood areas”<sup>30</sup>, of which there are currently thirteen.

Zero flood risk is now considered impossible to achieve and so Flanders' policy for protecting the community against flood risk is currently based on general principles and basic rules which take account of economic criteria (cost analysis and probability of occurrence). Priority,

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<sup>30</sup> “Gecontroleerde overstromingsgebieden”.



and hence most investment, goes towards urban areas, and so, for example, rural areas without housing are no longer specifically protected.

The Flanders Security Level project sets out the scientific basis for the Flemish Government's new approach to flood defence. The emphasis is on damage prevention rather than protection against water.

Spatial planning policy focuses on integrated, sustainable water management. In areas with high population densities, where there is no more room for (preventive) town-planning measures, the emphasis is on public-protection measures such as control centres, warning systems and simulations.

Flood prevention policy in Flanders is characterised by a comprehensive, multidisciplinary approach which seeks to strike a balance between optimum protection and socially acceptable cost.

### ***Forecasting***

As topographical mapping of the Walloon region has recently been completed, the SETHY<sup>31</sup> is now capable, in crisis situations, of producing a map showing the areas that will be flooded within x hours. This is of course a very useful tool for the various crisis centres provided that they have GIS<sup>32</sup> (enabling them to add further layers containing additional information such as data on the population, schools, etc.) and qualified staff.

The two meteorological services, the IRM<sup>33</sup> and MétéoWing, are currently working on a joint message to the Crisis Centre. Warnings communicated in this way specify how long the content of the message will be valid for. The IRM acts as the Crisis Centre's sole provider of meteorological information, meaning that weather forecasts are always totally consistent and all confusion with regard to evolution of key meteorological parameters is avoided.

The meteorological services are currently drawing up an agreement and it is planned, once this agreement has been negotiated, to carry out consultations with other services (including the hydrological and civil protection services) so as to set danger levels more precisely. For this to happen, there will have to be discussion between the meteorological, hydrological and operational services.

Information communicated to the Crisis Centre by the regional hydrological services contains either an early warning or a warning notice.

An early warning notice means that there is a slight danger of local flooding, with no serious consequences and not yet requiring action by the emergency services.

A warning notice means that there is an imminent or genuine threat of flooding and the emergency services will have to intervene.

All early warning and warning notices are sent to the Crisis Centre and the watercourse managers. One message is sent out for each province affected and each message describes

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<sup>31</sup> Hydrological Studies Service.

<sup>32</sup> Geographic information systems designed to pinpoint risks or crisis situations and help crisis managers perform their tasks. The system now makes use of a series of federal data bases recording both risks and critical and vital points, combined with a system of administrative, road and topographical mapping covering the whole country. It is enhanced through collaboration between the Crisis Centre and its partners, including the provincial and municipal authorities, which are essential links in the chain during crisis management.

<sup>33</sup> Royal Meteorological Institute.

the basins and reaches of watercourses affected and the municipalities and provinces concerned.

In both cases, the Crisis Centre informs the Minister of the Interior's office, the Governor or Governors of the provinces concerned, the National Civil Protection Adviser, the emergency telephone operator centres, the relevant civil protection flying squads, the Red Cross and the federal police.

In the event of a warning notice, additional measures are taken on the basis of detailed messages to the relevant municipalities and/or emergency services concerning each river basin. These messages are also sent to the governors.

***For emergency planning and crisis management, see section C.***

### ***Regional crisis-management back-up***

In the Walloon Region, preparations are being made to open a regional crisis centre. The regions do not have any legal powers or responsibilities in crisis management (which is a municipal, provincial and federal responsibility), but the Walloon Region believes that it can offer back-up for crisis management on the basis of its expertise in many other areas including waterways, drinking water, agriculture and pollution.

The task of a regional crisis centre would be to act as a link to the various institutions in the Walloon Region. The aim therefore would simply be to provide information, not to replace other crisis centres.

A SETHY liaison officer could work at the regional crisis centre and, where necessary, he or she could contact other provincial centres or the federal crisis centre.

## **C. Measures concerning both floods and chemical hazards: emergency planning and operational management**

Hitherto, emergency planning has always been governed by ministerial circulars. The last of these (which is still in force) dates from 11 July 1990<sup>34</sup>.

Currently, a draft royal decree on emergency and intervention plans is being prepared to provide the authorities with a simple, comprehensive, standard tool setting out the main concepts and principles of emergency planning. This draft will lay down the content of the various emergency and intervention plans, how they are to be drawn up and their organisational and operational structure.

As the draft royal decree points out, emergency planning covers every type of risk, working on the principle that there are general provisions which can be applied in any emergency situation but combining these with special provisions covering specific risks and taking a multidisciplinary approach.

It is divided into four phases, which do not necessarily follow one another chronologically:

- phase 1: a municipal phase, during which operations are managed from an operational command centre (OCC);
- phase 2: also a municipal phase, during which strategic co-ordination is provided by the mayor;

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<sup>34</sup> Circular of the Minister of the Interior of 11 July 1990 on emergency and intervention plans, adopted on the basis of the royal decree of 23 June 1971 on civil protection and operational co-ordination in response to major disasters, disasters and major accidents.

- phase 3: a phase which involves several municipalities and during which strategic co-ordination is provided by the governor;
- phase 4: co-ordination or management takes place at national level and strategic co-ordination is provided by the Minister of the Interior.

The draft decree sets the criteria for opening and closing each phase.

Tasks to be performed during a crisis situation are divided into 5 categories:

- category 1: emergency operations – fire and civil protection services;
- category 2: medical, health and psycho-social relief operations – services under the authority of the Public Health FPS;
- category 3: policing of sites and premises – federal and/or local police officers;
- category 4: logistical support, miscellaneous work, assistance and transport – civil protection services, municipal services, specialist services, the army;
- category 5: information – psycho-social services, relevant authorities or their delegated agencies.

The draft royal decree specifies who is in charge of operations in each of these categories. Where co-ordination/management across categories is concerned, a distinction has to be made between:

- strategic management and co-ordination, which is handled by the relevant authorities assisted by a co-ordinating committee;
- operational management and co-ordination, which is handled by the operational command centre (OCC). The OCC is run by the chief of fire operations (ie the highest-ranking fire officer on site, whether he or she is a professional or a volunteer), unless the relevant authority appoints another manager with skills more appropriate to the situation being tackled.

Warnings and calls for the emergency services to intervene are issued by the central emergency telephone operator service.

The minimum content of emergency and intervention plans is laid down for general and specific plans, together with drafting procedure.

One extremely interesting proposal in the draft royal decree is to make it compulsory for mayors and governors to draw up a list of risks in their own areas and of risks in neighbouring areas with a potential impact on their own. On the basis of this list, they would be required to conduct a risk analysis, ie analyse impact and response capability.

#### **D. The role of the Government Crisis Centre in emergency planning and operational management**

The main functions of the Crisis Centre derive from the royal decree by which it was set up in 1988 - to provide a round-the-clock monitoring service for the Government, gather and analyse information of value for crisis management on a continuing basis, pass this information on to the appropriate people and services and provide the infrastructure and the material and personal resources needed to take urgent decisions.

On the basis of these functions, the Crisis Centre has built up its own unquestionable expertise as the co-ordinator and facilitator of decision-making processes in emergencies. To cite only a few examples, it organised the co-ordinating meetings during the floods in the 1990s, permanently exchanges information with the regional meteorological services, passes on this information to services on the ground and provincial officials and circulates recommendations to the public via the media in the event of storms or floods.

The Crisis Centre has now become a fully-fledged Directorate General of the Ministry of the Interior and emergency planning was recently added to its responsibilities. The Royal Decree of 31 January 2003 on the national emergency plan<sup>35</sup> and the responsibilities it gives the Crisis Centre amount to a new stage in this process.

This decree restates the Minister of the Interior's general responsibility for co-ordinating the preparation and application of the measures necessary for civil protection within both the various ministerial departments and the public services. As regards crisis co-ordination and management at the level of each of the federal departments concerned, each federal service has its own crisis co-ordination and management committee, which is responsible for the co-ordination of emergency planning (ie for preparing potential measures) and crisis management in the areas within each federal service's own remit. During a crisis, the Minister of the Interior or his or her representative chairs the management committee; he or she may, if necessary, decide to entrust the task of supervising the situation to one of the departments directly concerned.

The Crisis Centre has taken a number of steps to put these new legal obligations into effect. For example, it has taken or is planning the following measures with regard to its phase-4 flood plan:

- initially, work has consisted in taking stock of information flows between the meteorological services, the hydrological services and the Crisis Centre so as to examine and, if necessary, improve them;
- then it is planned to meet representatives of the most directly affected provinces and departments;
- the ultimate objective is to draw up a national emergency plan.

Currently, the nuclear plan is being finalised and approved by royal decree, and four other specific phase-4 plans are being planned, in the following areas:

- epizootic diseases;
- natural disasters (for the time being, floods);
- epidemics;
- aviation.

To complete these tasks, the Crisis Centre has also taken other initiatives, particularly in the area of risk identification – launched by means of a university research project entitled FRISK (Federal Risk Inventory – Survey and Knowledge Building) (December 2003 – November 2004, carried out by Liege University).

As a result of this project and for the first time in Belgium, a national risk analysis is being carried out (what the dangers and risks are, which are most frequently encountered, which have the most impact/consequences, etc.) with the aim of being able to identify emergency-planning priorities.

The results of the project will undoubtedly contribute to better risk management thanks to an improved, scientifically-based understanding of the situation.

The same risk-management approach is reflected in the draft royal decree on emergency planning which is currently being prepared by the Crisis Centre. Here again, new features have been added which will most certainly make for a more effective crisis management:

- municipalities and provinces would also be required to produce a risk inventory for their areas, based on a risk analysis;

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<sup>35</sup> Royal Decree of 31 January 2003 establishing an emergency plan for crisis events and situations requiring national co-ordination or management.

- municipalities and provinces would be required to appoint an emergency-planning officer, as a permanent source of expertise on the subject;
- the co-ordinating committee assisting the mayor and the governor in the event of a crisis would act as a standing safety committee outside times of crisis;
- there would be a standard minimum content for emergency plans, which would improve co-ordination and co-operation between municipalities; emergency plans would not just consist of a list of officials, with their addresses and phone numbers, but would also have to include emergency scenarios – a measure which (along with exercises) should help improve operational co-ordination;
- depending on the type of crisis, someone other than the head of the fire services could take over operations (for example, if there was a serious disruption of law and order, an epidemic, etc – cf. the new phase-4 approach described above).

This new framework places the emphasis on:

- a uniform approach throughout Belgium. There is currently a whole range of schemes in the provinces which are their response to the need for co-ordination. However, at the moment there are as many schemes as there are provinces. The current nature of systems, how they come about and with what budget, and their degree of success or merit all depend on the vision and the commitment of the provincial authorities and officials responsible for safety (the emergency planning officer who has been a feature in Eastern Flanders for years, the OSR<sup>36</sup> rapid rescue service, an on-line planning tool for the governor, the mayor and the emergency services in the Province of Antwerp, the Liège Province prevention plan, etc.). If a common minimum framework was established, there would at least be a degree of harmonisation in approaches and methods;
- flexible management according to the type of risk and organised by a committee made up of the authorities responsible for crisis management, who can be joined by whatever other public or private-sector body or experts with specific skills are appropriate. This approach also makes it possible to entrust operational management to one of the services or bodies that is directly concerned with the problem.

## **5. What are the strong and weak points of Belgium's system?**

### **1. Very strong point – analysis and inventory of risks by the Crisis Centre**

The Crisis Centre instigated the FRISK university research project (Federal Risk Inventory – Survey and Knowledge Building) to identify and analyse risk throughout Belgium with a view to establishing emergency planning priorities.

The Crisis Centre also included in the draft royal decree a provision on emergency planning requiring municipalities and provinces to prepare an inventory, based on a risk analysis, of risks in their areas.

These risk analyses at all levels will make for a better, scientifically founded understanding of the measures needed to counter risks and, above all, by identifying priority risks, they will allow a start on an integrated approach linking risk prevention, planning and operations. To establish priorities, it will inevitably be necessary to take account of the prevention work that is already carried out, as priority will naturally be given to emergency planning where the risks are the least controlled or controllable.

**Average point:** this is most certainly an important step in the right direction towards a more integrated approach to risk, albeit only a small one in that, for the time being, the prevention specialists are not involved in the activities, which are solely for 'emergency planners'.

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<sup>36</sup> Organisatie Snelle Redding.

## **2. Average point (prevention, management): the allocation of powers/responsibilities can undermine solidarity**

The regions have expertise in many areas which can be beneficial or even vital in crisis situations (for example, facilities for measuring air quality). Currently, there is no structural provision for making this available because the management of emergency situations is a federal responsibility not a regional one.

Generally speaking, because of the distribution of powers/responsibilities between the federal and regional levels in Belgium, prevention is covered by the regions (environment) and the Communities (health), whereas remedial action is taken by the federal government (crisis management and social security). As a result, the prevention authorities do not reap the full benefits of crisis management work and vice-versa, meaning that neither side is as effective as it could be, and the federal authorities are reliant on prevention measures in which they no longer have any say. This is a typically Belgian problem, which is the result of various successive phases of constitutional reform.

Adopting a holistic approach which recognises the successive, interdependent stages to dealing with the problems – and which might introduce incentive measures to encourage the authorities at different levels to work together – is therefore a truly essential step in an administratively complex country like Belgium.

## **3. Average point (prevention, planning): co-ordination of local schemes**

Numerous projects are developing in the provinces at the moment. However, in the absence of any co-ordinating body, nobody is keeping an inventory or assessing their merits or possible advantages for other provinces. There are no systematic or structural means of disseminating or publicising these activities, which deprives everyone of many resources.

**Strong point: the existence of a centre of excellence such as the emergency planning institute, the ISPU, whose field of activities could be extended to help solve the problem of unfamiliarity with good practices** that exist in other provinces and neighbouring countries.

As a research institute and a meeting place, the ISPU has for years been playing a part in interaction between the national, European and international levels, adopting an all-embracing, multidisciplinary approach. Substantial added value could be created by extending its activities into two areas:

1. providing a centralised database of national and international good practices, as a source of inspiration for new measures;
2. maintaining a skills matrix - a directory of Belgian and foreign experts, including descriptions of their fields of expertise.

## **4. Very strong point (planning): providing permanent sources of expertise**

The provision in the draft royal decree which requires every municipality and every province to appoint an emergency planning officer and the fact that the co-ordinating committee which assists the mayor and the governor in crisis situations will also act as a standing safety committee outside crisis situations ensure permanent sources of expertise in every municipality and province.

**Average point:** the tasks assigned both to planning officers and safety committees are unduly focused on planning, to the exclusion of risk-prevention matters.

### **5. Strong point (crisis management): flexible management**

One of the features of the new approach in Belgium (which is reflected in the royal decree on phase 4 and the draft royal decree on emergency planning) is a flexible crisis management structure according to the type of risk, with a committee made up of the authorities responsible for crisis management but able to call on any other appropriate agency, including public and private-sector services or experts with specific skills. This approach also makes it possible to ask the authority or service specifically concerned to take over operations, eg the police in the event of a terrorist attack or the public health services in the case of an epidemic.

### **6. Average point (non-police security policy): failure to evaluate temporary arrangements**

From 1996 to 2000, the Belgian government had a State Secretariat for Security and the Environment, which dealt with all non-police security issues, ie the fire, civil protection and medical emergency services, under the authority of the Minister of the Interior and the Minister of Health. After the 2000 elections, the experiment was shelved although no assessment had been made of its success.

### **7. Flood strong point (prevention): the PLUIES plan, a collaborative effort involving all the Walloon regional authorities**

The PLUIES plan is a comprehensive plan encompassing all the different aspects of regional flood policy, ensuring overall consistency of measures taken in individual drainage sub-basins.

Twenty-seven projects have been identified in the five main fields of responsibility. The projects are intended to help put into effect a plan which has been organised around 5 objectives:

1. improving knowledge of flood risk;
2. reducing and slowing run-off in drainage basins;
3. flood-control work on river beds and alluvial plains;
4. reducing the vulnerability of flood-prone areas;
5. improving crisis management.

A Flood Task Force has been appointed to supervise and co-ordinate implementation of the PLUIES plan.

### **8. Flood strong point (forecasting): collaboration between regions and the Crisis Centre**

In flood forecasting, there is *de facto* collaboration between the regions and the Crisis Centre, in which prevention tools are made available for crisis management. The regional hydrological services' systematic practice of providing the Crisis Centre with early warning, warning and flood notices is an outstanding example of voluntary information provision (under no statutory obligation).

### **9. Very strong point with regard to Seveso: the integrated approach established by means of the Seveso Co-operation Agreement**

The main merit of the Seveso co-operation agreement is to have brought together authorities with specific functions to work towards a goal which transcends their statutory responsibilities.

The provisions in the agreement are partly the responsibility of the federal authorities, partly that of the regional authorities and partly that of both.

A common objective is set and all the authorities concerned (prevention, planning, operational management and inspection) are required to help to realise it with their own particular expertise. The result is a compulsory form of co-operation which is reflected in consultation, co-operation and information-exchange procedures.

**The agreement can be viewed as a mission statement by the four governments concerned (the federal government and the three regions) based on a risk analysis conducted at European level (under the European Seveso Directive). It sets the common goal everyone is to work towards and includes an allocation of functions which is based on and has due regard to the powers and responsibilities of the agreement's signatories.**

**10. Weak point with regard to Seveso (policy): the Public Health service is not currently officially involved in the Seveso co-operation agreement.**

The Public Health FPS has not been involved in the agreement and yet Article 4.7 defines a major accident as "an occurrence ... leading to serious danger to human health ..., immediate or delayed, inside or outside the establishment".

Article 4.8 defines a hazard as "the intrinsic property of a dangerous substance or physical situation, with a potential for creating damage to human health and/or the environment".

The reason why public health was not involved is political: when the agreement was signed, public health came under the State Secretariat for Security. This dealt with all non-police security functions and was accountable to the Ministry of the Interior for civil protection and the Ministry of Public Health for emergency medical services. After the 2000 elections, it was decided to discontinue the experiment with this kind of state secretariat but the question of involvement of the public health services was never resolved, hence the unfilled gap today.

Recently, it was decided to invite a representative of the Public Health FPS to Seveso committee meetings, but in view of the importance of emergency medical aid in rescue/relief operations – and most certainly during the post-crisis stage as well – it seems obvious that a representative should be formally involved as an official partner, not just informally.

**11. Strong point with regard to Seveso (prevention, planning): simplification for industry thanks to co-ordination**

As Eric Van Gils (Director, Chemical Hazards, Employment and Labour FPS) points out about the co-operation agreement in his *Carnet du Préventeur* (Preventer's Notebook): "the main thing for a Seveso company to be aware of is the co-ordination between the various authorities and what that means for the company - which is that it will be dealing with just the one partner, a single regional public service. This is the only instance of this in Europe."

Under Article 8.4 of the co-operation agreement, operators are required to send eight copies of the relevant notification to the co-ordinating service, which then forwards them to the evaluation services and the relevant mayor and governor. This has two advantages – firstly, the company itself has only one authority to deal with and, secondly, the information goes to all the authorities concerned and they have the opportunity to make any comments they wish on the basis of their specific areas of expertise.



**12. Average point with regard to Seveso (prevention): spatial planning is not taken into account in the evaluation procedure**

Under the co-operation agreement, it is the regions' responsibility to make provision for prevention of major accidents in their land-allocation and land-use policies. It is the co-ordinating service that forwards the information in the safety report to the authority which deals with the setting up of new activities or facilities around existing establishments.

Since spatial planning is one of the key factors in all prevention policies, would it not have been preferable to involve that authority in the evaluation procedure (see point 11)?

**13. Average point with regard to Seveso (prevention): no provision is made in the evaluation procedure for co-operation between the regions**

The co-operation agreement provides for an evaluation procedure involving the municipal, provincial and federal authorities. However, no provision is made for involving other regions despite the case for it when municipalities with Seveso establishments adjoin another region or the activity in question could have an impact on another region.

(According to the chair of the consultation committee, information is passed on as a matter of course).

**14. Strong point with regard to Seveso (prevention, planning, operations): the fire services are involved in the evaluation procedure.**

Fire-service involvement means firstly that fire services are able to make comments right from the beginning and secondly that they have the information they need about risks in their areas (stocks of dangerous substances), so that they are ready to intervene in the event of an accident.

The same goes for the governor and the Ministry of the Interior, to whose external emergency plans this information is essential.

**Average point:** there is a question whether the fire services are adequately trained and prepared and whether they have the right resources for this new function, given that evaluation of safety reports requires expertise in the specific subject. The Home Affairs FPS is currently looking into ways of assisting them in this.

**15 Very strong point with regard to Seveso (all aspects of risk management): the co-operation committee**

Under the co-operation agreement on major industrial risks, the ministries concerned are required to set up a permanent consultation body as soon as possible to implement and supervise the agreement. This committee meets several times a year and is a fully-fledged discussion forum allowing all those involved to get to know one another personally and keep one another informed of operations and current programmes and activities in their respective departments.

**16. Very strong point with regard to Seveso (co-ordination of inspection): joint inspection teams**

By setting up joint inspection teams, the co-operation agreement exceeds the requirements laid down by the Seveso Directive. The inspection teams are made up of federal inspectors responsible for internal safety (safety in the workplace) and regional inspectors responsible

for external safety (environmental protection). The joint composition of the teams allows genuinely multidisciplinary inspection of companies.

At the instigation of the Directorate General of Chemical Hazards, all the inspectors meet once a year for two days to pool their experiences.

**17. Strong point with regard to Seveso (feedback): inspection reports are forwarded to the prevention services.**

Under Article 28, § 2.2, sub-paragraph 2, of the co-operation agreement, if the inspection team considers that the measures taken to prevent major accidents or reduce their impact are clearly inadequate a copy of its inspection report must be sent to the co-ordinating service, as defined in the co-operation agreement (ie the prevention service which co-ordinates the authorisation procedure for dangerous establishments).

**18. Average point with regard to Seveso (processing of information): three different bodies notify European or international organisations**

At national level, two different authorities collect information:

1. the regions, for anything to do with prevention;
2. the Crisis Centre, for planning during warning stages and during crises.

It is also compulsory to notify certain European and international organisations in the event of an accident:

1. under the Helsinki Convention, the Crisis Centre must notify the OECD (Article 26 of the co-operation agreement);
2. under the Seveso II Directive, the relevant inspection team must inform the European Commission (of accidents occurring in Belgium, meeting the criteria laid down in Appendix V (Article 23 of the co-operation agreement)).

In addition to these requirements, the regional co-ordinating services send a progress report to the European Commission every three years.

Without altering any authority's responsibilities in drawing up the aforementioned documents, would it not be more logical to assign the communication role to a single body for all the types of document that have to be forwarded to a European or international organisation? Such organisations would then have only one body to deal with in Belgium.

## 6. Conclusion in respect of Belgium

Belgium has two outstanding examples of interministerial co-operation:

1. The co-operation agreement between the federal government and the Flemish, Walloon and Brussels-Capital Regions on control of risks associated with major accidents involving dangerous substances.

The agreement involves all the relevant authorities and brings together in a single document, applying equally throughout Belgium, principles relating to:

- prevention;
- emergency planning;
- operations in the event of an accident;
- spatial planning;
- data transmission;
- and inspection.

**The co-operation agreement can be viewed as a “mission statement” by the four governments concerned (the federal government and the three regions) based on a risk analysis conducted at European level (under the European Seveso Directive). It sets a common goal for everyone to work towards and includes an allocation of functions which is based on and has due regard for the statutory responsibilities of the agreement signatories.**

Co-operation is achieved through a combination of mechanisms such as co-ordination, consultation, information exchange and a permanent consultation body.

2. The Walloon Region’s PLUIES plan, which brings together five fields of specialist responsibility in pursuit of five goals to be achieved by means of 27 specific types of action designed to combat floods and their effects.

**The co-operation agreement and the Walloon Region’s plan both show how a wide range of authorities can be brought together to realise common goals on the basis of their own specific areas of expertise.**

Neither is a ‘complete’ example in that neither encompasses all the aspects associated with risk management. The co-operation agreement is confined to risks linked to dangerous substances while the PLUIES plan is restricted to measures to prevent flooding. However, **their approach and structure could perfectly well be applied to other risks in other fields.**

## 7. Legal references (selection of the most relevant texts)

- ✓ The Royal Decree of 31 January 2003 establishing an emergency plan for crisis events and situations requiring national co-ordination or management (MB<sup>37</sup> of 21.3.2003)
- ✓ The Co-operation Agreement of 21 June 1999 between the federal government and the Flemish, Walloon and Brussels-Capital Regions on the control of risks associated with major accidents involving dangerous substances (Authorising Act of 22 May 2001, MB of 16.6.2001)
- ✓ Environmental regulations of the three Regions (Flemish, Walloon and Brussels-Capital)
- ✓ The Law of 4 August 1996 on employees' wellbeing at work (MB, 18.09.1996)
- ✓ The Minister of the Interior's Circular of 11 July 1990 on emergency and intervention plans (MB of 5.09.1990)
- ✓ The Royal Decree of 19 June 1990 establishing the procedure for the preparation of emergency and intervention plans (MB of 11.07.1990)
- ✓ The Royal Decree of 18 April 1988 founding the Government Co-ordination and Crisis Centre (MB of 4.05.1988)
- ✓ The special law on institutional reforms of 8 August 1980, as amended by the special laws of 8 August 1988 and 16 July 1993 (particularly sections 6, §1, I and II, and section 92bis, §3,b)
- ✓ The Royal Decree of 23 June 1971 on civil protection and operational co-ordination in response to major disasters, disasters and major accidents (MB of 24.07.1971)
- ✓ The Emergency Medical Aid Act of 8 July 1964 (MB of 25.07.1964)
- ✓ The Civil Protection Act of 31 December 1963 (MB of 16.1.1964)

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<sup>37</sup> MB: Moniteur belge – Belgium's Official Gazette.

## **Chapter 3 : France**

### **Major risk management in France:**

#### **Risk prevention and crisis management**

**"The Nation proclaims the solidarity and equality of all French people in bearing the burden resulting from national calamities"**

Preamble to the Constitution of 27 October 1946

#### **1. Introduction**

##### ***Administrative organisation in France***

Administrative organisation in France is characterised by tiers of administration and a very high number of local authorities.

Since devolution was implemented, there have been three levels of fully operational local authority: the region, the *département* and the *commune* (municipality).

In addition to those three levels there are structures for cooperation between *communes*.

The 26 regions (including 4 overseas territories) have been in existence since 1986 (when the first regional councillors were elected) and this system was enshrined in law by the revised constitution of 28 March 2003. In the areas of interest to us for this study, they are above all competent for spatial planning.

In addition, there are 12 defence zones (5 of them overseas).

*Départements* operating as self-governing local authorities have existed since 1871. At present there are 100 *départements* (4 of them overseas). A prefect is appointed to head each *département*, representing the State and wielding broad powers in the field of risk prevention as well as for emergency planning and crisis management.

The *communes* have general competence in the area of major risks based on Article L. 2212-2 of the General Regional and Local Authorities Code, which states that: "*the municipal police has the purpose of ensuring public order, security, safety and hygiene. [this includes]: 5° responsibility for preventing, through suitable precautions, and curtailing, through the distribution of the necessary relief, accidents and disasters as well as pollution of any kind, such as fulfilling any emergency measures of assistance and relief and, where necessary, prompting intervention from the higher authority*". Mayors have other prerogatives that are important for risk management, including powers in the area of urban planning. At present, France has 36 778 *communes* (including 162 overseas).

##### ***Definitions***

The titles of numerous legal texts (laws, decrees, orders etc) mention the notion of **major risks** but there is no single definition. Many provisions set out lists, such as:

Article L. 2212-2 of the General Regional and Local Authorities Code (on the municipal police): ... *accidents and disasters as well as pollution of any kind, such as fires, floods, dike bursts, landslides and rockslides, avalanches or other natural accidents, epidemics or contagions, epizootics, ...*

Article L. 562-1 of the Environment Code: "*I. The State shall draw up and implement plans for the prevention of foreseeable natural risks such as floods, land movements, avalanches, forest fires, earthquakes, volcanic eruptions, storms or cyclones. ...*"

Where the compensation of victims is concerned, the following description of **natural disaster** is given:

Article L. 125-1 of the Insurance Code: "..., *"non-insurable" direct material damage whose determining cause was the abnormal intensity of a natural agent, where normal measures to protect against such damage were unable to prevent its occurrence or could not be taken shall be considered as effects of natural disasters, within the meaning of the present chapter. A state of natural disaster shall be declared by joint ministerial order, which shall determine the areas and periods of occurrence of the disaster as well as the nature of damage resulting therefrom covered by the guarantee referred to in the first paragraph of the present article.*

The Environment Code does not define the notion of prevention but emphasises the **principle of preventive action** as one of the principles underlying environmental preservation policy:

Article L110-1<sup>38</sup>: (...) *are part of the nation's common heritage. II – Their protection, enhancement, restoration, rehabilitation and management are matters of public interest and contribute to the objective of sustainable development which aims to satisfy the development and health needs of present generations without compromising the ability of future generations to fulfil their own. They draw, within the framework of laws defining their scope, on the following principles:*

*1° the precautionary principle (...)*

*2° the principle of action to prevent and correct, preferably at source, damage to the environment, using the best techniques available at an economically acceptable cost.*

Article L. 515-15 of the Environment Code<sup>39</sup> gives a definition of **plans to prevent technological risks**: "*The State shall draw up and implement plans to prevent technological risks intended to limit the effects of accidents that might occur in installations as listed under paragraph IV of article L. 515-18 and affect public hygiene, health and safety either directly or through pollution of the habitat*"

Where compensation for victims is concerned too, the law of 30 July 2003 also introduced the notion of **technological disaster**, without giving a definition: it is also established by the administrative authorities.

In the regulations specific to Seveso-level risks, Article 2 of the Order of 10 May 2000<sup>40</sup> gives the following definitions:

**Major accident**: *an occurrence such as a major emission, fire or explosion resulting from uncontrolled developments in the course of an industrial activity, leading to serious danger to human health and/or the environment, immediate or delayed, inside or outside the establishment, and involving one or more hazardous substances or preparations;*

**Major accident prevention policy**: *the policy established by the operator in relation to accidents envisaged in the analysis of dangers defined in article 3-5 of the decree of 21 September 1977, with a view to preventing major accidents and limiting their consequences for man and the environment;*

<sup>38</sup> Law no. 200-276 of 27 February 2002, Article 132; Journal Official (Official Gazette) of 28 February 2002

<sup>39</sup> Article 6 of Law no. 2003-699 of 30 July 2003 on the prevention of technological and natural risks and the repair of damage

<sup>40</sup> Order of 10 May 2000 on the prevention of major accidents involving dangerous substances or preparations present in certain categories of installations that are classified for the protection of the environment and subject to authorisation

**Safety management system:** *the set of measures implemented by the operator at the level of the establishment, concerning organisation, functions, procedures and resources of any kind aimed at preventing and handling major accidents.*

**The new Law no. 2004-811 of 13 August 2004 on modernisation of civil safety** gives a definition of civil protection and sets out the main principles underlying civil safety policy, *inter alia* the principle of prevention:

Article 1. **Civil safety** *has the purpose of preventing risks of any kind, informing and alerting populations and protecting people, property and the environment against accidents, devastation and disasters through the preparation and implementation of measures and appropriate resources coming under the State, local and regional authorities and other public or private entities.*

Article 3. *Civil safety policy must make it possible to take resolute action against risks by **heightening anticipation of them**, to reform the protection of communities and to mobilise all resources encouraging solidarity.*

Concerning **emergency planning**:

Article 14. I. *The organisation of relief of a special scale or nature shall be covered, in each département, in each defence zone and at sea, by a plan known as the "Orsec plan".*

II. *The département-level Orsec plan lays down, with regard to the risks existing in the département, the general organisation of relief and inventories all the public and private resources that could be implemented. It establishes the conditions for their use by the authority competent to direct relief operations.*

## **2. Authorities competent at national level**

### **FLOODS - Prevention**

- **Ministry of Ecology and Sustainable development - Directorate of Water:** prevention of natural risks falls within the competence of this Ministry, with flood prevention strategy following 3 thrusts: legislative, financial and organisational
- **Ministry of Agriculture – Directorate of Rural and Forest areas,** which is competent for the preservation of the environment and natural areas

### **FLOODS - Management**

- **Ministry of the Interior, Internal safety and Local freedoms – Directorate of Civil Defence and Safety (French abbreviation DDSS):** it is competent for the preparation, coordination and implementation of civil protection measures, for policy aimed at public protection, prevention of civil risks of any kind and for the planning of civil defence and safety measures; relief actions aimed at the safety of people and property, in both peace-time and times of crisis; civil safety intervention resources; assistance for local relief and fire-fighting services; (promotion of civil safety teaching and training of fire and emergency service officers).

**Other Ministries with specific competence:**

- **Ministry of Health and Social Protection**
- **Ministry of National Education, Teaching and Research**
- **Ministry of Defence**

## CHEMICAL RISKS<sup>41</sup> - Prevention

- **Ministry of Ecology and Sustainable development – DPPR - Directorate of Prevention of Pollution and Risk:** the Minister for Ecology bears responsibility for legislation on classified installations. Within the Ministry, the industrial environment department of the Directorate of Prevention of Pollution and Risk (French abbreviation DPPR) is responsible for taking action to reduce pollution, nuisances and risks for the environment resulting from these activities. In particular it draws up regulatory texts and runs, organises and provides permanent training for the team of inspectors of classified installations.

Industrial risk prevention policy is a priority for the Ministry.

The minister may also call on the Higher Council of Classified Installations, which issues opinions on draft texts for legislative reform, draft regulations or acts pursuant to legislation and any other matter concerning classified installations. Some of these consultations are mandatory.

## CHEMICAL RISKS - Management

- **Ministry of the Interior, Internal safety and Local freedoms – Directorate of Civil Defence and Safety (French abbreviation DDSS):** it is competent for the preparation, coordination and implementation of civil protection measures, for policy aimed at public protection, prevention of civil risks of any kind and for the planning of civil defence and safety measures; relief actions aimed at the safety of people and property, in both peace-time and times of crisis; civil protection intervention resources; assistance for local relief and fire-fighting services; (promotion of civil protection teaching and training of fire safety officers).

### Other Ministries with specific competence:

- **Ministry of (Economy, Finance and) Industry**
- **Ministry of Health and Social Protection**
- **Ministry of National Education, Teaching and Research**
- **Ministry of Employment, Labour and Social Cohesion**
- **Ministry of Defence**

## 3. Coordinating authorities

### Prevention:

**CIDD - Joint Ministerial Committee for sustainable development**, created by Decree no. 2003-145 of 21 February 2003

The Joint Ministerial Committee for sustainable development (CIDD) took the place of three existing bodies: the Joint Ministerial Committee for the environment (CIEN), the Joint Ministerial Committee for combating the greenhouse effect (CIES) and the Joint Ministerial Committee for prevention of major natural risks (CIPRNM).

It has the task of framing, running, coordinating and ensuring implementation of government policy on sustainable development. In this connection, it has adopted the national strategy for sustainable development. It ensures that it is implemented and updated. It checks that the action taken by each Ministry is consistent with the sustainable development policy decided on by the Government, particularly in the adopted positions and commitments of France at European and international level.

<sup>41</sup> By chemical risks, we mean the risks created by the presence of hazardous substances, in quantities equal to or above a certain threshold limit. The list of hazardous substances and the threshold limits are specified in appendix I to the Order of 10 May 2000 on prevention of major accidents involving hazardous substances or preparations



*Article 2 The Joint Ministerial Committee for sustainable development shall be chaired by the Prime Minister, or upon his delegation, by the minister responsible for sustainable development. It shall comprise all the members of the Government. (...)*

*Article 3 The Joint Ministerial Committee for sustainable development shall define the thrusts of government policy fostering sustainable development, particularly in respect of greenhouse gases and the **prevention of major natural risks**, and ensure that they are implemented. For that purpose: 1. it shall adopt the national strategy ... 2. it shall approve the action plans ... 3. it shall adopt an annual report ...*

*Article 5 Each minister shall appoint a senior official with the task of preparing their ministry's contribution ...*

**COPRNM - The Steering Council for the prevention of major natural risks**, re-established by the decree of 1 August 2003

The COPRNM has the task of bringing together representatives of civil society and local and regional authorities in order to involve them in the framing and implementation of sustainable development policies. In this context, it acts in particular as a body of consultation and proposal throughout the process of drawing up the national strategy for sustainable development.

*Article 1 A steering council for the prevention of major natural risks is hereby created under the auspices of the minister for ecology and sustainable development.*

*Article 2 The steering council for the prevention of major natural risks is responsible for issuing opinions and making proposals on the prevention of natural risks.*

*Article 3 Its members shall be drawn from the ministries sitting on the Joint Ministerial Committee for sustainable development, one representative of the national defence, ten individuals from insurance companies, representatives of ministries responsible for finance, infrastructure, housing, research, the environment and local authorities, 3 deputies from the National Assembly and 3 senators.*

### **CSIC - The Higher Council of Classified installations**

The Higher Council of Classified installations comes under the Minister for the Environment and has responsibility for examining issues relating to classified installations. The Environment Code (title one, book V), the decree of 21 September 1977 and other texts, including ministerial orders, provide for consultation of the Council.

The membership and functioning of the Higher Council of Classified installations where environmental protection is concerned are laid down in decree no. 76-1323 of 29 December 1976.

The Council comprises 6 *ex officio* members (representatives of various authorities), 7 personalities chosen for their expertise in the field of public nuisances or health, 7 individuals representing the interests of operators of classified installations, 7 inspectors (or former inspectors) of classified installations, 2 members of the French Higher Council for public health, 2 members of environmental protection associations and one member from each authority directly concerned by any given question placed on the agenda. The chairman and vice-chairman are chosen from the Council's members.

The Council meets when convened by its chairman who may, in certain cases, call on outsiders to attend the meeting. Some questions may come under special consideration by working groups set up for the purpose.

The Higher Council of Classified installations met 8 times in 2000. In addition to various questions and the adoption of meeting reports, the Council examined:

- 11 draft decrees, 3 of which concerned changes to the nomenclature of classified installations and one the closure of an establishment;
- 25 draft orders laying down operating instructions pursuant to articles 7 and 10-1 of the law of 19 July 1976 on protection of the environment;
- 1 draft circular;
- 11 other matters (draft orders licensing laboratories to measure particles in emissions, requests for derogations to provisions of ministerial orders laying down instructions applicable to classified installations subject to authorisation).

## **Management:**

### **CNPC - National Council for civil protection**

The CNPC brings together 41 organisations active in all the sectors of civil protection. Its task is to draw up opinions on draft laws or proposals for laws concerning civil protection, their consequences and their application<sup>42</sup>.

### **COGIC – Operations Centre for joint ministerial crisis management**

Liaising constantly with the National Police Operations Centre and the CPCO (Centre for planning and running operations) of the Ministry of Defence, the COGIC provides a constant flow of information to the private office of the Minister of the Interior, proposes intervention measures, prepares and coordinates the action of governmental intervention resources.

To carry out its tasks, the centre uses a vast network of partners:

- local players in civil safety: defence zone headquarters, defence zone secretariats, prefects and their teams as well as all the operational units of the DDSC;
- the governmental network which federates and groups certain departments under the Prime Minister (national defence secretariat, secretariat of the Joint Ministerial Committee on nuclear safety) and senior defence officials and their departments with the Ministries maintain ongoing contact with the COGIC;
- the network of operations centres linking up different centres specialising in a specific area (national road information centre, CPCO, crisis unit of the Ministry of Foreign Affairs, operations centre of the DGPN or the national police).

## ***Two new structures are to be set up under Law no. 2004-811 on modernisation of civil safety:***

### **CNSI – National Conference of Fire Services**

Provided for in the Law 2004-811 on modernising civil protection (Article 44), the CNSI is to be set up under the minister responsible for civil protection and will comprise members of parliamentary assemblies, at least a quarter of them representatives of volunteer and professional firemen, representatives of the State and, for the majority, representatives of the governing boards of *département*-level fire and relief services.

The CNSI will be consulted on draft laws or regulatory acts regarding the tasks, organisation, functioning or financing of fire and relief services. It will be able to make recommendations.

<sup>42</sup> Regarding the Law on modernisation of civil safety: "a draft law, presented to the Council of Ministers on 25 February 2004 also provides for the setting up of a National Council for civil safety to inventory risks and analyse the country's preparedness for them. The CNPC regretted that this Council was not a joint ministerial one, to which the representative of the Minister of the Interior replied that rather than being just another joint ministerial body it would be more effective as an independent body of experts drawing up opinions." Source: *Préventique Sécurité* no. 74, the author Michel Turpin concluded his article with the comment: "from my viewpoint, I note with some surprise that the word 'prevention' was absent from discussion."

### **CNSC – National Council for Civil Safety**

As indicated in the main thrusts of civil safety policy, appended to the 2004 Law on modernisation of civil safety, a National Council for Civil Safety, to be set up under the Minister of the Interior, will be the means of checking the state of preparation for risks of all kinds.

*It will not compete with the efforts of the bodies already involved in prevention or forecasting but capitalise on their expertise and that of the ministries responsible for the different risks, by encouraging the convergence of research data and experience-based feedback. It will go beyond mere knowledge of these resources and ensure that they are pooled for the benefit of planning, preparation and operational management. It will draw up a typology of risks and threats and analyse their consequences together with the related crisis management procedures.*

*Chaired by the minister responsible for civil safety, the Council will bring together collegial units representing the main authorities concerned, the large public service operators, the bodies engaged in research and expert analysis that are most directly involved and, of course, elected representatives and players in the relief sector, particularly the French Red Cross and the National Civil Protection Federation. It will report on its work to the Government, at a plenary assembly where the missions entrusted to it will be reported on publicly.*

*These efforts will be pursued at local level in a **département-level council for civil safety**, placed under the prefect and given general powers in the field of protection of the public. Like the National council, it will mobilise the expertise of bodies involved in prevention, forecasting and relief (representatives of local politicians, professional organisations, state departments, public services and associations etc) and work to pool their experience and initiatives.*

### **The devolved level: the prefecture**

It is above all at the initiative of prefects that poles of expertise tasked with tackling risks through concerted horizontal efforts are being developed alongside the networks of expertise and technical know-how generally deployed for problems on a vertical basis.

There are several types of existing and envisaged prevention measures: preventive information, weather alerts (and ultimately rainfall alerts), risk prevention plans, earthquake-resistant building regulations, high-water warnings, conformity of certain installations prior to operation, checks run during operation etc.

### **For prevention:**

#### ➤ **Département-level Commissions for the prevention of major natural risks<sup>43</sup>:**

These commissions are chaired by the prefect and made up of elected local authority representatives and representatives of the public establishments for inter-commune cooperation, local and regional public establishments, professional organisations, administrations, relief services and state public establishments concerned. These commissions give their opinion on the action to be taken in order to develop knowledge of risks, particularly with regard to awareness-building programmes, information documents, demarcation of erosion and retention zones, prevention plans etc.

#### ➤ **CLIC - Local information and consultation committee<sup>44</sup>:**

<sup>43</sup> a chapter V has been added to section VI of volume V of the Environment Code by Law no. 2003-699 of 30 July 2003

<sup>44</sup> cf. Article L. 125-2 of the Environment Code (as amended by Law no. 2003-699 of 30 July 2003 on the prevention of technological and natural risks and the repair of damage)

*"The prefect shall create a local information and consultation committee for the risks for any industrial area containing one or several installations included on the list set out in part IV of article L. 515-8. The committee may call on the expertise of recognised experts, particularly with a view to third party expert appraisals. It shall be informed of any incident or accident affecting the safety of the aforementioned installations. It shall be provided with resources to fulfil its tasks by the State. The conditions governing the application of the present paragraph and in particular the rules governing the membership of local information and consultation committees for risks shall be established by decree."*

➤ **SPPPI – Permanent Secretariat for the Prevention of Industrial Pollution:**

Permanent Secretariats for the Prevention of Industrial Pollution have been set up where the concentration of industrial activities has made this desirable. These structures bring together all the parties concerned (elected representatives, administrations, industrialists, experts, environmental protection associations) and help to identify the thrusts of local policy on prevention of industrial pollution and risks. Regular meetings of various committees (on water, air, industrial risks, information) provide a means of reviewing the situation of the installations concerned, setting up pollution reduction programmes and monitoring their implementation.

➤ **DRIRE – Regional Directorate of Industry, Research and Environment:**

In the area of environmental protection, the regional directorates of industry, research and environment carry out monitoring work on behalf of the ministry responsible for the environment, under the authority of *département* prefects.

They also have the task of acting as a driving force in the prevention of major technological risks.

In addition to analysing and critically examining studies on dangers submitted by operators, the regional directorates' main activities in the area of risk prevention are:

- drafting specific orders made binding on the operator by prefectural decree: planning rules, operating instructions, means of surveillance and monitoring of installations, safety arrangements etc;
- inspections to check that these measures are correctly applied and, where necessary, that changes have been made to improve the safety level of the establishment,
- involvement in the drawing up of relief plans (POI<sup>45</sup> and PPI<sup>46</sup>, or PSS<sup>47</sup>) and in drills, particularly with a view to improving their operational effectiveness and the quality of relief;
- involvement in informing the communities exposed to risks and explaining what to do in case of accident;
- initiating procedures aimed at controlling urban development in risk zones around establishments, particularly through local urban development plans, urban planning or public utility restrictions.

➤ **CDSC – Departmental Council for civil safety – new structure to be set up**

This new structure is provided for in the main thrusts of civil safety policy set out in the appendix to the 2004 law on modernisation of civil safety (see above).

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<sup>45</sup> POI: Internal Operations Plan

<sup>46</sup> PPI: Special Intervention Plan

<sup>47</sup> PSS: Specialised Emergency Plan

**For management:**

- In each prefecture, a **Joint Ministerial Civil Defence and Protection Service (SIDPC)**, directly assigned to the private office, has the task of providing the prefect with ongoing assistance for managing risks and crises.

**4. Organisation of major risk management in France**

In France it is generally the State which establishes the risk. This is done via each ministry responsible for the area concerned, those responsible for health or agriculture for example where biological risks are concerned or the ministry responsible for industry regarding mining or nuclear risks. It is also the State which establishes and develops a prevention policy relayed at local level (regional and *département*-level) by decentralised departments of the State.

For the two risks of interest to us in the present study, floods and chemical risks (Seveso), it is principally the Ministry of Ecology and Sustainable Development which is responsible for the prevention of these risks.

For crisis management, it is the Ministry of the Interior, which is indeed the case for any type of crisis.

Action at national level is typified by:

1. a mainly vertical approach, with each Ministry managing 'its risk(s)'
2. the legislative, financial and supervisory competence of the decentralised departments of the State.

Both in risk prevention and crisis management, given the diversity of risks, several structures are involved in the process and, in most cases, the different strands are drawn together at *département* level, with the prefect representing the State. So it is at this level, at the initiative of prefects, that poles of expertise tasked with tackling risks through **concerted horizontal efforts** are gradually being developed alongside the networks of expertise and technical know-how generally deployed for problems on a vertical basis.

There are several types of existing and envisaged prevention measures: preventive information, weather watches (and ultimately rainfall watches), risk prevention plans, earthquake-resistant building regulations, high-water warnings, conformity of certain installations prior to operation, checks run during operation etc.

Emergency planning (which relates more specifically to civil safety) is a field in itself. Essentially it entails planning the organisation of relief in the event of a disaster and specifying the command chain. There are several types of relief plans, all set in motion by the prefect: the ORSEC plan (an old concept but still relevant because it is practical), special intervention plans for fixed installations (nuclear power, Seveso etc), specialised relief plans for all other types of accident. Red-alert plans are launched where there are numerous victims and are generally run in conjunction with the foregoing plans. This entails planning by the State, which mobilises the public services and, where applicable, private players in the light of their expertise or the material resources they dispose of.

**A. Consultation and coordination prior to any new legislation**

It is clear from the names of the ministries that were signatories to the last two major laws on risk management that there is collaboration between ministries in this area:

Five ministers' names were on the 2003 law on the prevention of risks<sup>48</sup>: the Prime Minister, the Minister for the Interior, Internal Security and Local Freedoms, the Minister for the Economy and Industry, the Minister for Infrastructure, Transport, Housing, Tourism and the Sea, the Minister for Ecology and Sustainable Development.

For the 2004 law on modernisation of civil safety<sup>49</sup> there were 12 of them: the Prime Minister, the Minister of State, the Minister for the Economy, Finance and Industry, the Minister for National Education, Higher Education and Research, the Minister for the Interior, Internal Security and Local Freedoms, the Minister for Employment, Labour and Social Cohesion, the Minister for Defence, the Minister for Health and Social Protection, the Minister for Infrastructure, Transport, Spatial planning, Tourism and the Sea, the Minister for the Civil Service and State Reform, the Minister for Culture and Communication, the Minister for Overseas affairs, the deputy Minister of the Interior, government spokesman.

These laws are not merely a compilation of articles relating to spheres of competence of different ministries; an entire procedure of consultation and coordination regarding drafting is conducted before a text is prepared and submitted to parliament for approval.

These consultations take place as follows: one minister takes the initiative of producing a legal text to cover a specific issue and convenes a joint ministerial committee to prepare the work. The fact of convening the committee already prompts reflection, on the one hand, on all the aspects relating to a specific issue and therefore making it necessary to invite other ministerial departments to participate and, on the other hand, on the appropriate response: through either a new legal text or amendment of existing texts or possibly some other measure. A member of the Council of State, assigned for the duration of the work, sits on the Committee in connection with the legal drafting. Following a consultation procedure, a draft (a blueprint) is drafted and submitted to the Council of Ministers.

These preparatory meetings, firstly technical and then political, give the best guarantee of achieving a consensus, indispensable for problems of society such as risks, which are by definition cross-sectoral and therefore inter-ministerial.

### ***Safety in everyday life: everyone's business***

While for industrial risks it is the operator who undeniably bears chief responsibility for preventing the risks he has created for humankind and the environment, the new law on modernisation expressly stipulates that *"every individual shall contribute to civil safety through their behaviour. Depending on the situations with which they are confronted and within the scope of their possibilities, they shall do their utmost to warn the relief services and take the initial action required."* (Article 4)

To raise public awareness, Article 5 of the law provides for the inclusion of risk culture education in school curricula.

### ***B. Details of organisation regarding Seveso-classified chemical risks***

Within the Ministry for Ecology and Sustainable Development<sup>50</sup>, the Directorate of Prevention of Pollution and Risks is responsible in particular for the prevention and reduction of risks linked to industrial or agricultural installations handling hazardous substances. The Bureau of Technological Risks and Chemical and Oil Industries (BRTICP) is specifically assigned to these tasks.

The BRTICP draws up relevant national technical regulations and ensures that they are applied, on the one hand to all classified installations in connection with prevention of risks of accident and, on the other hand, to the chemicals and oil sectors. The bureau's tasks are by

<sup>48</sup> Law no. 2003-699 of 30 July 2003 on the prevention of technological and natural risks and the repair of damage

<sup>49</sup> Law no. 2004-811 of 13 August 2004 on modernisation of civil safety

<sup>50</sup> Source: [www.ecologie.gouv.fr](http://www.ecologie.gouv.fr)

nature highly technical and require scientific and general technical knowledge in the field of industrial risks and processes.

The bureau's staff are assigned to one or several sectors of activity relating to hazardous substances and types of risk (fire, explosion, toxic emissions, electrical etc). In those sectors they must be familiar with the key contacts, the issues and the techniques where the control of risks is concerned, at both national and international level.

This remit requires them to work in liaison with the directorates of the other ministries concerned with industrial safety: Ministry of the Economy, Finance and Industry, Ministry of the Interior, Internal Security and Local Freedoms, Ministry of Infrastructure, Transport, Spatial planning, Tourism and the Sea, Ministry of Employment, Labour and Social Cohesion.

France's legal framework for controlling Seveso-classified risks<sup>51</sup> consists on the one hand of legislation on classified installations and, on the other hand, of specific legislation in the form of the order of 10 May 2000<sup>52</sup>, supplemented by the law of 30 July 2000<sup>53</sup>.

This legislation places emphasis on controlling the risk at source. As the source of industrial risks is linked to processes, storage and manipulations involving different products in industry, it is first and foremost for the operator generating the risks to take all the necessary measures to prevent them and limit their consequences for mankind and the environment in the event of an accident:

- the legislation on classified installations focuses above all on obligations of a technical nature;
- the specific Seveso legislation concentrates on provisions of an organisational nature to be taken by operators regarding prevention of major accidents involving hazardous substances.

In this framework, the operator must:

- identify and analyse the risks linked to their activity;
- evaluate the scope and seriousness of consequences of major accidents identified through analysis of past and potential accidents;
- devise a safety management system proportionate to the risks of major accidents that may be generated by the hazardous substances present on their premises;
- help to inform the public and their staff (public information campaigns focus on the nature of risks and the safety instructions to be followed and are coordinated by state services but entirely funded by the entity generating the risk);
- draw up an internal operations plan (French abbreviation: POI) for "Seveso high threshold" installations;
- draw up an internal plan for "Seveso low threshold" installations if the prefect thinks it necessary;
- provide all the necessary information for the preparation of special intervention plans (PPIs);
- cooperate as regards further consultation between local players with a view to demarcating zones where planning restrictions around the establishment are necessary to limit the consequences of accidents;
- ...

The legislation on classified installations introduces a simple system based on an integrated approach.

<sup>51</sup> adopted pursuant to European Directive 96/82 Seveso of 9 December 1996

<sup>52</sup> Order of 10 May 2000 on the prevention of major accidents involving hazardous substances or preparations present in certain categories of installations that are classified for the protection of the environment and subject to authorisation

<sup>53</sup> Law no. 2003-699 of 30 July 2003 on the prevention of technological and natural risks and the repair of damage

- Simple system: the industrial activities coming under this legislation are inventoried in a listing making them subject either to a system of authorisation or to a system of declaration.
- Integrated approach: a single authorisation is issued for an industrial site in respect of environmental protection. The integrated approach makes it possible to take all the effects on the environment into account<sup>54</sup>.
- Integrated approach: a single authority is competent for the application of legislation: the State, operating via the prefect, assisted by technical services.

This means that the main authority regarding Seveso risks is the *département's* prefect:

For prevention:

- this is the person who receives applications to authorise classified installations, conducts all the necessary procedures and issues authorisations; for that purpose they have at their disposal an environment office, which handles the various consultations; for the technical aspects, they rely on inspection of classified installations; they call on the *département's* health council for opinions;
- they may ask for an expert appraisal from a third party (critical analysis of file evidence, at the operator's expense), where this is justified by the dangers or drawbacks of the installation;
- they then have the responsibility of ensuring compliance with the measures adopted and taking any necessary measures;
- two public information documents are produced under the authority of the prefect, generally by the Joint Ministerial Civil Defence and Protection Service (SIDPC): the *département* file on major risks and municipal summary files;
- the prefect also orders, prepares and approves plans for the prevention of technological risks (PPRTs, introduced by the law of 30 July 2003) following coordination and consultation with local authorities and public inquiries.

For the preparation of intervention:

- it is also the prefect who prepares PPIs (special intervention plans) in collaboration with the relief services, all the public services concerned (police, DDE<sup>55</sup>, DRIRE<sup>56</sup> etc) and with the assistance of the operator.

For intervention operations:

- it is the prefect who launches emergency plans: Orsec etc.

Where urban development is concerned, the Urban Planning Code places mayors under obligation to take account of technological risks in their urban planning documents. This only concerns classified installations subject to authorisation with public utility restrictions (the Seveso high-threshold installations). The boundary marking of the area where planning is restricted is appended to the local urban development plan (PLU). It is the State which informs local authorities of risk zones, through special notices. The State is represented by the prefect, who bases the information on residual scenarios in the study of dangers.

The prefect therefore provides an excellent example of how all the aspects linked to risk management can be integrated: prevention of risks, preparation of intervention operations through planning, application of plans during crisis management, feedback machinery and rehabilitation as well as supervision and sanction machinery.

<sup>54</sup> This differs from the European directive on IPPC (Integrated Pollution Prevention and Control) which establishes legislation, at the level of the European Union, similar to the French system but removes industrial risk from the equation (this being covered by the Seveso Directive).

<sup>55</sup> DDE: *Département*-level Directorate of Infrastructure

<sup>56</sup> DRIRE: Regional Directorate of Industry, Research and Environment



### ***C. Details of organisation regarding the risk of flooding<sup>57</sup>***

Contrary to the case of industrial risks where the main player in prevention is the site operator manipulating hazardous substances, the State is the prime guarantor of public protection against natural risks, such as the risk of flooding, independently of the responsibility of each citizen<sup>58</sup>.

The responsibility incumbent on the public authorities is split between the State and the *communes*.

The mayor has overall responsibility for prevention, based on the General Code of *communes*, and a specific obligation regarding the issue of building permits and public notification of the risks.

As for industrial risks, it is also the job of the mayors of the *communes* whose territory is covered by a plan for preventing foreseeable natural risks to inform the local community at least once every two years of the characteristics of natural risks in the *commune*, the possible prevention and protection measures, the measures set out in the plan, alert procedures, organisation of relief, measures taken by the *commune* to manage the risk and the financial guarantees provided for. And as in the case of industrial risks, it is the *département* prefect who makes this information available to the mayors, with the assistance of the competent state departments.

The State's role in the prevention of natural risks is configured around the following responsibilities:

- in general: implementation of policy by the State through regulation, financial and operational support<sup>59</sup>;
- tasks expressly assigned to the State:
  - identification of zones subject to flooding (knowledge of phenomena and mapping);
  - flood risk prevention plans (steered by the Ministry of Ecology and Sustainable Development – Directorate of Prevention of Pollution and Risks, in collaboration with the Ministry of Infrastructure and Housing – Directorate general of Urban planning, Habitat and Construction);
  - organisation of a service providing warnings of high water levels, through a Central service for hydrometeorology and support for flood forecasting (SHAPI) and the high-water forecasting services (SPC);
  - maintaining free water drainage for state water-courses;
  - public information based on the atlas of zones subject to flooding and the *département* files on major risks;
  - constituting and managing a fund for the prevention of natural risks;
  - authorisation for the construction of dikes and embankments.

Most of these tasks fall to the *département* prefects, who rely on the expertise of decentralised services such as the DIREN<sup>60</sup>, DDE<sup>61</sup>, DDAF<sup>62</sup>, RTM<sup>63</sup> etc.

<sup>57</sup> "According to a report published in 1999, floods affect some 10% of the national territory; yet there are still gaps in our knowledge pointing to the need to undertake and further research". The same sources indicate that floods are the most common hazard in our country." Source: Parliamentary Office for evaluating scientific and technological choices – report by Mr C. Kert, Deputy no. 1540 Ass. Nat. Et 312 Senat, April 1999, *Les techniques de prévision and de prevention des risks natural en France*, p. 93 onwards.

<sup>58</sup> Article L110-2 of the Environment Code: laws and regulations establish and govern the right of everyone to a healthy environment and help to ensure a harmonious balance between urban areas and rural areas. **It is everyone's duty to make efforts to safeguard the environment and contribute to its protection. Public and private entities shall, in all their activities, comply with the same requirements.**

<sup>59</sup> There is reinforced state funding in 34 catchment areas for the implementation of flood prevention plans which will improve public information and the operational capacities of building owners and encourage "soft techniques" such as the restoration of flood plains.

<sup>60</sup> DIREN: Regional Directorate of the Environment

<sup>61</sup> DDE: Regional Directorate of Infrastructure

While flooding is a natural phenomenon threatening communities at all times, a number of human factors have certainly heightened exposure to this danger, including: building in the flood plains of rivers, sealing of ground surfaces, clearing vegetation and changes in agricultural techniques. Action to lower exposure and reduce the risk at source therefore requires a multidisciplinary approach.

There are two tools promoting a global and multidisciplinary approach to the risk of flooding: flood risk prevention plans and strategic plans.

It was the Law of 2 February 1995 on reinforcement of environmental protection (from articles L.562 and following of the Environment Code) that introduced plans for preventing natural risks<sup>64</sup>.

Risk prevention plans are prepared under the authority of the *département* prefect, generally by the Regional Directorate of Infrastructure assisted by specialised studies offices. Efforts are made to consult all local players.

Risk prevention plans are produced for each risk catchment area (zone affected by the risk, because it either contributes to the risk or is subject to it) using a global, qualitative approach covering several *communes*. The plans cover land use, construction, exploitation of land and public safety. They propose measures adapted to the scale of risks and proportionate to the sought aim of prevention.

The approved risk prevention plan is tantamount to restriction in the public interest. It is universally binding - on private individuals, companies, authorities and the State - particularly where the issuing of a building permit is concerned. If it relates to areas covered by a land use plan (POS), it must be appended to it.

The procedure for preparing risk prevention plans comprises 3 phases:

- ordering the plan by prefectoral order;
- public inquiry and consultation of municipal councils by the prefect, these being the official rounds of consultation on the risk prevention plan;
- approval embodied by prefectoral order is the final stage of preparation, triggering the period of application of the restriction.

Between the initial order and consultations there is a series of inquiries, also requiring consultation: gathering of knowledge of the risk, identifying characteristics of the risk, identifying the issues and producing the actual plan (demarcation of zones, prescriptions for new buildings and definition of general prevention measures and measures applying to the existing stock).

Approval by the prefect is generally given within 4 months following the official consultations. The whole procedure takes about 3 years. The initial order signals the intention to produce a risk prevention plan, and approval is the starting point for its application.

One particularly interesting tool is the strategic plan for the prevention of natural risks (Article L. 565-2 of the Environment Code). The strategic plan specifies the actions to be taken in the *département* as regards:

- knowledge of the risk;
- surveillance and forecasting of phenomena;
- information and education on risks;
- consideration of risks in spatial planning;
- work aimed at reducing the risk;
- feedback (to be incorporated in prevention plans, specialised relief plans and alert and pre-alert procedures)

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<sup>62</sup> DDAF: Regional Directorate of Agriculture and Forests

<sup>63</sup> RTM: Restoration of Mountain Land

<sup>64</sup> Source: "Catastrophes naturelles and plans de prevention des risks" in *Les données de l'environnement*, no. 73, March-April 2002; and "Dossier d'information Inondation" [information file on flooding] from the Ministry of Ecology and Sustainable Development

The cross-sectoral approach is apparent, on the one hand, in the fact that the entire risk management cycle<sup>65</sup> is covered, from knowledge of the risk to feedback, and, on the other hand, in the players helping to prepare the strategic plans: local authorities and public establishments for inter-*commune* cooperation are involved, and the *département* commission on major natural risks gives its opinion.

### **Surveillance and alert**

16 000 km of water-courses, of the 22 000 in flood plains, are monitored by the 53 high-water announcement services, which in most cases are part of the Regional Directorate of Infrastructure (DDE) or the Regional Directorate of the Environment (DIREN), with funding from the Ministry of Ecology and Sustainable Development, Water Directorate. These services have an automated data gathering network and pass on information to prefects (by telephone, radio or satellite) who then decide to alert the mayors of each locality.

## **D. Common points of floods and chemical risks: emergency planning and management of intervention<sup>66</sup>**

At the level of the State, risk prevention, like the protection of people and property, requires studies, used to draw up plans, plan organisation, adopt measures and build up substantial, specialised resources. Numerous administrations and services are involved in civil safety and the responsibilities are shared between ministries, *départements* and *communes*.

The distribution of tasks underlying the organisation of civil safety is fairly complex as those involved come under different ministries (Interior, Defence, Health etc). But, save in exceptional circumstances, it is the prefects and mayors who share responsibility for preventing accidents and directing relief operations.

The director of Civil defence and safety guides and coordinates the services tasked with:

- preparing and carrying out measures concerning protection of the public;
- preventing civilian risks of any kind and planning civil defence and safety measures;
- relief operations to secure the safety of people and property, in both peace-time and times of crisis;
- intervention resources for civil safety;
- assisting local relief and fire-fighting services and drawing up the texts governing fire and emergency teams;
- promotion of civil safety teaching and training of fire and emergency service officers.

As Article 1 of Law no. 2004-811 on modernisation of civil safety states<sup>67</sup>: *the State shall be the guarantor of the coherence of civil safety at national level. It shall define the underlying principles and coordinate its resources. It shall make an ongoing assessment of preparedness for risks and ensure that public information and alert measures are duly implemented.*

### **The commune-level safeguard plan**

The law on modernisation of civil safety introduced (in Article 13) the notion of *commune*-level safeguard plan. These plans are mandatory in the *communes* which have a plan for the prevention of foreseeable natural risks or fall within the scope of a special intervention plan.

**They must be compatible with relief organisation plans (Orsec plans).** They bring together all the documents falling within the *commune*'s competence which contribute to preventive information and protection of the local community. They determine, in relation to the known risks, the immediate measures for safeguarding and protecting the public,

<sup>65</sup> "Prevention – Forecasting – Management of the event – Return to normal – Feedback" cycle

<sup>66</sup> main source: [www.interieur.gouv.fr](http://www.interieur.gouv.fr)

<sup>67</sup> This law repealed law no. 87-565 of 22 July 1987 on organisation of civil safety

establish the necessary organisation for passing on alerts and safety instructions, inventory the resources available and specify implementation of measures of assistance and support for the local population. **They may designate the deputy mayor or municipal councillor responsible for civil safety matters.**

Law 2004-811 on modernisation of civil safety also introduces the obligation to carry out an **analysis of risks** (Article L. 1424-7 of the General Local Authorities Code, amended).

Following an opinion from the General Council, the State's representative in the *département* finalises the *département*-level strategic plan on the positive opinion of the governing board of the *département's* fire and relief services.

A *département*-level strategic plan analysing and covering risks inventories all the different risks to the safety of people and property that must be handled by the fire and relief services in the *département*, and sets objectives for the services' coverage of those risks.

There are two means of preparing organisation of relief: Orsec plans and emergency plans.

### **Orsec plans**

Relief organisation of a special scale or nature is specified, in each *département*, in each defence zone and at sea, by a plan called the "Orsec plan"; there are 3 types of Orsec plan: *département*-level, zone-level and maritime.

The *département*-level Orsec plan determines the overall organisation of relief, in the light of the risks existing in the *département*, and inventories all the public and private resources that might be used. It establishes the conditions of their use by the authority competent to direct relief. The *département*-level Orsec plan is decided on by the prefect (with a few exceptions).

The plan contains general provisions applicable in any circumstances and provisions specific to certain individual risks. In the latter case, it assigns the command of relief operations.

The zone-level Orsec plan follows the same philosophy and is drawn up for 2 *départements* or if the resources of one *département* are inadequate. It is decided on by the zone prefect.

The same applies to the maritime Orsec plan which is drawn up for the risks existing at sea and decided on by the maritime prefect.

### **Emergency plans**

Emergency plans are drawn up to cover a defined and/or localised risk: special intervention plans for the most dangerous sites, red-alert plans, designed to provide relief for a high number of casualties and specialised relief plans.

### **Intervention plans**

Cf. Article 15. of the 2004 law: the specific provisions of Orsec plans cater for the measures to be taken and relief to be implemented for risks of a special type or linked to the existence and operation of specific installations or structures. A Council of State decree lays down the characteristics of installations and structures for which the Orsec plan must establish a special intervention plan, following opinions from the mayors and operators involved, indicating the measures incumbent upon the operator under supervision of the police authorities. The decree also determines the categories of installations and structures for which the special intervention plans must be subject to public consultation, the procedures for that consultation and the conditions in which the plans are made public.

### **Management of intervention operations**

The Mayor, as the State's representative in the *commune*, bears prime responsibility for organising relief on the territory of the *commune*. Directing relief operations is the preserve of the competent police authority (contrary to Belgium, where it is the chief of the fire service).

In cases where the event reaches beyond the boundaries of a *commune*, it is the prefect who directs relief operations and launches the Orsec plan. Where necessary, it is also the prefect who launches the special intervention plan and directs relief.

The zone prefect takes over if several *départements* are affected.

When the *départements* affected come under 2 different defence zones, the prefect in charge is designated by the competent administrative authority.

Beyond this point it is the Minister of the Interior, with the Directorate of Civil Defence and Safety (DDSC), who takes the necessary measures to protect the public.

In the event of a disaster at sea, relief efforts are directed by the maritime prefect concerned.

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To conclude this section, we wish to cite – as an example of feedback - a few passages from **French National Assembly report no. 3559 by the Commission of inquiry into the safety of industrial installations and research centres and the protection of people and the environment in the event of a major industrial accident**, of 29 January 2002.

*The report was drawn up following the AZF Toulouse accident and contains 90 proposed changes for improving the existing system applying to major technological risks.*

*This remarkable work is virtually a check-list raising questions over every aspect of risk management (prevention, management, rehabilitation and inspection). We cite only those of particular interest to this study, especially those aimed at strengthening links between authorities responsible for risk prevention and crisis management:*

- Proposal no. 7: Provide for the possibility of epidemiological monitoring of employees and local residents under the special intervention plan.

(point made in the text) Progress in the field of industrial safety called for by the disaster in Toulouse must necessarily include swift action to develop epidemiological studies and the setting up of monitoring around the most sensitive sites.

**=> this is about greater inclusion of public health aspects in crisis management**

- Proposal 8: Develop a harmonised European deterministic method for studying dangers
- Proposal 9: Develop a harmonised probabilistic European method for studying dangers
- Proposal 10: Undertake and swiftly complete a research programme looking at the complementarity of deterministic and probabilistic methods with a view to defining a single European method for studying dangers.

**=> Various proposals emphasise the importance of initiatives at European level, in particular joint studies and research and the widest possible dissemination of the findings.**

- Proposal no. 15: Establish an obligation to provide notification of any event concerning the safety of a Seveso-classified installation.

(point made in the text) Feedback in the area of industrial safety corresponds to a continuous learning process in this field whose lessons must be shared as broadly as possible, as risk prevention is an objective shared by all enterprises.

- Proposal no. 18: Back the setting up of databases on the reliability of industrial installations
- Proposal no. 19: Integrate the BARPI<sup>68</sup> into the INERIS<sup>69</sup>

<sup>68</sup> BARPI: Bureau for Analysis of Industrial Risks and Pollution

<sup>69</sup> INERIS: National Institute of the Industrial Environment and Risks

(point made in the text) The role of the BARPI is to collect, analyse and record reports of incidents and accidents sent to it by the classified installations inspectorate in a database with a view to their broader dissemination. The BARPI also runs a question-reply service used by design offices, relief organisations and training bodies. Integrating it into the INERIS could help to improve its work and services in quantitative and qualitative terms, and make up for cruelly lacking funding.

- Proposal no. 20: Develop a European network of databases on industrial risks.

(point made in the text) ... with a view to broadening the knowledge base of all the member countries.

- Proposal no. 21: Set up permanent European product groups under the auspices of the European Commission

(point made in the text) A European approach to industrial safety is clearly indispensable, as it would make it possible to systematise the cooperation efforts initiated between different branches with varying degrees of success to date and pool differentiated experience that may prove to be complementary.

- Proposal no. 24: Develop cross-sectoral research into industrial safety

(point made in the text) heightening expertise in the field of industrial safety hinges on a set of institutional conditions but also on increased scientific production. However, with the current organisation of research there is not adequate recognition of work on safety and security. Research in these areas is necessarily cross-sectoral, and this is poorly catered for by the National Council of universities, with its vertical structure of disciplines.

- Proposal no. 48: Use a simplified and harmonised scale for gauging the seriousness of industrial incidents and accidents.

(point made in the text) The INES (International Nuclear Event Scale) is a considerable step forward in two areas, one of these being relations between the operator of a basic nuclear installation and the safety authority and the other being public information. The interest of the INES scale, developed at international level in 1991 on the basis of the scale established back in 1987 and adopted in France in 1994 in its internationally standardised form, lies partly in the mandatory declaration of any event jeopardising an installation's safety and partly in the classification of the event by the safety authority in liaison with the operator. (...) A scale gauging the seriousness of industrial accidents has been developed at the level of the European Community and the OECD. This scale comprises 8 degrees from 0 to 7 and is used to a varying extent by regional directorates of industry, research and environment. Some would prefer an emphasis on a mixed scale reflecting both the accident's seriousness and its psychological impact.

- ⇒ Proposal no. 63: Set up a national crisis management unit capable, in the event of an exceptional disaster, of backing up the resources of the prefecture(s) concerned.

(point made in the text) This unit could also organise feedback, at national level, on full-scale emergency drills and be involved in training provided on this topic to the competent officials. Finally, it could provide specific resources in connection with aid for victims.

**=> Several proposals concern the pooling of experience, stepping up of joint efforts, setting up of databases, centralising of information and, in particular, feedback, at both national and European level.**

**Law no. 2004-811 reflects the new thrusts of civil safety policy.** Article 3 refers to the policy thrusts set out in the appendix.

The document is an excellent example of a '**mission statement**' and includes the following passages:

Protecting local communities is one of the essential tasks of the public authorities.

However, exercising this responsibility involves many other players, and **this diversity of input has become a feature of civil safety, being necessary to cope with the many different risks hanging over the public in modern society**: heavier consequences of natural phenomena, vulnerability to technological risks and malicious acts, the greater need for care for some people less well cared for by families and neighbours than before.

**Terrorist threats** are now a further key component to consider in risk prevention, as relief services may have to deal with the possible **consequences**. The involvement of these services in the overall internal security set-up is a striking development of recent times.

**Civil safety is the business of every person.** Every citizen contributes to it through their conduct. A true culture of preparedness must be developed.

The introduction of a bill on civil safety is providing an opportunity to draw up strategic thrusts for protection and relief work so that it is equal to new crises and public expectations, reaching beyond normative provisions intended to improve the functioning of services and the situation of their staff.

These strategic thrusts have two characteristics:

- they are proactive, geared to the imperative of mobilising efforts and resources to achieve **measurable progress** in tackling the consequences of the risks of civil safety and defence,
- **they impose coordination going beyond the services' usual boundaries, tasks and prerogatives, so that they work better together.**

They may be grouped under the following three lines of action:

- resolute action on risks, through **greater anticipation** (knowledge, forecasting and preparation);
- remodelling the "protection of communities" (asserting the role of the citizen at the heart of civil safety);
- **mobilising all resources**, by encouraging solidarity (organising responses to the event).

- I. Resolute action on risks (knowledge, forecasting and preparation)

Today it is necessary to **grasp the full reality of the danger**: anticipate crises, take action ahead of disasters, and focus on every civil defence and safety risk, combining prevention aspects and intervention aspects.

In this context, tackling risks entails:

- **producing a consolidated pool of knowledge of risks following a multidisciplinary approach for the first time ever, ranging from scientific analysis of phenomena to the organisation of relief**;
- rethinking operational planning,
- broadening the practice of drills to full-scale training exercises.

1. Updating the risk inventory

It is frequently pointed out that scientific work on natural and technological risks is useful but remains within the sphere of specialists, without practical conclusions being systematically drawn. Similarly, **disasters are generally followed up with in-depth analyses and feedback, but little exchange between disciplines is involved.**

**Taking these different aspects together should make it possible to cover each risk by adapting to the reality of it.** A coherent approach must be taken to:

- knowledge of the phenomenon and its consequences, in order to improve scenario description, analysis of causes, forecasting tools and the potential for preventing or attenuating effects;
- legal organisation of responsibilities;
- **while the operational aspect of handling crises seems clear and known to the authorities and the public, the same does not apply to prior action on risks. This area is very broad in scope, the responsibilities are often interwoven and the legal rules complex and little known. Clarification is needed.**
- preparation of the public and relief (operational aspect).

This approach must be pursued at national and at *département* level.

Under the Minister of the Interior, a **National Council for Civil safety** will be the mechanism for checking preparedness for risks of all kinds.

**It will not compete with the efforts of the bodies already involved in prevention or forecasting but capitalise on their expertise and that of the ministries responsible for different risks, by encouraging convergence of research data and feedback.** It will go beyond mere knowledge of these resources and ensure that they are pooled for the benefit of planning, preparation and running operations. It will draw up a typology of risks and threats and analyse their consequences together with the related crisis management procedures.

Chaired by the minister responsible for civil safety, the Council will bring together collegial units representing the main authorities concerned, the large public service operators, the bodies engaged in research and expert analysis that are most directly involved and, of course, elected representatives and players in the relief sector, particularly the French Red Cross and the National Civil Protection Federation. It will report on its work to the Government, at a plenary assembly where the missions entrusted to it will be reported on publicly.

These efforts will be pursued at local level in a **Département-level Council for civil safety**, placed under the prefect and given general powers in the field of protection of the public. Like the National council, it will mobilise the expertise of bodies involved in prevention, forecasting and relief (representatives of local politicians, professional organisations, state departments, public services and associations etc) and work to pool their experience and initiatives.

**To carry out these analyses, which require both a scientific approach and in-depth knowledge of the functioning of public services, the Government will make more frequent use of joint opinions of the inspectorates general concerned (IGA, CGPC, CGGREF, IGE, IGAS).**

Finally, these efforts must be sustained and scientific and administrative monitoring organised and maintained, providing a **continuum** with arrangements for protecting the public. **For each risk, a Ministry will be appointed as "leader"** (with an indication of the central directorate bearing responsibility) to deal with ongoing updates of scientific analysis, and recommendations for adapting arrangements for prevention, forecasting and pre-alert. It will liaise with the directorate of civil defence and safety (DDSC), which will mobilise its correspondents in the event of a crisis.

## 2. Overhaul of operational planning

Revamping operational planning is a large-scale reform. At present, there are a multitude of different emergency and relief plans and, as a result, they are often maintained haphazardly or even left in abandon.



Given this situation, planning must be simplified without losing its relevance and in a manner allowing effective updating and adaptation to modern technologies. This reform is an opportunity to rethink the whole system of planning.

The Orsec plan will now revolve around the common, simplified organisation of crisis management, backed up by an inventory of risks. The organisation of relief will be based on general, modular crisis management provisions applicable in any circumstances (Orsec "common core") and provisions specific to certain previously identified risks, backing up the general provisions (specialised relief plans, special intervention plans, red-alert plan etc). The purpose of logging risks is to compile an inventory of risks, recognised by all the players concerned and enabling them to share a common approach. **It guarantees a good fit with prevention policy.**

In addition to this new architecture, it is the actual devising of plans, their preparation and updating that must change.

**The logic of plans will shift from merely inventorying those responsible and the resources towards the planning of scenarios, geared to defining action to be taken in each situation and providing decision-makers with precise information, with reference to tried and tested procedures, to build up crisis management arrangements** (the plans will go so far as to prepare crisis announcements for example).

Each of the players concerned (main public services, local authorities etc) will be involved in preparing these arrangements and tasked with planning their own organisational arrangements accordingly: specific plans for telecommunications operators, so-called "white plans" for hospital establishments for example, and safeguard plans for *communes*).

Implementing this new planning system, within a time compatible with the issues at stake, can be put at three years and hinges on mobilising the State and especially prefectures, which are responsible *inter alia* for the functioning of crisis headquarters.

The work will be carried out at the initiative of defence zone prefects. They will monitor preparation of *département*-level Orsec plans and will be responsible for finalising the Orsec zone plan. They will ensure that these fit with any Orsec maritime plans prepared by maritime prefects. This zone-based arrangement is intended to cover disaster situations affecting several *départements* or requiring deployment of specific resources.

### 3. The move from drills to training exercises

The realism and relevance of plans will have to be tested, with input not only from public authorities and relief services but also from the public. A proper policy of varied, realistic exercises must be built up.

The new exercises will be carried out at three levels: top decision-makers and chiefs of staff; the various players involved in crises; the public. The training of "crisis managers" will be developed at local level and cover more than just the relief services. **The programming of exercises over several years, geared to the priorities identified through analysis of the risks, will ensure a coherent approach to crisis preparation.**

Examination of public reactions and expectations, particularly in the wake of recent natural and technological disasters, has prompted some development of the culture of feedback, useful to ongoing efforts to perfect arrangements for coping with risks.

**Now that this practice is more widespread, it must be improved through the sharing of tasks and the appointment of an authority responsible for ensuring a multidisciplinary approach and seeing that conclusions are disseminated to services for the improving of procedures, and to the public in the interests of transparency and public information.**

## II. Remodelling the notion of protection of communities (asserting the role of the citizen at the heart of civil safety)

Remodelling the notion of protection of communities means confirming that the people provided with relief are at the heart of any civil safety policy.

But it also means being able to count on the behaviour of informed and responsible citizens, prepared to face up to risks and threats through effective knowledge of the danger and instructions for prevention and protection, and also citizens who are capable of taking on a useful role in collective organisation at the response stage. This remodelling goes hand in hand with the necessary renewal of civil protection, traditionally within the remit of the Ministry of the Interior, the first step being **to build awareness and determine the scope of this mission in order to take the new aspects of crises into account**.

### 1. Information and training for the public

Along the lines of the culture of information and preparation for cyclone alerts, very present and a shared concern in France's overseas *départements*, steps should be taken to develop - throughout the country - preventive information concerning risks, the dissemination of messages on conduct in the event of a disaster and good knowledge of the organisation of relief. It is on the ground and in a local context that this information must be delivered to the population.

Advance information and awareness-raising help to prevent uncertainty, a feeling of powerlessness or the spread of false reports from destabilising local communities and compromising the chances of an effective collective response.

### 2. Operational monitoring and alerts

If we are to better detect crises with multiple factors and deal with them more quickly and effectively, we must take greater advantage of the monitoring tools available. Information that may be of interest to civil protection should be systematically channelled up to existing operational centres, particularly the zone operational centres (French abbreviation COZ) and the Operations Centre for joint ministerial crisis management (COGIC) at national level. This applies not only to local and regional services and state administrations but also to public service operators.

The COGIC maintains a network of correspondents in the ministries on an ongoing basis. This joint ministerial network must be mobilised at all sensitive times (population movements, meteorological alerts, large rallies, exercises).

Where alerts are concerned, the first step is to rethink the underlying doctrine. An alert is the signal providing a warning of danger and calling on the population to take safety measures. Its effectiveness hinges primarily on the identification of risk catchment areas. The transition from the stage of vigilance to one of alert requires fast, comprehensive and reliable transmission, incorporating acknowledgement that it has been received. These objectives are dictated by the imperative of informing and mobilising local authorities.

**The modernising of the alert system must be carried out in a joint ministerial framework and in conjunction with local authorities, and must be planned for.** It covers two aspects: alerts aimed at mayors and then prefectures, and general public alerts, with a definition of the new national alert system. It will be a question of combining increased use of the new technologies (automatic dialling devices, customised telephone information in the sectors at risk, text messages, variable-legend signs) with more conventional devices (sirens, amateur radio).

### 3. Commitment of everyone in the crisis and post-crisis period

This mobilisation must be organised, **as a priority, at local level and backed up by resources available at national level**. This universal commitment is envisaged in a local context and in particular at *commune* level, through a highly pragmatic plan reflecting the commitment of all in a shared safety culture.

As a local response to a crisis, complementing the intervention of services responsible for relief, **the *commune*-level safeguard plan** is prescribed by law in all the *communes* concerned by a risk prevention plan or a special intervention plan. It is designed to give practical guidance in the event of alerts and will incorporate preventive information material, a description of accident scenarios, recommendations on required conduct, as well as measures to be implemented by the *commune*. The plan has a flexible format so that it may be adapted to the size of the *commune*. For small *communes*, it may do no more than reiterate local vulnerabilities and provide an advisory note on the dissemination of alerts and the tasks of the municipal authorities. For large *communes*, the plan may provide for a crisis command centre, an organisational pattern and check-lists of tasks for technical services, an inventory of resources etc. **Preparing such a plan provides an opportunity for consultation between the public authorities and residents on risk prevention and protection of the public.**

**Furthermore, each *commune* may designate a deputy mayor or municipal councillor responsible for civil safety, who will coordinate the different measures carried out on the *commune's* territory and pass on any useful information to the person representing the State in the *département*.**

**Reponses should also be devised, geared as far as possible to the needs, for the difficulties to be overcome for a return to normal after a disaster.** There are a number of substantial measures to be taken.

**A unit for assessing emergency situations**, convened without delay, under the authority of the Prime Minister, with the director of civil defence and safety acting as secretary, must provide, in liaison with the prefectural authority, **a full and swift response** to the various needs expressed by the public.

Finally, there will be an effort to establish a generalised system of cross-sectoral units providing assistance to disaster victims. This one-stop shop will make for greater coherency in emergency procedures and make it easier to carry out all the various administrative procedures involved. This is a task for the State and devolved authorities, with input from insurance companies.

## III. Mobilising relief (Organising the response to the event)

### 1. Command

... From the operational viewpoint, managing a crisis requires a clear, recognised chain of command. The new law emphasises linkage with administrative policing and public order powers (security, health, orderly society) because the resulting command organisation is clear and provides continuity in dealing with the crisis, relative to scale: the mayor for local relief, the representative of the State for large-scale disasters.

Recent events such as the storms in 1999, the Prestige pollution accident or the forest fires of summer 2003 have borne out the significance of the zone level in the area of civil safety. It is well recognised for its **responsibilities for summary analysis** of situations and allocation of resources during the crisis and it will be required to develop further in the fields of risk assessment and supervising preparation ahead of a crisis.

## 2. The contributions of the State, the *départements* and the *communes*

The placing of fire and relief services on a *département* footing, initiated in 1996, is confirmed.

This choice stems from the desire to retain decentralised management of the fire and relief services. On a day-to-day basis, relief services must remain local.

To give this decentralised institution legitimate authority to govern the running of fire and relief services at national level, a **National conference of *département* fire and relief services** will be consulted on all national measures that may have ramifications for their organisation, tasks and budgets. Made up of associations of elected representatives, representatives of professional and volunteer firemen and representatives of the State, this consultative body will reflect majority views on plans for reform where *département* fire and relief services are concerned in order to secure the political backing that is indispensable for the steering of these services at national level.

Even so, there is no state disengagement from responsibility for relief. It finances and implements national resources, designed to complement those of the fire and relief services. The State is to set up a National centre for civil defence and safety training in Cambrai to provide training for first responders and those involved in relief, safety and health, both public and private, through classes, training sessions and exercises, in specific techniques aimed at preventing the effects of disasters of natural, technological or terrorist origin, nuclear, radiological, biological and chemical defence and operational management of crisis and post-crisis phases. **This compulsory training, in a joint ministry and joint service context, will enable them to take greater account of exceptional risks and threats going beyond the normal framework of their missions.**

Furthermore, the State will cover the cost of reinforcements from outside the *départements* made necessary by exceptional situations, following the principle: day-to-day risk, local response; exceptional situation: national solidarity.

The *communes* will no longer bear direct responsibility for financing relief on their territory: solidarity within the *département*, through the *département* fire and relief services budget will be the norm for relief operations in the strict sense of the term. The *communes* will bear the costs of assistance for local communities and the immediate restoration of normality.

## 3. Commitment of resources

## 5. Strengths and weaknesses in France

### 1. Very strong point: strategy

The strategic thrusts of civil safety policy appended to the 2004 law form a real 'mission statement', an instrument of strategic thinking.

This is the logical starting point for any risk management policy, yet France is the only country where such a document exists, signed by 11 ministers and appended to the law.

The document reflects the will to concert efforts at the highest level, at the level of national policy, and to do so as early in the process as possible, which means not waiting and then meeting only to align efforts to apply legislation but engaging in teamwork and collaboration between ministries, already where the preparation of regulatory texts is concerned.

For inter-ministerial work of this scale to be successful, broad consensus is certainly necessary, which will undeniably make it easier to act on the text once passed by Parliament, and gives the strongest guarantee of it being applied on the ground.

## 2. Point of interest: sustainable development is gaining ground

In the context of risk prevention, reference is made to sustainable development:

Article L. 110-1. of the Environment Code: *"I. Natural areas, resources and habitats, sites and landscapes, air quality, animal and plant species, and the biological diversity and balance to which they contribute are part of the common heritage of the nation. II. Their protection, enhancement, restoration, rehabilitation and management are of general interest and contribute to the objective of sustainable development which aims to satisfy the development needs and protect the health of current generations without compromising the ability of future generations to meet their own needs."*

Yet, amazingly, the notion of sustainable development is completely absent from any debate on risk management.

## 3. Strong point: anticipating instead of preparing for a crisis

Article 3 of Law no. 2004-811 on modernisation of civil safety stipulates that: *Civil safety policy must make it possible to take resolute action against risks by heightening anticipation of them, to reform the protection of communities and to mobilise all resources encouraging solidarity.*

This broadens the meaning of civil safety in the sense that, traditionally, its task was rather one of preparedness for crisis situations, whereas **today there is greater emphasis on developing capabilities to prevent such situations.**

## 4. Point leaving room for improvement: terminology that could lend to confusion

The law of 13 August 2004 states in Article 1 that civil safety has the purpose of: **preventing risks of any kind, informing** and alerting populations and protecting people, property and the environment against accidents, devastation and disasters through the preparation and implementation of measures and appropriate resources coming under the State, local and regional authorities and other public or private entities.

Article 2<sup>70</sup> states that *civil safety tasks are carried out mainly by the professional and volunteer firemen and ambulancemen of the fire and relief services as well as by staff of state departments and the servicemen in units bearing this responsibility on an ongoing basis.*

If we compare the description of the tasks and the list of services contributing to implementation of those tasks, we can see that it is not really a matter of preventing *risks*, but of preventing *crisis situations* and major risks, preventing the worst in a manner of speaking.

## 5. Strong point (all risks): preventing risks is everyone's business

Article 4 of Law no. 2004-811 on modernisation of civil safety stipulates that: *"Every individual shall contribute to civil safety through their behaviour. Depending on the situations with which they are confronted and within the scope of their possibilities, they shall do their utmost to warn the relief services and take the initial action required."*

<sup>70</sup> §2 of Article 2: Those contributing to civil safety shall also include army and national gendarmerie servicemen, national police staff and officials of the State, local and regional authorities and public or private establishments and bodies required to fulfil tasks relating to the protection of the public or the continuity of national life, members of associations with the stated purpose of civil safety and civil safety reservists.

This article emphasises the responsibility of every citizen with regard to both prevention and the intervention necessary in a crisis situation, stressing that risk management is not just the business of the State but a matter for everyone.

#### **6. Point of interest: involvement of representatives of civil society**

The Steering Council for the prevention of major natural risks also involves insurance companies, the Higher Council of Classified Installations involves members of environmental protection associations, and the National Council for civil safety and the *département* councils for civil safety involve private entities such as associations. These are just a few examples of the situation in France, where representatives of civil society are broadly and virtually systematically represented in consultation bodies.

#### **7. Point leaving room for improvement (all risks): no real multidisciplinary approach by theme**

Many existing and newly created bodies are multidisciplinary but remain linked to one aspect: prevention, planning or management of intervention. There is no real multidisciplinary approach by theme, bringing together, in the case of floods for example, those responsible for prevention, planning and crisis management respectively, together with those responsible for inspections and rehabilitation. The prefect is ultimately the only one to draw these strands together.

#### **8. Strong point - Seveso: a single authority and single legislation for classified installations**

A single authority is competent for the application of legislation on classified installations. In other countries there may be several legal entities – State, region, department, commune – acting simultaneously within the framework of the same policing authority. In France, only the State is competent for enforcing legislation on classified installations. It acts via the intermediary of the prefect, assisted by technical services.

European regulations draw a distinction between the monitoring and prevention of pollution, (the IPPC directive) and the prevention and control of major accidents (the Seveso Directive). In most European countries, we find the same distinction in managing pollution and accidents. In France, the two risks linked to industrial activities are integrated in a single piece of specific legislation covering classified installations, which is conducive to an integrated approach to industrial risk.

#### **9. Point leaving room for improvement: prevention plans do not bring together all the players concerned**

Unlike the Orsec plans or the emergency plans which bring together all the players concerned by crisis management in general for crises linked to a specific or localised risk, prevention plans are far more modest in scope. They deal mainly with the aspect of spatial planning or land use and therefore do not pool all the areas of competence concerned by risk prevention.

## 10. Point leaving room for improvement: plans limited to emergency situations

Cf. a document prepared by the Minister of the Interior: "Managing risks and preventing crises with relief plans"

*'The preparation of a relief plan brings into play, outside a crisis situation, the thinking potential of all the players concerned by such a crisis, ranging from the community involved to experts, including the operational services, the media etc. It is an opportunity for initiatives aimed at information or even training of the players with little everyday awareness of risk culture or needing management skills in a worsened situation. This effort to raise awareness among all the players is to be found in all the phases of the relief plan: preparation, implementation, revision, test and exercise, ... information campaign.'*

This covers all the phases of the virtuous circle of crisis management: prevention – forecasting/planning – alert – emergency – return to normality and repair – feedback. But, as in the other countries studied, the circle applies solely to crisis management and does not encompass all the aspects of risk management: emergency plans do not link up with risk prevention policies, and feedback benefits the managers of relief and not those who manage risk prevention.

## 11. Strong point (industrial risk): long-term vision

The law of 30 July 2003 introduces measures aimed at anticipating the end of life of industrial sites, throughout an installation's lifetime.

When operation is ceased, the state of the site must be such as to allow future use compatible with that of the previous period of operation. The operator is under obligation to notify the authorities of any changes in their technical or financial capabilities. If the prefect finds, during the installation's lifetime, that the operator's financial capabilities do not allow them to meet their obligations right up to the rehabilitation of the site upon ceasing activity, he may demand the constitution of financial guarantees. These new provisions are intended to put a stop to situations where sites are closed and the burden of site clean-up is left to the public authorities.

## 12. Strong point: BARPI

At national level, the minister responsible for the environment decided to set up, in 1992, within the Directorate of Prevention of Pollution and Risk (DPPR), a structure specifically tasked with feedback: the Bureau for Analysis of Industrial Risks and Pollution (BARPI).

BARPI is an integral part of the industrial environment department, which implements the ministry's policy on industrial risk prevention, and has three main tasks:

- centralising and analysing data on accidents, serious pollution and significant incidents occurring in classified installations and affecting environmental protection or linked to these installations' activities;
- forming a pole of expertise capable of assisting with the framing of general policy on prevention of technological risks but also of providing the technical support that may be necessary for inspecting companies in connection with the investigation of major accidents;
- passing on the lessons drawn from analysis of accidents in France or abroad.

The BARPI has established a scale for the swift, summary assessment of an accident's seriousness. The scale has 6 levels of seriousness, defined using a list of criteria taking the full range of consequences into account. This classification tool provides a means of comparing events of differing types.

The computerised database ARIA (Analysis, Research and Information on Accidents) centralises all the information on accidents, serious pollution and significant incidents

occurring in installations that may be harmful to the environment, safety or public health. These may relate to industrial, commercial, agricultural or any other kind of activity. Accidents occurring outside installations but linked to their activities are also processed, particularly involving the transportation of hazardous substances.

This database is accessible at the following internet address:

<http://aria.environnement.gouv.fr>.

Some 1,800 industrial accidents of varying seriousness were logged in France for the year 2000 in the ARIA database. These were mainly events resulting from the activities of factories, workshops, depots, building sites, quarries, livestock farms and the transportation of hazardous substances.

Those accidents, for which the record cannot be regarded as exhaustive, resulted in 50 deaths and over a thousand people injured. The gathering and passing on of lessons drawn from analysis of accidents is helping to improve risk prevention efforts.

### **13. Point of interest: a private initiative supplementing the initiatives of public bodies**

The Institute for industrial safety culture (French abbreviation ICSI) is an institute set up at the initiative of the private sector to promote a culture of safety in France. The ICSI was set up in Toulouse at the instigation of 4 companies (Total, Arcelor, Airbus and EDF), the National Scientific Research Centre, the National Polytechnic Institute of Toulouse, the Midi-Pyrénées regional council and the community of urban districts of greater Toulouse. It is defined as a "place of encounter, exchange and pooling of knowledge" and serves as a body of training, research and communication, seeking to mobilise outside expertise rather than develop its own resources. The initial budget is 1.5 million euros per annum.

### **14. Strong point: synthesis at the level of the *commune***

*Commune*-level safeguard plans (introduced by the law of 2004) are mandatory in *communes* which have a plan for the prevention of foreseeable natural risks or fall within the scope of a special intervention plan. **They must be compatible with relief organisation plans (Orsec plans).** They bring together all the documents falling within the *commune*'s competence which contribute to preventive information and protection of the local community. They determine immediate measures, in relation to the known risks, for safeguarding and protecting the public, establish the necessary organisation for passing on alerts and safety instructions, inventory the resources available and specify implementation of measures of assistance and support for the local population.

The plan may also designate **the deputy mayor or municipal councillor responsible for civil safety matters.**

These plans are a tool for linking emergency planning, Orsec plans and other measures such as preventive information, providing a means of logging any other public protection measure that is not necessarily covered by emergency plans, which focus on preparation of relief intervention.

Being able to designate a municipal official responsible for civil safety matters will certainly make for greater continuity in managing these issues outside a crisis situation.

### **15. Strong point (all risks): synthesis at the level of the *département***

It is at the level of the *département* that the prefect, with the aid of all the decentralised specialised services, produces a real synthesis of the situation. The prefect fulfils a weighty and all-embracing responsibility by drawing all the strands together regarding prevention,



management, rehabilitation and monitoring for all the different risks to be tackled by the *département*.

## 6. Conclusion for France

With recent literature in France increasingly proclaiming the merits of horizontal approaches, global or integrated safety measures and global or integrated management, the practical examples we see are mainly at the level of companies and the *département*.

At national level, it is above all thanks to teamwork between ministries to prepare legislation that real concerted efforts are being made.

Technical and political meetings provide a ground for joint reflection by all the ministerial departments on their respective contribution, based on their specific competence, and also on the objectives extending beyond their prerogatives.

Where the application of this legal framework is concerned, the approach taken by the ministerial departments is still essentially vertical. There are coordination or consultation bodies but their role is far more modest (cross-sectoral in composition but only covering certain specific aspects) and with far more limited and often purely consultative powers.

**A global approach to risk management has been a central focus of discussion and initiatives in recent times but is taking hold as the prime steering strategy and concern for future action. It is taking tangible form and existing structures are being adapted little by little.**

## 7. Legal references (selection of the most relevant texts)

- ✓ Law no. 2004-811 of 13 August 2004 on modernisation of civil safety, J.O. [Official Gazette] no. 190 of 17 August 2004, p. 14626
- ✓ Decree no. 2003-728 of 1 August 2003 establishing the Steering Council for the prevention of major natural risks, J.O. no. 179 of 5 August 2003, p. 13491<sup>71</sup>
- ✓ Law no. 2003-699 of 30 July on the prevention of technological and natural risks and the repair of damage, J.O. no. 175 of 31 July 2003, p. 13021
- ✓ Decree no. 2003-145 of 21 February 2003 establishing a Joint Ministerial committee for sustainable development, J.O. no. 45 of 22 February 2003,
- ✓ Decree no. 2002-895 of 15 May 2002 on the prerogatives of the Minister of Ecology and Sustainable development, J.O. no. 113 of 16 May 2002, p. 9253
- ✓ Decree no. 95-1115 of 17 October 1995 on the expropriation of property exposed to certain major natural risks presenting a grave threat to human lives, and on the Fund for the prevention of major natural risks, J.O. of 19 October 1995, p. 15256 onwards
- ✓ Decree no. 95-1089 of 5 October 1995 on plans for the prevention of foreseeable natural risks, J.O. of 11 October 1995, p. 14804 onwards
- ✓ Law no. 95-101 of 2 February 1995 on reinforcement of environmental protection, J.O. of 3 February 1995, p. 1840 onwards
- ✓ Order of 28 August 1992 approving model posters for publicising safety instructions, J.O. of 5 September 1992, p. 12223

<sup>71</sup> For implementing decrees for Law no. 2003-699 of 30 July 2003 see: [www.ecologie.gouv.fr/article.php3?id\\_article=2429](http://www.ecologie.gouv.fr/article.php3?id_article=2429)

- ✓ Decree no. 90-918 of 11 October 1990 on the exercise of the right to information on major risks, adopted pursuant to Article 21 of Law no. 87-686 of 22 July 1987, J.O. of 13 October 1990, pp. 12415-12416
- ✓ Decree no. 90-394 of 11 May 1990 on the national alert code, J.O. of 15 May 1990
- ✓ Law no. 82-600 of 13 July 1982 on compensation of victims of natural disasters, J.O. of 14 July 1982, pp. 2242 – 2243
- ✓ Law no. 76-663 of 19 July 1976 on classified installations, codified in Title 1 of Book V of the Environment Code

Seveso-specific regulations:

- ✓ Circular of 10 May 2000 on the prevention of major accidents involving hazardous substances or preparations present in certain categories of installations that are classified for the protection of the environment and subject to authorisation
- ✓ Order of 10 May 2000 on the prevention of major accidents involving hazardous substances or preparations present in certain categories of installations that are classified for the protection of the environment and subject to authorisation, J.O. of 20 June 2000
- ✓ Decree no. 2000-258 of 20 March 2000 amending the decree of 21 September 1977 adopted pursuant to Law no. 76-663 of 19 July 1976 on classified installations in respect of environmental protection – J.O. of 22 March 2000
- ✓ Decree no. 99-1120 of 28 December 1999 amending the decree of 20 May 1953 on the nomenclature of classified installations, J.O. no. 303 of 31 December 1999

Law codes:

- ✓ General Regional and Local Authorities Code, Book II - Title I - Chapter II Municipal police
- ✓ Environment Code, Book I - Title II Informing and participation of citizens , Book V Prevention of pollution, risks and nuisances
- ✓ Insurance Code, Part I - Book I - Title II – Chapter II Fire insurance and Chapter V Natural disasters insurance
- ✓ Urban Planning Code, Part I – Book I – Title II – Chapter I General provisions common to coherent local and regional planning strategies, local urban development plans and *commune* maps.

## Chapter 4: Major risk management in Russia: Risk prevention and crisis management

### 1. Introduction

#### ***Administrative organisation in Russia***

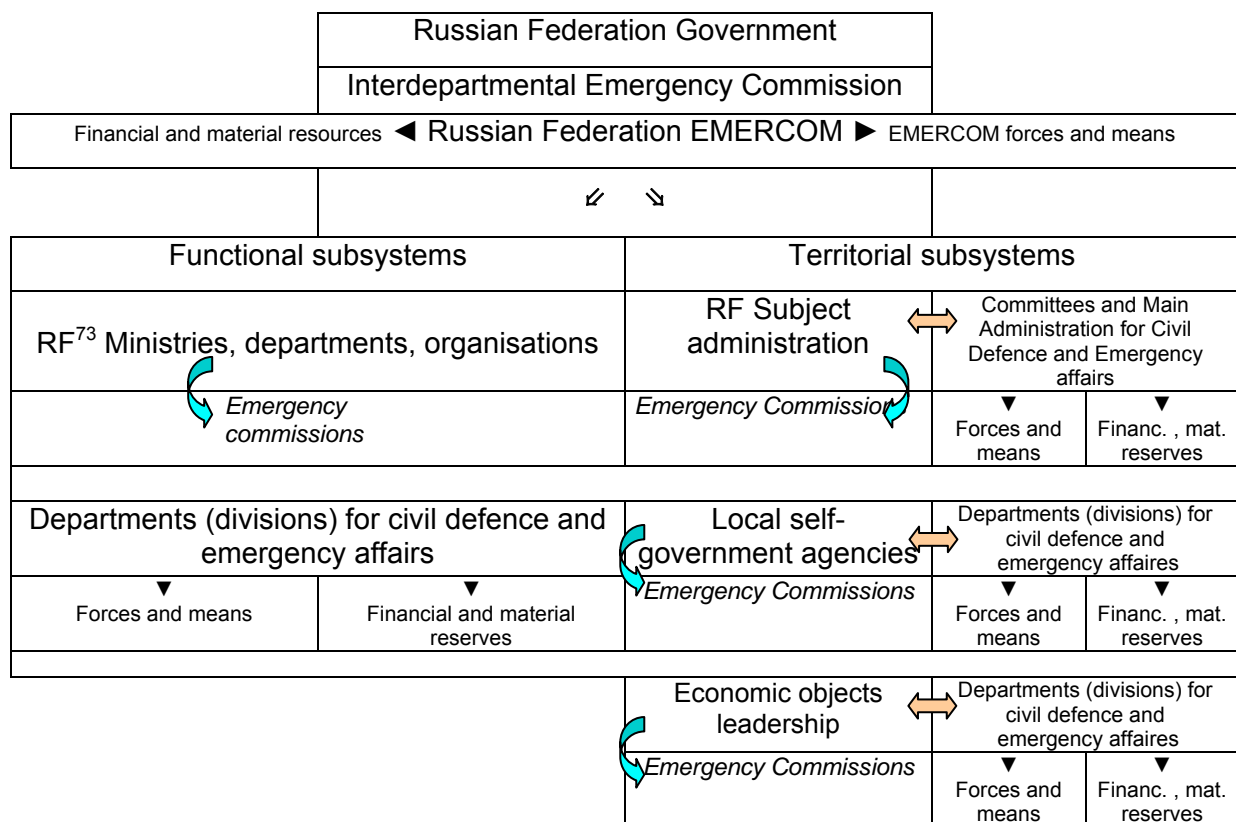
Since 1992, Russian territory has been split into 89 administrative subdivisions with widely differing status:

- 49 *oblasts* (provinces)
- 21 autonomous republics
- 6 *krais* (territories)
- 1 autonomous *oblast*
- 10 autonomous *okrugs* (districts)
- the cities of Moscow and St Petersburg, which have special status

The territory of these administrative units sometimes overlaps (the Yamalo-Nenets and Khanty-Mansiysk regions, for example, lie within the territory of Tyumen *oblast*).

Compliance with central government policy is sometimes hampered by the fact that certain regions regard themselves as sovereign or independent entities.

Within the Russian system of administration, powers and responsibilities are distributed along both functional and territorial lines<sup>72</sup>.



<sup>72</sup> Diagram taken from Lein A., Perevoschikov V., Segal M., Goldfarb B., Shatalov A. in "The fundamentals of a state regulation of activities in the field of industrial safety, protection of population and environment in Russia" – Russia, Moscow, Risk and Safety Institute, 1999

<sup>73</sup> RF: Russian Federation

The division of powers and responsibilities between federal government and the regions is set out both in the Constitution and in federal laws and demarcation agreements. Where environmental protection is concerned, responsibility is vested in federal government and the regions (Art. 9, §1 of the Law on Environmental Protection), but also in local authorities (municipalities) and ordinary citizens (who have responsibilities under Art. 10 and Art. 11, §3 of the same law).

### **Statistics**

In 1996 alone, over 1,000 major accidents occurred in Russia, killing 2,000 people and injuring a further 20,000. Damage to property is estimated at US\$1 billion (although independent experts believe the real figure is 10 times higher)<sup>74</sup>. Under the federal law on fire prevention, authorities are required to keep a statistical register.

### **Definitions of major risk/accident**

The relevant text here is RF Government Decree No. 1094 of 13 September 1996 on “**The classification of natural and technological emergencies**”, adopted pursuant to the Federal Law on Protection of the Population and Territories against Natural and Technological Emergencies.

According to this decree, **emergencies** are classed according to:

1. the number of people affected,
2. the extent of the damage to property,
3. and the surface area of the affected territory.

**Localised crisis:** up to 10 people affected or disruption to a community of up to 10 people, damage to property equivalent to up to 1,000 times the daily minimum wage and confined to an industrial site or project zone.

► **Response:** the organisation concerned.

**Local crisis:** between 10 and 50 people affected or disruption to a community of between 100 and 300 people, damage to property equivalent to between 1,000 and 5,000 times the daily minimum wage and confined to a particular municipality, town or region.

► **Response:** the local authorities.

**Territorial crisis:** between 50 and 500 people affected or disruption to a community of between 300 and 500 people, damage to property equivalent to between 5,000 and 500,000 times the daily minimum wage and confined to the territory of a subject of the Russian Federation.

► **Response:** authorities of the relevant RF subject.

**Regional crisis:** between 50 and 500 people affected or disruption to a community of up to 1,000 people, damage to property equivalent to between 500,000 and 5 million times the daily minimum wage and confined to the territory of two RF subjects.

► **Response:** joint effort by the federal authorities and the RF subject or subjects concerned.

**Federal crisis:** more than 500 people affected or disruption to a community of more than 1,000 people, damage to property equivalent to more than 5 million times the daily minimum wage and confined to the territory of more than two RF subjects.

► **Response:** joint effort by the federal authorities and the RF subject or subjects concerned.

**Border crisis:** emergencies which extend beyond Russia's borders.

<sup>74</sup> Source: The fundamentals of a state Regulation of activities in the field of industrial safety, protection of population and environment in Russia, Risk and Safety Institute

In Article 1 of the Federal Constitutional Law of 30 May 2001 on the **State of Emergency**, a state of emergency is defined as a special legal regime for any subject of the Russian Federation which allows restrictions to be imposed on the rights and freedoms of citizens and organisations and which entails additional obligations.

Article 3 stipulates that a state of emergency is to be introduced only in circumstances which pose a direct threat to the lives and safety of citizens, or to the constitutional system, and which call for emergency measures, such as natural, technological or ecological emergencies, including epidemics and epizootic diseases resulting from accidents, hazardous natural phenomena, catastrophes and other natural disasters liable to cause death or injury to persons or damage to the environment, considerable damage to property or disruption to the vital activities of the population and which call for urgent relief operations. A state of emergency is declared by decree of the President of the Russian Federation and submitted to the RF Federal Assembly for approval.

**Federal Law No. 7-FZ of 10 January 2002 on environmental protection** provides the following definitions:

**Environmental protection:** activities of Russian Federation government agencies, agencies of Russian regional governments, local government agencies, NGOs and other non-commercial associations, legal entities and private individuals which are designed to preserve and restore the natural environment, ensure the rational use and renewal of natural resources, **prevent economic or other activities from having a negative impact** on the environment and eliminating the consequences thereof (referred to as “nature conservation activities”);

**Negative impact on the environment:** the impact of an economic or other activity which results in an adverse change in the quality of the environment.

**Federal Law No. 69-FZ of 21 December 1994 on fire prevention** provides a series of definitions in the field of fire prevention and fire-fighting:

In Article 1, **fire prevention** is defined as the act of protecting persons, property, society and the state against fire. The **fire prevention requirements** are special social or technical conditions imposed by RF legislation, regulatory instruments or any authorised government agency. The **fire prevention regime** is made up of all the rules of conduct applicable to the population, the procedure governing the organisation of production and the maintenance of premises (territory) in order to prevent any breach of the fire prevention requirements and extinguish fires. **Emergency relief operations** are action taken by the fire service, including relief provided to members of the public, the protection of property and the administration of first aid to victims pending the arrival of medical staff.

The **fire prevention system** includes all legal, organisational, economic, social, scientific and technical resources the purpose of which is to combat fires.

**Federal Law No. 116-ФЗ of 21 July 1997 on the industrial safety of hazardous industrial facilities** provides the following definitions in the field of industrial safety:

**Industrial safety** in the context of hazardous industrial facilities means: protecting the vital interests of an individual or society against accidents at hazardous industrial sites and against the consequences thereof.

An **accident** is the destruction of structures or technical devices used at a hazardous industrial site, an uncontrolled explosion and/or the emission of hazardous substances.

An **incident** is a failure or fault in a technical device used at a hazardous industrial site, failure to comply with a technological process, violations of the provisions of the law in question, other federal laws or other regulatory instruments of the Russian Federation, or failure to comply with the regulatory technical documents specifying how work is to be organised at a hazardous industrial site.

**Federal Law No 68-Φ3 of 21 December 1994 on protection of the population and territories against natural and technological emergencies** provides the following definitions:

**Emergency:** conditions within a particular territory which are the result of a failure, dangerous natural phenomenon, spontaneous accident or other disaster which may cause or has caused human victims, damage to human health or to the natural environment, significant damage to property or livelihoods.

**Emergency prevention (warning)** is a series of preliminary measures aimed at minimising the occurrence of risks and protecting human health, reducing the scale of the damage to the natural environment and loss of property.

**Disaster relief** includes rescue and other urgent measures in the event of an emergency which are aimed at saving the lives or protecting the health of persons, reducing the scale of damage to the natural environment and damage to property, and containing the situation.

## 2. Relevant authorities at federal level

### FLOODING - Prevention

- **EMERCOM – Emergency Management Committee or the Federal Ministry for Civil Defence, Emergencies and the Elimination of the Consequences of Natural Disasters**  
**Tasks:** federal body set up specifically to manage and co-ordinate natural and technological disaster prevention, preparedness and management
- **Russian Federation Committee for Water Management**
- **Ministry of the Environment (Federal Department of Forestry)**
- **Ministry of Agriculture**
- **Others: Ministry of Education and the Federal State Committee for Higher Education<sup>75</sup>; Federal Administration for Social Welfare**

### FLOODING – Management

- **EMERCOM – Emergency Management Committee:** idem
- **Federal Ministry of Transport**  
(a specifically Russian arrangement related to the size of the territory and the problem of providing transport facilities)

### CHEMICAL HAZARDS - Prevention

- **EMERCOM – Emergency Management Committee:** idem
- **Federal Ministry for the Chemical Industry**
- **Federal Ministry of Construction**
- **Federal Ministry of Economic Affairs**

<sup>75</sup> Under Russian Federation Government Decree No. 43 "On the Federal Purpose-Oriented Programme "Creation and Promotion of the Russian Federation System for Prevention and Acting in Emergencies", 16 January 1995

- **Federal Department of Mining and Industrial Safety - Gosgortekhnadzor**  
Tasks: as the federal body responsible for issuing operating licences, Gosgortekhnadzor maintains, *inter alia*, a national register of hazardous industrial projects

### **CHEMICAL HAZARDS<sup>76</sup> - Management**

- **EMERCOM – Emergency Management Committee:** idem
- **Federal Ministry of Transport**

### **3. Co-ordinating authorities**

**The Federal Ministry for Civil Defence, Emergencies and the Elimination of the Consequences of Natural Disasters – EMERCOM of Russia<sup>77</sup>** is the main co-ordinating body for all matters relating to emergency prevention, preparedness, planning and response. Officially established by decree in 1994, EMERCOM actually dates from 27 December 1990 when the Russian Rescue Corps was created to provide a rapid, effective response in the event of natural and man-made disasters.

Since then, this Rescue Corps has continued its work with assistance from specialists, rescue workers and civil defence forces. It was transferred from the Ministry of Defence to EMERCOM in 1991.

The lessons learnt from the Chernobyl disaster in 1986 and the Spitak earthquake in Armenia in 1988 have highlighted the need for a systematic approach to disaster prevention, management and mitigation at government level.

As a federal ministry with executive powers, Emercom of Russia is now in a position to address these concerns.

Its tasks include:

- developing proposals and initiatives with regard to federal policy on major risk management (prevention, forecasting, preparedness, response);
- drafting and adopting, within the limits of its powers, statutory instruments which are binding on other federal departments, regional and local authorities, private enterprises, institutions and organisations;
- co-ordinating the activities of federal, regional and local agencies and administrations, private enterprises and scientific research facilities involved in prevention, forecasting, etc;
- running and further developing the Russian Disaster Management System<sup>78</sup>;
- directing operations to mitigate the impact of major disasters;
- preventing and dealing with the consequences of radiological disasters;
- organising a national monitoring system;
- organising international co-operation.
- etc.

### **Co-ordinating mechanism: agreement between EMERCOM and Gosgortekhnadzor**

In 1998, an agreement was signed between EMERCOM and the Federal Department of Mining and Industrial Safety concerning co-operation in the field of industrial safety,

<sup>76</sup> The term “chemical hazards” means hazards generated by the presence of hazardous substances, in quantities equal to or greater than those specified in Federal Law No. 116- Φ3 of 21 July 1997 “On industrial safety at hazardous industrial sites”.

<sup>77</sup> This ministry was officially established by Decree of the President of the Russian Federation of 10 January 1994

<sup>78</sup> Russian System for Disaster Management (RSDM)

emergency prevention and protection of the population and territories. The document includes procedures for undertaking joint action to prevent industrial accidents and any emergency situations arising therefrom. For example, the procedure concerning “safety declarations” for industrial projects and the Russian Federation list of hazardous industrial projects for which declarations must be filed were jointly approved by EMERCOM and the Director of Gosgortekhnadzor on 4 April 1996, under Order No. 222/59.

### Examples of interaction between Emercom and federal authorities:

Agency, ministry or department resp. for supervision	Preventing and dealing with accidents, catastrophes and natural disasters	Interaction (joint efforts) with EMERCOM
Gosgortekhnadzor (Russian industrial inspectorate)	Organising and carrying out monitoring of potentially hazardous industrial projects in the Russian Federation. Anticipating industrial accidents and disasters and developing measures to prevent them.	Supervising the preparation and implementation of plans to deal with accidents, protect enterprises and the population from industrial accidents and disasters. Drawing up (jointly approved) conclusions concerning high-risk industrial sites.
Russian Federation Committee for Water Management	Monitoring to ensure compliance with the operating requirements governing water management facilities and reservoirs intended for multiple use (irrespective of the department which they come under).	Annual evaluation of preparedness in cases where the water level is very high, evaluation of the arrangements for flood prevention work, protection measures and other facilities, irrespective of the department which they come under. Monitoring measures designed to protect projects, facilities and dwellings situated on flood plains.
Russian Federation Ministry of Construction	Providing regulatory documents to support engineering and technical measures for civil defence agencies when drawing up national economic plans.	Organising the preparation of federal standards for engineering and technical measures for the civil defence agencies and ensuring compliance with these measures. Assisting with scheduling, the development of design models for protection facilities, the preparation of instructions and manuals for facilities and projects in case of emergency.
Russian Federation Committee on Standardisation, Metrology and Certification	Providing regulatory and technical support for industrial design and manufacturing, in keeping with the safety and metrological requirements. Monitoring the efforts made.	Organising the preparation of standards and metrological regulations to deal with emergencies in wartime and peacetime.
Russian Federation Ministry of Internal Affairs: Fire Safety Inspectorate - Gospozhnadzor, Road Safety Inspectorate	Monitoring compliance with the fire safety requirements.  Organising measures to prevent and reduce the number of road accidents – monitoring road safety.	Devising measures and providing support for their implementation in order to prevent fires (involving toxic or explosive emissions which pose a threat to the environment) from developing into a full-scale disaster. Participation by EMERCOM in matters relating to the setting-up and running of fire services. Devising measures and providing support for the implementation of these measures in order to prevent disasters on public highways and assisting in the review of particularly serious road accidents.
Russian Federation Ministry of Public Health and the Medical Industry	Providing accident and emergency services.	Monitoring the functional aspects of the accident and emergency system and the supply of medical equipment and drugs in case of emergency.



### **Co-operation between inspectorates**

Co-operation between the various federal inspectorates in order to prevent emergencies and ensure preparedness in terms of agencies, forces and resources, is based around the following:

- b) implementing the co-ordinated planning policy and drawing up laws and regulations, scientific, technical and other government programmes to protect the population and territories in case of emergency;
- c) approving joint inspection plans for potentially hazardous sites and populated areas where an emergency is liable to occur;
- d) jointly drafting proposals for preventing and dealing with the consequences of emergencies, for higher administrative and executive authorities, to enable them to make decisions;
- e) co-ordinating the setting-up and organisation of emergency review committees;
- f) sharing experience in the field of inspection, information concerning emergency forecasting, expert conclusions, research findings and the results of analyses of emergency situations, etc.

## **4. Organisation of major risk management in Russia**

### ***A universal responsibility***

Russian regulatory texts on risk management all proceed from the notion that responsibility is to be shared not only among the relevant public authorities but also among industrial enterprises, associations and ordinary citizens.

The general principles are set out in the Law on Environmental Protection: general obligation on all federal, regional and local authorities and ordinary citizens to protect the environment, environmental monitoring, polluter-pays principle, application of norms, maximum permissible effects on humans and the environment, operating-licence requirement, impact assessment, obligation to comply with construction standards, etc.

The Law on Environmental Protection expressly requires everyone - public and private agencies, legal entities and private individuals - to participate in environmental protection and in resolving matters relating thereto (Art. 3). Article 11 §3 of this law specifically states that citizens must preserve the nature of the environment, treat nature and natural resources with care and consideration and comply with the relevant statutory obligations.

In the field of industrial safety, according to the relevant technical regulations, primary responsibility lies with the potentially hazardous enterprises concerned. The role of the federal inspection and supervisory agencies is to ensure harmonised arrangements to protect industry and the population at large.

In the field of civil defence, the federal law of 1994 on protection of the population spells out the responsibilities of federal and regional authorities (Chapter II) but also the duties of ordinary citizens: comply with the relevant legislation, observe everyday safety procedures, learn the basics of what to do in an emergency (in particular first aid), follow the rules of conduct in the event of an emergency and assist the relief effort.

### ***Complex legal framework***

Broadly speaking, the legal framework is created at federal level and supplemented by the authorities of RF subjects, in keeping with federal legislation. The Constitution and a number of federal laws specify how powers and responsibilities are to be distributed, yet uncertainty still reigns in many areas, especially risk management, with duplication in some areas, gaps in others, instances of federal financial aid failing to reach its intended target and the

abolition of state bodies by regional governments (seeking to break with the centralist tradition), thus bypassing the national networks that used to operate all over Russia.

In this complex environment, Emercom of Russia plays an extremely important role. Not only does it possess its own powers which allow it to act on the emergency forecasting, prevention, preparedness and response front and but it has always been held in high regard by government institutions and the public at large (the deployment of Emercom units is symbolically very important because of its capacity for effective action in the event of an emergency).

### ***Strategic planning***

The main instruments of any federal and/or regional policy designed to manage risks and protect the population are the special (federal or regional) programmes. These programmes are always multi-disciplinary in nature and seek to cover all aspects of a particular problem. The federal programme to reduce natural and technological risks and the impact thereof for the period up to 2005 is one such example. It is run jointly by Emercom, the RF Ministry of Industry, Science and Technologies, the RF Ministry of Natural Resources, the RF Ministry of Nuclear Energy, the Russian Academy of Sciences and a number of other bodies. The programme includes framing government policy, compiling an inventory of resources available at federal and regional level, devising measures to improve risk assessment, forecasting and monitoring, risk management measures, supervisory mechanisms, developing information, communication and warning systems, raising public awareness, etc. Alongside this federal programme, regional programmes have also been introduced in twenty-two subjects of the Russian Federation.

This comprehensive federal programme is also supplemented by specific federal programmes geared to particular risks, such as forest fires, disaster medicine in the case of epidemics or epizootic diseases, environmental management, etc. Similar specialised programmes can be found at regional level.

### **Economic criteria**

Russia attaches considerable importance to economic criteria. Cost-benefit analyses are routinely referred to when framing policy and/or drafting legal texts. Experience shows that preventing accidents and reducing the occurrence of risks is 10 to 15 times less expensive than dealing with the consequences of an accident that has already occurred<sup>79</sup>.

## **A. Organisation in the case of major chemical hazards**

The notion of Seveso risk introduced in EU countries by the so-called Seveso Directives, whereby installations where hazardous substances are present in certain quantities are subject to special rules, does not exist in Russia.

Russia does, however, have something similar, in the form of legislation on industrial safety at hazardous industrial sites. As with the Seveso directives, whether or not this legislation applies depends on the quantities of hazardous substances involved, as specified in the appendix to the law of 1997. The legislation is likewise designed ***both to prevent major accidents and to mitigate the impact thereof.***

Under this legislation, all hazardous industrial sites must be entered in a national register which is kept by the Federal Department of Mining and Industrial Safety, Gosgortekhnadzor. Gosgortekhnadzor has also been designated as the main body for industrial risk management (licensing, prevention and supervision) and can draw on a network of local services all over the Russian Federation.

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<sup>79</sup> Source: The fundamentals of a state Regulation of activities in the field of industrial safety, protection of population and environment in Russia, Risk and Safety Institute, A. Lein, V. Perevoschikov, M. Segal, B. Goldfarb, A. Shatalov, Moscow 1999

The other competent federal body is the RF Ministry of Economic Affairs.

All industrial activities are subject to licensing which requires:

- approval by an industrial safety expert;
- a safety declaration;
- an insurance policy for the duration of the activity in question.

The content of the safety declaration is specified in RF Government Resolution No. 675 of 1 July 1995. The purpose of this declaration is to require the operator to carry out a risk assessment and to notify the competent authorities accordingly. The results must be kept available for inspection by the government, public authorities and members of the public.

Other obligations include the duty to:

- provide competent staff;
- provide staff training in industrial safety;
- take measures in the event of an accident (including notably suspending production);
- participate in the technical investigation into the causes of an accident;
- take measures to deal with the consequences of an accident;
- inform the relevant authorities and the public;
- take measures to protect staff in the event of an accident;
- maintain a register with information on accidents and keep a record of the number of accidents and incidents
- ...

Drawing up emergency plans is not expressly mentioned in the list of obligations on the operator, nor is it specified to whom exactly all these obligations apply. The legislation mentions "hazardous industrial facilities" without making it clear whether it is referring to legal entities or technical operating units and which individuals are responsible (the operator, the head of the company, etc).

Art. 10 of the 1997 law on industrial safety spells out the action that must be taken in order to be prepared for an emergency, namely: planning and implementing measures to localise and deal with the consequences of an accident at a hazardous industrial facility, concluding contracts with the rescue services, training professional rescue teams and teams of volunteers recruited from amongst the staff, setting aside the necessary financial and material resources to deal with the consequences of an accident, training staff in what to do in the event of an accident and introducing monitoring, information, communication and support systems.

Consideration is given to spatial planning in the procedures for authorising construction, and the operating arrangements are set out in the operating licence which covers the entire life of the facility, from design to decommissioning.

Under the law on the certification of goods and services, equipment at hazardous sites must be certified in accordance with the industrial safety requirements.

The competent authorities for monitoring the implementation of this statutory framework are Gosgortekhnadzor, the Ministry of Economic Affairs and also Emercom, which deals with certain basic aspects under a co-operation agreement (see above, co-ordinating authorities), but also on the basis of specific powers when it comes to giving prior approval for construction projects.

## **B. Organisation of flood risk management**

The main causes of flooding in Russia are no different from in other countries: recent construction on flood plains, deforestation, changes in farming practices, new irrigation methods, urban development, etc. The absence of sustainable development, lack of funding for structural measures and poverty greatly exacerbate the vulnerability of communities confronted with this risk.

Since there is no one single cause, any strategy aimed at reducing the risk of flooding needs to cover a range of specialist areas.

At present in Russia, the flood risk prevention policy is part of the general institutional framework for reducing natural risks. It includes emergency preparedness, relief operations and rehabilitation, as well as prevention policy proper, which is aimed at reducing exposure to risk. While the first part (emergency preparedness and management) is amply dealt with (see below), the flood risk prevention policy is much less well defined.

The national prevention policy comprises a series of structural and other measures, such as hydro-engineering and town planning measures (in particular, the ban on new construction on flood plains), warning and public information systems, etc. The relevant ministerial departments are those which have competencies in the field of the environment, water, agriculture and forests.

Initiatives are taken at various levels of authority, but there is no single coherent policy.

Various factors are to blame for this: ambiguity in the statutory division of powers and responsibilities between federal government and regional and local authorities (the lack of clarity applies to both the vertical and horizontal division of powers), lack of co-ordination between the parties involved, the fact that there is no national strategy, etc.).

The foregoing was confirmed in a study completed in January 2005. This was effectively a comparative analysis on the subject of flooding, with the Russian input being provided by the Russian institute EcoPolicy<sup>80</sup>. One of the findings of the report was that most of the efforts and investments are being put into disaster preparedness and response rather than into prevention.

## **C. Joint organisation: planning and managing operations**

Russia has a unified national system for industrial safety monitoring, accident and disaster prevention and relief<sup>81</sup> (Art. 4 of the law of 1994 on protection of the population). This national system includes:

- drafting and implementing statutory and economic norms to protect the population and territories against emergencies;
- organising scientific, technical and other programmes designed to prevent emergencies;
- preparing the deployment of agencies, forces and resources designed for emergency prevention and response
- collecting, processing, exchanging and providing information for the public concerning emergencies;

<sup>80</sup> Institutional Capacity for Natural Disasters Risk Reduction: Comparative analysis of institutions, national policies and cooperative responses to floods in Asia – Russian Federation Case Study Report, Institutions, policies and measures towards the Lena river flood risk reduction, by Dr. V. Kotov and Dr. E. Nikitina, EcoPolicy, Moscow, Russia, January 2005

<sup>81</sup> Russian Federation Government Decree n° 43 "On the Federal Purpose-Oriented Program "Creation and Promotion of the Russian Federation System for Prevention and Action in Emergencies", 16 January 1995 and the Russian Federation Government Decree n° 1113 "On the Unified Statewide Emergency Prevention and Elimination System", of 5 November 1995 - Source: The fundamentals of a state Regulation of activities in the field of industrial safety, protection of population and environment in Russia, Risk and Safety Institute, A. Lein, V. Perevoschikov, M. Segal, B. Goldfarb, A. Shatalov, Moscow 1999

- preparing the population for action in the event of an emergency;
- estimating and reviewing the social and economic consequences of emergencies;
- setting aside the necessary financial and material resources to deal with emergencies;
- developing government expertise with regard to monitoring the population and protecting the territory from emergencies;
- post-emergency clean-up;
- developing welfare measures for the population in the event of an emergency and engaging in humanitarian action;
- determining the rights and obligations relating to protection of the population in the event of an emergency and the rights and duties of the persons directly involved in emergencies.

This unified national system is important in terms of the change of direction that has occurred in Russia since the 1990s. With the new administrative structure, and in view of the size of the country (which spans two continents), the wide range of risks to which Russia is exposed, the enormity of the damage, etc. the focus has shifted from military defence to civil defence, and a more holistic, integrated approach to risk management. Russian Government Decree No. 1113 of 5 November 1995 on “the unified national system for prevention and action in emergencies” is the result of this process.

One important feature of the integrated approach to risk management is the fact that national policy is based on an inventory of the risks to which Russia is exposed (risk analysis), an **inventory of territorial vulnerability**, as it were.

The second major feature is the whole risk monitoring and forecasting network, with particular attention being given to natural hazards. This functioning of this national network is currently hampered by the above-mentioned factors connected with administrative reform, in particular the fact that in some autonomous republics, centres have been shut down, causing disruptions in the running of other centres in the network.

As the main player, Emercom of Russia is the lynchpin in this unified system, having the power to frame government policy, deal with the operational aspects of risk management and co-ordinate government action in the event of a crisis.

Emercom has 6 regional centres with subdivisions in all 89 subjects of the Russian Federation.

Emercom also has a number of institutions, such as:

- the Emergency Management Centre;
- the Russian Centre for Emergency Monitoring and Forecasting Emergencies;
- the Rescue Service;
- the Mobile Air Rescue Unit;
- Civil Defence troops;
- the Centre for Emergency Operations in case of “extreme” risk, “Leader”;
- the state-owned unitary airline;
- the Russian national corps for humanitarian action in the event of an emergency;
- the Training Centre for Rescue Workers;
- the Civil Defence Academy;
- the Russian Research Institute on Civil Defence and Emergencies.

Emercom is chiefly concerned with emergency preparedness and co-ordinating emergency response. The legal framework for these activities is provided by Federal Law No. 68-Φ3 of 21 December 1994 on protection of the population and territories against natural and technological emergencies.

This law also spells out the powers and responsibilities of regional authorities as regards protecting the population: these powers and responsibilities are in addition to any action decided by federal government. The precise breakdown of powers is not sufficiently clear, however, which causes tremendous problems for those trying to manage and co-ordinate action on the ground.

Emergency planning as a concept does not feature among the statutory requirements, namely “the obligation to plan and implement all proper measures to prevent disasters and to organise relief in the event of a disaster”.

The report on the flooding of the Lena river in 2001<sup>82</sup> provides an example of what these measures include:

1. warning system to alert local and municipal authorities and the public
2. assess the situation and forecast future needs
3. impose law and order controls and carry out an assessment of the affected territory
4. victim identification and rescue
5. provide first aid pending the arrival of specialist teams
6. transport victims to hospital
7. evacuate local residents
8. clear the site afterwards
9. deal with any obstructions in the water course
10. build new dykes or take other measures
11. identify and bury the dead
12. take measure to protect health and prevent epidemics
13. protect livestock
14. inform and consult the affected population
15. humanitarian public assistance

The authors of the study found that their conclusions about this particular disaster applied to Russia as a whole, with an over-emphasis on emergency forecasting, preparedness and management and no joint efforts in terms of “primary prevention”, ie reducing the population’s exposure to risk.

## **5. What are the strong and weak points of Russia’s system?**

### **1. Strong point (all risks): strategic planning**

The federal programmes which cover prevention, preparedness, management, monitoring, information and education, etc. and the existence of similar, complementary programmes at regional level are powerful instruments of risk management policy, not least because they include both a strategic vision and an implementation plan, setting out the precise steps to be taken.

There is a general federal programme as well as programmes for specific risks. These programmes are, by definition, multi-disciplinary. They either concern the overall strategy for all types of risk, or deal with one particular risk. In both instances, they bring together all the competent authorities to jointly develop a risk management strategy and decide what action is needed to implement it.

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<sup>82</sup> Institutional Capacity for Natural Disasters Risk Reduction: Comparative analysis of institutions, national policies and cooperative responses to floods in Asia

## **2. Strong point (all risks): the inventory of risks**

There is little point in trying to devise a strategy if one has no information about the various risks involved. One of Emercom's specific tasks, therefore, is to create a database on territorial vulnerability. These data are supplemented by the national register of potentially hazardous industrial sites which is kept by the federal inspectorate, Gosgortekhnadzor. Registration with Gosgortekhnadzor is compulsory for all potentially hazardous industries.

## **3. Strong point (industrial risk): integrated approach to risk management**

Federal Law No. 116 - Φ3 on industrial safety is designed firstly to prevent emergencies and secondly to pave the way for post-emergency clean-up. This requires firms to give due consideration to risk prevention and crisis management.

**Average point:** in contrast to many other countries, the technical regulations setting out the statutory obligations on the operator as regards risk management do not require the operator to take all proper measures but rather provide a list of minimum requirements, with the not surprising result that no-one feels inclined to do more than just the basics.

## **4. Average point (emergency management): ambiguous rules and regulations**

Emercom has explicit powers in the field of emergency prevention, preparedness, management and rehabilitation. Unlike emergency preparedness and management where its tasks are clearly defined, the notion of prevention, as mentioned in existing legislation, is rather confusing. A strict reading of the rules suggests that it is not risk prevention that is being referred to, but rather disaster prevention. In disaster prevention, however, the emphasis is on preparedness, without any real thought being given to the kind of measures that could prevent a disaster from occurring in the first place.

Generally speaking<sup>83</sup>, many regulatory texts in Russia (regardless of the subject-matter) grant a wide measure of discretion to the authorities concerned. The thinking apparently is that if a statutory obligation is couched in sufficiently vague terms, authorities can decide for themselves whether to exercise this responsibility, and if so, how. In reality, however, many authorities simply fail to take the obligations seriously, as though they were somehow exonerated from performing tasks that are not clearly defined.

## **5. Average point: division of powers and responsibilities between federal and regional authorities**

Under the Constitution, federal government has regulatory powers as regards protecting the population, whereas the regions merely have "competence" in this area, ie something more akin to power to enforce decisions.

In the absence of a more detailed demarcation, too many matters at present are covered neither by federal government nor by regional government.

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<sup>83</sup> See: N. Kasantchev in: The analysis of the legal framework concerning government responses to emergency situations, AETS – Apave-Sud, 2003, p.111

## **6. Strong point (all risks): co-operation agreement**

An agreement between EMERCOM and the Federal Department of Mining and Industrial Safety, Gosgortekhnadzor, sets out the practical arrangements for co-operation in the field of industrial safety, emergency prevention and protection of the population and territories. This document includes procedures for undertaking co-ordinated action to prevent industrial accidents and any emergency situations arising therefrom.

## **7. Strong point (all risks): co-operation mechanisms**

The fact that Emercom does not have specific powers in the field of risk prevention is, in practice, mitigated by co-operation arrangements between Emercom and the federal authorities which have “vertical” responsibility for specific risks. By way of example, in the areas that concern us here, such arrangements have been made:

- between Emercom and the Russian Federation Committee for Water Management
- between Emercom and the Russian Federation Ministry of Construction
- between Emercom and the Russian Federation Committee on Standardisation, Metrology and Certification
- between Emercom and the Ministry of Internal Affairs (Fire Inspectorate and Road Safety Inspectorate)
- between Emercom and the Ministry for Public Health and the Medical Industry.

## **8. Strong point: joint inspections**

In keeping with point 7, co-ordination and joint action on law enforcement have been instituted, enabling the federal inspectorates to work together.

## **9. Strong point: centralised approach**

Prior to 1990, Russia had a highly centralised administrative system, which in the case of risk management, encouraged vertical action (eg, the existence of state committees with vertical responsibilities) or networking (eg the existence of networks of hydro-metrology centres across Russia).

The series of reforms introduced since 1990 indicate a tendency to replace these old-style structures. The challenge now will be to preserve and adapt these arrangements, which worked well in the past, so as to incorporate them into the new administrative set-up.

## **10. Average point (all risks): safety – a universal responsibility**

Russian legislation attaches great importance to the sharing of responsibility among all members of society. Both the legislation on emergency management and all of the more specific legislation (on environmental protection, industrial safety, etc.) expressly refer not only to citizens' rights but also to their duties: everyone, whether as a private individual, member of an association, company employee, etc. is expected to contribute to safety on a daily basis. The law also systematically calls for public information and awareness-raising, and training for members of the active population.



## 6. Conclusion in respect of Russia

The current set-up in Russia as regards risk management indicates a firm commitment to pursuing an integrated approach: horizontal and vertical national planning, agreements and a range of co-operation procedures, extensive powers vested in Emercom, etc,

Unfortunately, this political will is only partly reflected in the legislation, which is often too vaguely worded to ensure a clear division of responsibilities, making it difficult to organise effective risk management on the ground.

## 7. Legal references (selection of the most relevant texts)

- ✓ Federal Law No. 7-FZ of 10 January 2002 on environmental protection (adopted by the Duma on 20 December 2001)
- ✓ Federal Constitutional Law No. 3-FKZ of 30 May 2001 on the state of emergency (adopted by the Duma on 26 April 2001)
- ✓ Federal Law of 27 December 2000 on technical regulations
- ✓ Federal Law of 1999 on the status of the Russian Federation Ministry for Civil Defence, Emergencies and the Elimination of the Consequences of Natural Disasters
- ✓ Federal Law of 1998 on Civil Defence
- ✓ Federal Law No. 116-Φ3 of 21 July 1997 "On the industrial safety of hazardous industrial facilities", adopted by the Duma on 20 June 1997
- ✓ Russian Federation Government Decree No. 334 of 24 March 1997 on "the procedure for collecting and exchanging information in the Russian Federation concerning protection of the population and territories against natural and technological emergencies".
- ✓ Russian Federation Government Decree No. 1094 of 13 September 1996 on "The classification of natural and technological emergencies"
- ✓ Russian Federation Government Decree No. 1113 of 5 November 1995 on "the unified national system for prevention and action in emergencies"
- ✓ Russian Federation Government Decree No. 43 of 16 January 1995 on "the federal programme "Creation and promotion of the Russian Federation system for prevention and action in emergencies"
- ✓ Federal law of 1995 on the emergency and rescue services
- ✓ Law establishing the Russian Federation Water Code of 1995
- ✓ Federal Law No. 68-Φ3 of 21 December 1994 on protection of the population and territories against natural and technological emergencies (adopted by the Duma on 11 November 1994)
- ✓ Federal Law No. 69-Φ3 of 21 December 1994 on fire safety
- ✓ Decree of the President of the Russian Federation of 10 January 1994 establishing Emercom

## **Chapter 5: Major risk management in Bulgaria:** **Risk prevention and crisis management**

Under Art. 61 of the Bulgarian Constitution, citizens are required to assist the government and the municipality in the event of a natural or man-made disaster.

### **1. Introduction**

#### ***Administrative organisation***

Administratively speaking, Bulgaria is divided into 28 territorial units called regions. Each region is headed by a governor who is appointed by central government and who exercises co-ordinating powers over the municipalities in his region. He represents central government and can draw on a multitude of local departments in order to accomplish the main policy objectives.

The municipalities and towns (262 in total) are run by mayors, who are directly elected by citizens.

The system of national administration was radically overhauled in 1998 by the Administration Act. Bulgaria still has a large number of bodies with widely differing legal status. Among those of interest to us here in the context of major risk management are:

- the State Agency: comes under the direct authority of the Council of Ministers and is responsible for any matters not assigned to a ministerial department;
- State Committee: collective body forming an integral part of the Council of Ministers or attached to a Ministry, with very specific statutory powers and responsibilities;
- Executive Agency: an authority with the power to perform administrative functions, and which provides support for ministers in carrying out their tasks.

**Statistics:** in 2000, 20,243 disasters and accidents were recorded, resulting in 1,221 deaths and 9,283 injuries<sup>84</sup>.

#### **Definitions of major risk/accident**

Leaving aside the notion of prevention, Art. 2 of the **Environmental Protection Act** states that **reducing risks** to human health and the environment (as well as damage and lost profit) is to be the basis for determining environmental policy.

In its final provisions, the same law defines **environmental protection** as an activity the purpose of which is to prevent degradation of the environment through restoration, protection and improvement and which includes gathering information, monitoring conditions and assessing the environmental impact of planned activities.

Appendix 1 to the **rules on prevention and mitigation of the consequences of major accidents involving hazardous substances** defines the following concepts:

**Major accident** means any accident involving dangerous chemicals, as listed in Appendix No. 3 to the Environmental Protection Act and causing death or injury inside or outside the

<sup>84</sup> Source: Analysis of the legislation in the area of risk prevention in the Republic of Bulgaria, January 2002, European Center for Risk Prevention Training at School Level (CSLT), Sofia, Bulgaria

establishment or installation, damage to or pollution of certain parts of the environment or causing considerable damage to the property and engineering infrastructure of the area surrounding the establishment or installation, in accordance with the criteria listed in Appendix No. 1.

**Danger of major accident** implies the presence of hazardous substances, as referred to in Appendix 3 to the Environmental Protection Act, or an act or event liable to cause damage to human health and/or the environment.

**Risk** means the probability of a specific threat to human life/health or the environment occurring in a particular period or in particular circumstances.

According to the **legislation on the organisational and operational aspects of preventing and mitigating the consequences of disasters and accidents**, **prevention** means conducting activities to prevent and reduce the harmful effects of disasters and accidents (Art. 2).

Art. 19.2 calls for the drawing up of **(contingency) plans** for carrying out relief and emergency rehabilitation activities in the event of disasters and accidents but does not specify what these plans should cover.

In the **rules on major accidents involving hazardous substances**, specific reference is made to **internal contingency plans** (obligation on the operator) and **external contingency plans** (obligation on the Standing Committee) but again, it is not specified what these plans should cover.

**Civil protection** is defined as the full range of humanitarian, social, organisational, economic and scientific activities for preventing and reducing damage or damaging consequences in the event of disasters and accidents.

## 2. Authorities competent at national level

### FLOODS – Prevention

- **Ministry of the Environment and Water**

This ministry has general competence in the environmental protection field and is responsible for preventing and managing the risk of flooding.

- Directorate for Water**

The Directorate for Water is in charge of day-to-day water management, drafting legislation and national programmes for the protection and implementation of infrastructure and mapping projects, etc.

- Directorate for Basins**

- Regional Inspectorates for the Environment and Water**

These are local branches of the Ministry of the Environment and Water. As well as monitoring and providing information (to the media, the general public, etc), they are responsible for drawing up water management plans, analysing information, building protection facilities, etc.

- **Executive Agency for the Environment**

This agency manages the national environmental monitoring system and publishes an annual bulletin on the state of the environment.

- **Ministry of Science and Education**

- **Other relevant ministries: Ministry of Agriculture and Forestry, Ministry of Regional Development and Public Works**

## **FLOODS - Management:**

- **Council of Ministers**

The Council of Minister has general competence in this area (cf. Art. 4 of the legislation on the organisational and operational aspects of preventing and mitigating the consequences of disasters and accidents)

- **Ministry of the Interior:**

This ministry is in charge of the fire service and the police.

- **Civil Protection Agency:**

This agency is in charge of the civil protection units.

- **Ministry of Defence**

The Ministry of Defence operates through the specialised task forces of the Bulgarian army, in particular the joint emergency response teams, which have both military and medical personnel

- **Ministry of Public Health**

This ministry is in charge of the emergency medical centres and teams specialising in disaster relief

- **Others: Ministry of Transport and Communications, Ministry of Economic Affairs**

## **CHEMICAL RISKS<sup>85</sup> – Prevention**

- **Council of Ministers**

The Council of Ministers determines the general policy as regards the production, sale and use of hazardous substances in order to protect human life and health and also the environment.

- **Ministry of the Environment and Water**

This ministry has general competence in the environmental protection field and is responsible for prevention policy in matters concerning hazardous products. It draws up environmental programmes, authorises use, registers and issues certificates for new hazardous substances

- **Ministry of Health**

The Ministry of Health has general competence in the field of health protection, and more specifically as regards the effects of hazardous products on humans in general and workers in particular.

- **Ministry of Labour and Social Policy**

The Ministry of Labour and Social Policy has general competence in the field of health and safety at work

- **Ministry of Science and Education**

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<sup>85</sup> By chemical risks we mean the risks engendered by the presence of hazardous substances, in quantities equal to or greater than those indicated in Appendix 3 (low-risk dangerous installation) and Appendix 2 (high-risk dangerous installation) to the Environmental Protection Act and the specific arrangements for which are set out in a 1998 regulation.

## CHEMICAL RISKS - Management

- **Council of Ministers**

The Council of Ministers has general competence in this area (cf. Art. 4 of the legislation on the organisational and operational aspects of preventing and mitigating the consequences of disasters and accidents)

- **Ministry of the Interior:**

This ministry is in charge of the fire service and the police.

- **Civil Protection Agency:**

This agency is in charge of the civil protection units.

- **Ministry of Defence**

The Ministry of Defence operates through the specialised task forces of the Bulgarian army, in particular the joint emergency response teams, which have both military and medical personnel

- **Ministry of Public Health:**

This ministry is in charge of the emergency medical centres and teams specialising in disaster relief

- **Others: Ministry of Transport and Communications, Ministry of Economic Affairs**

## 3. Co-ordinating authorities

### The State Agency for Civil Protection: (mainly) co-ordination of crisis management activities<sup>86</sup>

This agency is one of the main players in the national security system which encompasses (political) governmental, managerial, economic, scientific and social activities designed to protect the population and the national economy from disasters and accidents.

The agency's tasks are as follows:

- develop legislation to protect the population and the national economy;
- oversee the setting-up of, and the recruitment and training of staff for, divisions and command units, ensure that they are ready to provide assistance and protection;
- supervise the development of plans to protect the population and the national economy;
- organise public protection: organise and provide training for members of the public in protection and assistance in the event of disasters and accidents;
- ensure co-operation with the armed forces during relief operations;
- prevent and reduce (mitigate) the consequences of emergencies;
- ensure that proper use is made of international experience and that the principles and norms of international humanitarian law are applied;
- make arrangements for informing the public and government authorities in the event of an emergency;
- organise the activities of the Council of Ministers Standing Committee on Protection of the Population in the event of Disasters and Accidents.

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<sup>86</sup> Council of Ministers Decision No. 53 of 2 March 2001, transforming the Civil Protection Service of the Ministry of Defence into the State Agency for Civil Protection, attached to the Council of Ministers.

This committee co-ordinates and manages emergency and relief activities between ministries, departments and the regional authorities. The agency acts as secretariat for the Standing Committee at national level.

### **The Standing Committee on Protection of the Population in the event of Disasters and Accidents (SCPPCDA)<sup>87</sup>**

In Bulgaria, a major co-ordinating role is played by the Standing Committees which operate at national as well as regional and local level, and whose members are drawn from a range of sectors.

There are two main types of Standing Committee:

- ***“interministerial”*** committees:

There is a national Standing Committee which encompasses all the ministers and deputy ministers. In addition to this, there are the regional Standing Committees, chaired by the prefects, and the municipal Standing Committees, chaired by the mayors.

By way of example, the Standing Committee of the city of Sofia is made up of the deputy mayors, all the heads of the city’s main departments (transport, public works, construction, health, education, etc), the heads of the police, fire service, army, etc. Experts may also be invited to take part. The permanent secretary is the head of Civil Protection who is appointed by the Civil Protection Agency and does not come under the authority of the mayor.

- ***“intraministerial”*** or functional committees:

There are also Standing Committees within each ministry, decentralised department, public and private entity. These committees bring together all the heads of department and are competent in the field of prevention (preparation) and assistance in the event of an emergency.

#### ***Competencies and functioning:***

Generally speaking, the Committees meet two or three times a year and whenever an emergency occurs.

They are competent in the field of prevention and management, but the term prevention actually refers here to preventive measures for preparing a response in the event of an emergency and does not cover risk prevention policy.

The secretary of the Committee (the civil protection officer) draws up an annual action plan, which the Committee approves. The Committee’s decisions are binding on its members and the respective administrations (Art. 6 of the 1998 Decision).

The members of the Committee ensure co-ordination between the Committee and the ministries and departments they represent.

The Committee also meets after a crisis to debrief participants on the conduct and management of the operations and makes recommendations.

The National Committee also manages the National Disaster Fund which is used to finance emergency assistance and post-crisis clean-up operations. The municipalities normally set aside part of their budget for crisis management but they can also apply to the National Fund for aid, within 30 days after a crisis occurs.

The Committees approve the contingency plans drawn up by the civil protection officers to mitigate the consequences of emergencies.

### **The National Centre for Crisis Management**

This centre may be regarded as the operational arm of the National Standing Committee and is responsible for:

<sup>87</sup> Council of Ministers Decision No. 18 of 23 January 1998 on the rules governing the organisational aspects of preventing and mitigating the consequences of natural and technological disasters.

- gathering, processing, analysing and filing information about emergencies and notifying the government authorities;
- liaising between government agencies and regional institutions during the clean-up phase.

#### 4. Organisation of major risk management in Bulgaria

##### ***Everyday safety: a universal concern.***

The idea that all citizens should contribute to security is actually enshrined in the Bulgarian constitution.

Educating the public about risk is also, however, the subject of joint efforts between the Ministry of Education and Science, the Ministry of the Interior, the Bulgarian Red Cross, the Ministry of Health and the Civil Protection Agency. The public receives instruction through the school education system, the media and Civil Protection Training Centres. The compulsory nature of this education is confirmed by the Public Education Act.

In practical terms, school heads organise risk education modules, drawing on staff from the local directorates for civil protection, the National Fire Service, the traffic police and officials from the Ministry of Health and the Red Cross.

The education provided has both a theoretical and a practical component.

##### **A. Organisation of major chemical risk management**

Bulgaria has developed a body of legislation modelled on European directives. The general framework is provided by the Environmental Protection Act.

Details of the specific rules applicable to dangerous installations are given in the 1998 regulations on the conditions and procedure for obtaining permission to build and operate new establishments or installations and on the operation of existing establishments and installations. These introduce a system designed to prevent major accidents involving hazardous substances or to mitigate the consequences thereof.

Bulgaria thus has roughly the same philosophy and the same statutory requirements as European Union countries.

As in the European Union, this legislation is **aimed both at preventing major accidents and at minimising their impact on humans and the environment**, something that will obviously require co-operation between the various authorities in Bulgaria which have powers and responsibilities in this area.

Primary responsible for preventing accidents involving hazardous substances and mitigating the consequences lies with the operator/employer.

Employers are required to:

- organise their activities in such a way that the danger is eliminated, to make arrangements for administering first aid, evacuating workers and contacting the civil protection and fire services;
- analyse the risks involved in their activities, assess the consequences and devise technical and organisational protection measures;
- draw up contingency plans;
- organise rescue teams (and set up permanent departments if necessary);
- provide individual and collective protection facilities and training for workers.
- ...

All activities are subject to authorisation issued by the Ministry of the Environment and Water, as well as planning permission, which is granted by the Ministry of Regional Development and Town Planning.

Planning applications must be sent to the Ministry of the Environment and Water.

Low-risk establishments and installations<sup>88</sup> are required to enclose the following documentation with their application:

- an assessment of the major accident risks;
- a report on their major accident prevention policy.

High-risk establishments or installations<sup>89</sup> must enclose the following documents:

- an assessment of the major accident risks;
- a safety report;
- an in-house contingency plan.

Before deciding whether to grant the application, the Ministry of the Environment and Water consults:

- the head of the Civil Protection Agency;
- the Minister of the Interior;
- the Director of the National Fire and Emergency Security Service;
- the Minister of Health;
- the head of the State Agency for Standardisation and Metrology;
- the district governors
- and the local authorities in the place where the establishment or installation is sited.

These authorities have two months within which to give their opinion.

**Thanks to this consultation process, all the competent authorities concerned with one or other aspect of preventing or mitigating the consequences of a major accident are involved in the single procedure for authorising activities which are potentially dangerous because of the presence of hazardous substances.**

In the event of a major accident, the operator must immediately notify the Municipal Standing Committee and the regional branches of the National Fire and Emergency Security Service. Operators must also supply the following information to the Standing Committee:

- the circumstances of the accident ;
- the hazardous substances that caused the accident;
- the necessary data for assessing the impact on humans and the environment;
- a forecast of how the accident is likely to develop and an assessment of the consequences;
- the steps taken by the operator in the immediate aftermath;
- the proposed measures to prevent a recurrence;
- the proposed measures to mitigate the consequences of the accident.

Cf. Art. 20 of these regulations: the Municipal Standing Committee, after consulting the local community, draws up an external contingency plan based on the information provided by the operator. These contingency plans contain measures to prevent and mitigate major accidents and are designed to protect human lives and health, property and the environment.

These last two aspects (obligation on the operator to report the incident and the obligation to draw up a contingency plan) clearly show **the important role assigned to the Standing Committees**. Later (under C.) we will take a closer look at the powers and responsibilities of these committees.

## **B. Organisation of flood risk management**

<sup>88</sup> The thresholds are specified in Appendix 3 to the Environmental Protection Act.

<sup>89</sup> The thresholds are specified in Appendix 2 to the Environmental Protection Act.



Responsibility for flood prevention lies with the Ministry of the Environment and Water. In event of floods, the heads of the regional inspectorates report daily to the Minister of the Environment.

A National Policy Plan for the environment is drawn up which comprises a general framework and guidelines for the action to be taken. This Plan is updated and translated into annual plans drawn up by the ministries, departments, agencies and other bodies concerned.

The Environmental Protection Act expressly states that the Minister of the Environment has a duty to develop his strategy in consultation with the relevant ministers (Art. 24, §1, 1°). Before taking a decision, he must consult the Ministers of Public Health, Agricultural Development, Spatial Planning, Regional Development, Housing, Construction and other national bodies (Art.24, §1, 7°).

### **C. Organisation of emergency planning and relief**

The general policy on civil protection is determined by the Council of Ministers. Decree No. 265/09.02 of 1978 refers to a unified system of civil defence, including any activity in peacetime or wartime to protect the population and national economy against armed attacks as well as natural and technological accidents.

Responsibility for the day-to-day management of civil protection falls to the **State Agency for Civil Protection**.

Any orders or instructions issued by the head of this Agency are binding on the heads of departments to whom they are addressed. Such persons are responsible for managing whichever aspects of civil protection fall within their remit, whether they be senior ministry officials, heads of public or private bodies, organisations or even private individuals.<sup>90</sup>

At regional level, there are Directorates of Civil Protection in the regional administrations and specialists in civil protection in the municipal administrations. They assist the governor or mayor in the performance of his tasks relating to the preparation, organisation, execution and monitoring of measures to protect the population and the national economy in the event of disasters and accidents.

All these activities take place under the general supervision of the **Standing Committee on Protection of the Population in the event of Disasters and Accidents (SCPPCDA)** which reports directly to the Council of Ministers.

The Committee is chaired by a minister without portfolio and its members are senior officials from the relevant ministries and agencies. The deputy chair is the head of the Civil Protection Agency.

The Committee is assisted by a staff of experts.

Standing committees are also set up in ministries, agencies, regional and local administrations, and even in companies and commercial establishments. Like the national Standing Committee, these committees are multi-disciplinary and bring together all the relevant officials from the ministry, agency or enterprise in question.

The SCPPCDA Committee is assisted by a Scientific Council and a number of boards of experts: nuclear safety, radiation protection, chemical and biological protection, medical insurance, seismic risks, meteorological and hydrological aspects of natural disasters, etc.

In keeping with Decision N SB-1/04.04.1995 of the SCPPCDA, a National Plan for organising relief and emergency rehabilitation has been introduced to provide rapid assistance, assess

<sup>90</sup> Art. 7 of Decree No. 265/09.02 1978 on Civil Defence. Any orders or instructions issued by the Head of Civil Defence with regard to civil defence shall be binding on the officials of ministries and other institutions, people's councils, organisations and citizens.

the nature and consequences of the most common disasters and direct and successfully carry out relief and rehabilitation operations in the affected areas.

The Plan specifies the responsibilities and obligations of the ministries and agencies involved.

The National Plan covers the following areas: general forecasting of disasters and accidents and their consequences, relief planning, warning and preparation of the authorities and task forces, management, organisation and execution of emergency relief and rehabilitation operations, responsibilities and practical arrangements for implementing the Plan, public information, etc.

It is the chair of the National Standing Committee who orders the National Plan to be implemented. The other plans are activated by the respective heads on the instructions of the chair of the Standing Committee.

Establishments of national importance draw up their own plans, similar to the National Plan.

The layout of the plans is as follows:

- general provisions;
- objectives;
- accidents and disasters liable to occur within the territory covered by the plan (the national territory, a particular region, municipality, enterprise, etc);
- conclusions on the situation in the territory concerned and the main objectives arising therefrom;
- emergency preparedness measures and measures to implement the plan;
- procedure for notifying the Standing Committee;
- management of activities to mitigate the consequences of an emergency;
- procedure for implementing the plan and notifying the public;
- etc.

At national level, in addition to the main Plan, six other plans have been drawn up for specific risks such as earthquakes, floods, industrial accidents, etc.

At local level, external contingency plans are drawn up for industrial risks, based on the information provided by the operator (see above, point A).

Local crises are handled by the Municipal Standing Committee in co-ordination with the relevant departments and units (notably the head of the regional inspectorate for the environment and water) under the authority of the mayor.

Regional crises come under the authority of the prefect, and are managed by the Regional Standing Committee, assisted by the subordinate authorities, in co-ordination with the relevant departments (notably the head of the regional directorate for the environment and water) and with the support of national forces and specialists, if necessary.

The national Standing Committee - SCPPCDA - handles crises which affect more than one region or which are of national importance.

A national information system, which monitors the national situation on a day-to-day basis, is also attached to the SCPPCDA Committee.

Despite the sectoral approach and the clear division of powers and responsibilities in the field of prevention, the co-ordinating bodies such as the Civil Protection Agency (for operational matters) and the Standing Committees (for overall management) are more concerned with crisis prevention in the sense of emergency preparedness than with primary risk prevention, in the sense of reducing exposure to risks.

## **5. Bulgaria: strengths and weaknesses**

### **1. Strength: civic responsibility**

Bulgarian law places considerable emphasis on civic responsibility, with different sections of the public having different levels of responsibility: managers are responsible for civil defence within their particular ministry, institution or organisation; in the districts and municipalities, it is the chairs of the municipal councils and the mayors who are responsible while in “units of the national economy” it is the managers, directors, heads, presidents, etc of these units who are responsible for civil defence within their respective units<sup>91</sup>.

In addition, every citizen has an individual responsibility under the Bulgarian Constitution. To enable citizens to assume this responsibility, the Public Education Act provides for a compulsory risk education programme. All the relevant ministries are involved, which in itself helps to ensure a multi-disciplinary approach to public education.

### **2. Strength, general policy: protection of the population and national economy as part of a social, scientific and educational approach**

Civil protection is defined as a range of humanitarian activities of a social, organisational, economic, scientific, technical and educational nature. Apart from the more traditional sectors (all the emergency services and the political authorities), the term “civil protection” in Bulgaria thus implies a truly multi-disciplinary approach (social, economic, scientific and educational).

Reference is often made, moreover, to the twofold objective of protecting the population and protecting the national economy (which is a very different approach from, say, sustainable development where the focus is on people and their environment). This allows consideration to be given to socio-economic factors when framing public protection policy.

### **3. Strength, natural risks: compulsory consultation of all the authorities concerned.**

The Environmental Protection Act expressly states that the Minister of the Environment has a duty to develop his strategy in consultation with all the ministers concerned with a particular problem (Art. 24, §1, 1°). Before taking a decision, he must consult the Ministers of Public Health, Agricultural Development, Spatial Planning, Regional Development, Housing, Construction and other national bodies (Art.24, §1, 7°).

### **4. Moderate strength: confusion over the notion of prevention**

Bulgarian legislation includes prevention in the list of organisational measures to be taken to deal with emergencies. The action in question is not risk prevention but rather emergency prevention, which falls more within the ambit of emergency preparedness.

When Bulgarians talk of co-ordinating prevention and crisis management, therefore, they are not referring to an integrated approach between risk prevention and crisis management.

### **5. Strength, chemical risks (prevention, planning): simplified procedures for industry thanks to a centralised system of prevention and emergency management**

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<sup>91</sup> Art. 8 Decree n° 265/09.02 1978 for Civil Defence

The regulations on dangerous industrial sites are aimed at preventing and mitigating the consequences of major accidents. It is the responsibility of the operator to develop a prevention policy that includes both of these elements. This prevention policy covers aspects which come within the purview of more than one authority.

For all matters relating to prevention, the operator must go through the Ministry of the Environment (authorisation procedure).

For matters relating to contingency planning and major accident management, the operator will deal mainly with the Standing Committee.

## **6. Strength, chemical risks: co-ordination between the competent authorities**

Thanks to a consultation procedure, all the competent authorities concerned with a particular aspect of preventing or mitigating the consequences of a major accident are involved in the procedure for authorising activities which are potentially dangerous because of the presence of hazardous substances.

## **7. Strength, all risks: operational co-ordination and general management co-ordination**

The National Agency for Civil Protection co-ordinates the day-to-day aspects of dealing with a particular crisis while the Standing Committees co-ordinate all the managerial aspects, including rehabilitation and in particular victim compensation.

## **8. Major strength, all risks: the role of the Standing Committees in risk management**

The most original feature of the Bulgarian system is undoubtedly the fact that there are Standing Committees at national, regional and local level, as well as within each public and private entity.

Because their members are drawn from different sectors, these committees are able to adopt an integrated approach to emergency management. They have a genuine capacity to respond thanks to decision-making powers and the fact that any decisions approved by their members are binding on the administrations and departments they represent.

**Moderate strength:** the Standing Committees are competent to deal with prevention and emergency management but in reality, the kind of prevention that is practised is more about preparedness and does not encompass the wider area of risk prevention.

## **9. Strength: horizontal co-ordination, vertically integrated assistance**

The SCPPCDA Committees provide horizontal co-ordination thanks to their multi-sectoral composition. They are assisted by a Scientific Council and a number of boards of experts, thereby ensuring that the decision-making process includes vertically integrated expertise based on the type of risk involved.

## **10. Strength: the power of the Civil Protection Agency to act**

Like the decisions taken by the Standing Committees, the orders and instructions issued by the head of the Civil Protection Agency are binding on the departmental managers to whom they are addressed.

## **11. Moderate strength: risk of over-regulation**

The number of regulatory texts on risk prevention and management is estimated at 1500<sup>92</sup> !

## 6. Conclusion

Bulgaria has extensive co-operation machinery:

- the joint efforts of the various bodies to educate the public about risks,
- the obligation on the Minister of the Environment to develop environmental policy in consultation with the other ministerial departments concerned,
- the involvement of various competent authorities in the authorisation procedure for chemical risks,
- the wide-ranging responsibilities and the decision-making powers of the Standing Committees, both interministerial and intraministerial, at national, regional and local level.

Although all these mechanisms are multidisciplinary, they are often concerned with only one or two aspects of risk management and do not make for a truly comprehensive, integrated approach spanning all aspects of risk management (risk prevention – preparedness and crisis management – rehabilitation).

## 7. Legal references (selection of the most relevant texts)

- ✓ Art. 61 of the Bulgarian Constitution concerning citizens' obligation to assist the government and the municipalities in the event of a natural or man-made disaster
- ✓ Council of Ministers Decision No. 53 of 2 March 2001, transforming the Civil Protection Service of the Ministry of Defence into the State Agency for Civil Protection, attached to the Council of Ministers
- ✓ Protection against the Harmful Effects of Chemical Substances and Products Act of 4 February 2000
- ✓ Administration Act of 1998, Section 31 on the obligations of local governors
- ✓ Regulation on the conditions and procedure for obtaining permission to build and operate new establishments or installations and on the operation of existing establishments and installations, introducing a system for preventing major accidents involving hazardous substances and mitigating the consequences thereof (Official Gazette, No. 13 of 3 February 1998)
- ✓ Council of Ministers Decision No. 18 of 23 January 1998 on the rules on prevention and mitigation of the consequences of natural and technological disasters
- ✓ Occupational Health and Safety Act of 23 December 1997, Section 29, §1, 1° which sets out the employer's obligations in the event of a disaster and the procedures for co-operation with the civil defence and fire services
- ✓ The Defence and Armed Forces Act of 1996, Section 6, 15° on the protection of citizens in peacetime and wartime and Section 54 on the obligations of government institutions and their staff
- ✓ Plans for the participation of the armed forces in the event of disasters and accidents
- ✓ Environmental Protection Act of 1991

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<sup>92</sup> Source: Analysis of the legislation in the area of risk prevention in the Republic of Bulgaria, January 2002, European Center for Risk Prevention Training at School Level (CSLT), Sofia, Bulgaria

- ✓ Decree of 14 December 1990 on protection against the harmful effects of activities involving hazardous chemical substances
- ✓ Decree of 18 July 1978 on rescue operations in mines and chemical and metallurgical enterprises
- ✓ Decree No. 265/09.02 of 1978 on Civil Defence

*Would better capitalising on and sharing of knowledge  
not help stakeholders in risk prevention  
to progress faster and at a lower cost?*

Ghilaine Guimon,  
of the Ministry of Ecology and Sustainable Development  
Préventique Sécurité 75, 2004/5

*... We must not expect technology to solve everything:  
whatever the density of the information input required to understand these phenomena,  
we must first and foremost **increase our capacity of interpretation***

*Unlike a number of other international players  
who are trying to put all safety measures into the hands of a single body,  
we believe it is preferable for all those active in risk control,  
whatever their ministry of attachment or even their industry,  
to bear in mind the concept of global security,  
**feel that they are part of a whole and, accordingly,**  
**work in a spirit of complementarity.***

Terrorist threats, emerging risks and global security –  
The responsible and determined message of Jean-Marc Berlioz,  
Director of INHES  
Préventique Sécurité 74, 2004/3

## **Chapter 6 : Comparative analysis : findings and recommendations**

### **Comparative analysis: findings and recommendations**

The list of strengths and weaknesses per country is in itself an inventory of best practices to build on, and shortcomings to be improved, suggesting lines of thought to countries wishing to evaluate their risk management arrangements, as well as approaches they might wish to reconsider.

The most interesting of these from the point of view of interministerial risk management are set out and compared below.

Recommendations are also made, concerning certain subjects worth studying in greater depth and highlighting certain strong points.

Their merit was assessed on the basis of criteria drawn from the national and international literature (see bibliography) and the impressions voiced by the national experts consulted (officially and informally).

The summary reflects the author's own interpretation.

#### **▪ In general: the difficulties of a comparative study**

##### ***(1) Competence sharing between different administrative levels<sup>93</sup>***

The subject of the comparative analysis was interministerial risk management and, as such, it concerned co-ordination mechanisms at the national level (Bulgaria, France) and at the federal/regional level (Belgium, Russia).

Making this distinction between the national/federal level and the next level down proved to be no easy matter.

In Belgium, for example, the governor has specific responsibilities under provincial law, tasks delegated from the federal level (Interior Ministry) and tasks delegated by the region. In the texts the distinction between the levels appears clearly, in so far as when the governor's powers are delegated, this is explicitly mentioned. The same applies to Bulgaria and the spread of competences between the national ministers and provincial governors.

In France, on the other hand, the distinction is not so clear-cut. The Prefect being a representative of the state, the law sometimes refers to the state as if it meant the Interior or Environment Ministry, for example, when in fact it is the Prefect who takes on the responsibilities concerned in practice. It is difficult to establish whether the term "state" refers to the government ministries and/or to the Prefects.

In Russia, the distinction between federal and regional competences (autonomous republics) is blurred by the legal terminology used, which is too vague to be able to tell with any certainty who has exclusive power in a given field and who shares power and based on what criteria.

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<sup>93</sup> Comparison can be difficult, in part because of differences in the technical approach to devolution, for example between decentralisation (the transfer of power to a lower level) and "deconcentration" (transfer of executive power to a representative of central government operating at the level of a non-central territorial unit). A deliberate decision was taken not to study this aspect of the question in any greater depth, in order to avoid getting bogged down in such legal technicalities, but the point is worth noting.



## **(2) Mentalities**

The subject of the comparative analysis was interministerial risk management, in an attempt to identify the mechanisms used to co-ordinate risk prevention and crisis management at the national level for two types of risk: floods and chemical hazards.

It proved very difficult to obtain useful information or even ideas not confined solely to the prevention of flooding, the prevention of chemical hazards or crisis management. In the legal texts, the literature and the views expressed by the officials consulted, the three aspects of the study are strictly segmented.

While it is normal that people should speak about their own expertise and experiences, it is surprising to find that the frame of reference and reflection is almost systematically and strictly limited to their assigned competences, with no sign of any desire to consider the possible implications outside their respective spheres of competence.

Questions such as "Would it not be useful for you to receive information from this or that other authority?" or "Wouldn't your experience or findings be useful for this or that other authority?" often met with such answers as "probably/certainly, but there is nothing we can do about it because we have no authority to request information outside our sphere of competence" or "that does not concern us as it is not part of our remit", and so on.

This segmentation in the texts and the administrative structures would thus appear to prevent the officials concerned from mentally stepping outside the boundaries imposed on them.

Thinking about the broader context, transcending one's own sphere of competence – even in the interest of one's own competences (!) – is apparently not customary procedure.

## **(3) Terminology**

Comparing how the prevention, preparation, co-ordination, etc of risk management are organised solely on the basis of the relevant legal texts would inevitably lead to errors because the same concepts are used in different contexts with no explanation of the content, and mean different things to the different people (doing different jobs) who use them.

A few examples:

- in environmental law, prevention essentially concerns measures to minimise risk exposure
- in legislation on civil security, prevention involves crisis management preparedness measures or pre-alert and/or alert measures to prevent accidents from degenerating into (major) crises, or measures to limit harmful effects (in prevention plans in France);
- protection sometimes concerns measures taken in a crisis situation to protect the population and/or the environment against the negative effects of a disaster,<sup>94</sup> but protection can also mean "structural and non-structural measures to minimise the likelihood of floods and/or their impact in a given area";<sup>95</sup>
- emergency planning as such does not exist as a legal concept in Russia, where it is lumped in with measures to avoid emergency situations and limit their consequences;
- preparedness often includes planning, but the other measures involved are not always specified, with the result that they differ from country to country;
- informing the population about the risks and the measures to be taken is sometimes placed under the heading "prevention" (under the responsibility of the Environment Ministry) and sometimes under "preparedness" (information on chemical hazards by the Federal Public Services – Internal Affairs – in Belgium, or preparing for floods in the Communication issued by the European Commission);

<sup>94</sup> The traditional missions of civil protection or security

<sup>95</sup> Communication of the European Commission on "Flood risk management", chapter 1

- in industry it is generally accepted to refer to primary prevention (reducing exposure to danger), secondary prevention (avoiding accidents) and tertiary prevention (damage control in the event of an accident);
- and the list goes on.

The same applies to the concepts of civil security or protection, major hazards, crisis or emergency situation, rehabilitation or post-crisis phase, control mechanisms, etc.

Inevitably, therefore, if exchanges of experience and best practices are to be envisaged, it is imperative to agree first of all on the meaning of the different concepts used. In a context of international exchange, there is the additional difficulty of finding an equivalent concept in every language.

#### Terminology – recommendation 1:

It would be useful to compile an international glossary in English and French and have it adopted by as many international organisations as possible to give it a certain moral authority, without it necessarily being a legally binding document.

- *The different stages of risk management policy*

#### **(4) Taking stock of and analysing the risks**

Traditionally risk management relied on a retrospective approach to incidents and accidents to determine risk prevention and management measures for the future. The emergence of new risks, increasing vulnerability, the (causal) complexity of the risks, the accelerating pace of technological progress, etc, mean that there is no longer time to await the lessons of experience before putting preventive measures in place. It is no longer enough to be better prepared to face the risks of the past; it has become essential to develop means of responding to the risks of tomorrow. More anticipation is needed.

This is all the truer in so far as human, material and financial resources are limited by definition. Zero risk is impossible to achieve. When allocating the resources available (do we know what they are?), choices must be made and priorities defined.

Identifying and analysing the risks should therefore be the first step in any risk management policy.

The Belgian authorities have just completed such an inventory for the whole country and the draft royal decree on emergency planning makes the same requirement of municipalities and provinces.

In France one of the tasks of the new National Civil Security Council will be to chart risks and their typology, with a similar obligation at '*département*' level.

Russia and Bulgaria have included this in their action programmes spanning several years. In Russia, risk analysis provides the basis for an inventory of the country's vulnerable points, which in turn serves as a basis for national policymaking, which resulted in the unified national system for the prevention and elimination of emergency situations. In Bulgaria the approach has remained largely retroactive.

#### **Risk inventory and analysis – recommendation 2:**

The competent authorities at every level, national, regional and local, should be encouraged to take objective stock of the hazards present in their territory and analyse them in terms of probabilities, potential damage, perception and acceptability, etc. The findings will provide a sound basis for their risk management policy (strategy).

### ***(5) Drawing up a risk management policy: strategy***

The findings of the risk analysis will indicate the level of vulnerability of our societies. The thinking behind the European IPPC Directive is that to develop a prevention policy for each type of risk could lead to transfers from one field to another and compromise the general goal of protecting man and the environment. Only integrated management, including the co-ordination of the efforts of all the authorities concerned, will guarantee a high level of protection. Consultation is therefore required even in the early stages:

- setting of objectives that look further than the specific competences of each authority,
- sharing of responsibilities based on the specific competences of each authority concerned: this means specifying their respective contributions to the achievement of a common aim,
- sharing budgetary and other resources to match the responsibilities assigned.

In France, this is partially achieved through co-ordination of the preparatory legal work.<sup>96</sup> Technical and policy meetings oblige all the ministerial departments concerned to think together about their respective contributions, based on their own competences, to common goals that extend well beyond their respective powers.

In Belgium this determination of common objectives and sharing of responsibilities has only been achieved in the co-operation agreement on Seveso risks.

In future the new technique of regulatory impact assessment (RIA) could produce the same result. The Flemish government made this procedure mandatory from 1 January 2005. RIAs mean identifying all the competent authorities in order to achieve a common goal, thinking about the most appropriate means and considering means other than rules and regulations for achieving that goal, assessing the socio-economic impact of the means concerned and explaining the options adopted. It will take a few years to measure the impact of the RIAs, however, as they have only recently been put into practice.

In Russia and Bulgaria the approach has remained more vertical where policy-making processes are concerned, integration being achieved more at the application stage, with the very broad competences of Emercom in Russia and the Standing Committees in Bulgaria.

This prior consultation is comparable to negotiations for a private-law contract: consultation and the search for consensus are decisive factors of success. Thinking before acting is often the best form of prevention. The negotiations may prove long and difficult, but the consensus eventually achieved will guarantee the support and firm commitment of all the parties concerned.

### **Developing a strategy – recommendation 3:**

It would be useful to encourage national authorities to introduce consultation procedures in order to develop a comprehensive risk management strategy, including the definition of common goals, the determination of the parties' contributions based on their respective competences and the allocation of resources in keeping with their respective responsibilities.

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<sup>96</sup> See information above on the law of 2004 on the modernisation of civil security

*What information should be given? How should it be conveyed?  
While the guidelines defining arrangements  
for formulating and disseminating information  
are laid down at the institutional level,  
it is at the local level that the information is used.  
It is at the local level that the obstacles,  
the shortcomings in the communication system, become apparent  
and the pressures and challenges are greatest.*

Danielle Guesnet  
Préventique Sécurité 75, 2004/5

### ***(6) The added value of interministerial co-ordination***

Major hazard management traditionally gives priority to local emergency responses: first at municipal level, then at county/province level, then at national/federal level.

The role of the national authorities is mainly to define the legal framework, send in reinforcements when local resources prove insufficient and co-ordinate the work when a crisis takes on national proportions.

As it is for the national authorities to define the framework and minimum measures required, it is also important for the national authorities to have an overall vision. The lower levels are obliged in practice to apply a global approach because they are on the receiving end of all the regulations adopted at higher levels by the various ministerial departments, so if the overall approach is not coherent it is they who have to cope.

This suggests several arguments in favour of as much collaboration as possible early on in the process:

- to offset the lack of local knowledge at the national level, interministerial co-ordination would involve bringing all the parties concerned together to exchange information and experience, contributing to enhanced awareness and consideration of all the aspects of a given problem and thereby to more coherent and effective decision making;
- interministerial co-ordination in the development of the broad framework could produce more coherent measures and procedures that are easier to apply (a single procedure and a single document to transmit to a single interlocutor); a fine example is the co-operation agreement on Seveso hazards in Belgium;
- the successes and merits of local initiatives today are often the result of the dynamic approach of the local players. The national authorities could also play a role in the development of these initiatives and extend their co-ordination work to the application of the measures imposed: centralising guides, handbooks, best practices, taking stock of the training available at the national and international levels, creating databases containing the contact details of experts specialised in all the relevant aspects of risk management, etc. and making all this information available to the authorities concerned; this would no doubt contribute to improved compliance and, in time, more uniform compliance with legal obligations.

### **Need for interministerial management - recommendation 4:**

It would be useful to encourage the authorities at the higher end of the scale (national, federal, regional) to reconsider their essentially vertical approach to decision making in order to facilitate implementation further down the line (at the regional, county, municipal and industrial levels).

### ***(7) Distribution of competences***

In the four countries studied there are thousands of positive-law regulations (laws, decrees, orders, circulars, etc.) and 'soft-law' texts (codes of good practice, guides, guidelines, etc.) which adopt a vertical approach, per type of risk, or a horizontal approach, covering all types of risk.

In spite of this huge mass of documents, it is not always clear who is responsible for what. The co-operation on Seveso hazards is one of the few good examples of clear distribution of responsibilities.

The most striking counter-example is responsibility for prevention. Almost all authorities have a degree of responsibility for prevention, but without an exact definition it is not clear what this prevention entails.

And as prevention is ill-defined, it is not clear where it stops and where preparedness begins. Who decides today, who determines, and based on what criteria, whether a situation is in the incident management phase, the pre-alert phase – and therefore a job for the people responsible for primary prevention – and when the authorities responsible for crisis management should take over, when a certain level of alert is reached, to control the accident or the critical level of the water and prevent the situation from degenerating into a disaster?

The texts pass these questions over in silence.

The result is predictable: at times several authorities feel responsible based on a broad interpretation of their duties (which the texts permit), hence the risk of contradictory or even conflicting measures; on other occasions no-one will feel concerned and the response will come too late.

Exaggerating, one might say that it scarcely matters in effective risk management **who** is responsible, provided that **someone** is responsible and that their responsibility is clearly established and defined.

#### **Need for clear distribution of responsibilities – recommendation 5:**

It is essential to clearly assign responsibilities for every aspect of risk management in order to avoid omissions or, on the contrary, conflicts of "interest" in the event of duplication.

#### ***(8) Risk prevention: avoiding exposure to danger and monitoring the application of preventive measures***

The previous study<sup>97</sup> showed that emergency plans have proved their usefulness in bringing together all the various players, under normal circumstances, to meet and agree on the joint action to be taken in the event of an emergency.

Like private law contracts, the negotiations essential when two or more parties feel the need to enter into formal agreement in writing are often the best means of prevention.

Why not consider generalising prevention plans like the "Rain" plan in the Walloon Region, which involves all the competent authorities, defines 5 targets to be achieved together and specifies 27 practical measures for achieving them, in 5 spheres of competence.

Monitoring mechanisms were not the purpose of this analysis, but the importance of inspection reports for prevention was systematically emphasised in the conversations with officials in charge of prevention. Strengthening the monitoring machinery and taking into account the findings of inspection operations are two important means of making prevention more effective.

#### **Envisage prevention plans – recommendation 6:**

The authorities responsible for risk prevention (primary prevention or the reduction of exposure to danger) should be encouraged to draw up prevention plans along similar lines to the emergency plans: bringing together all the competent departments around common goals and specifying what action they should take in their respective spheres of competence, including monitoring mechanisms.

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<sup>97</sup> Comparative analysis of legislations on major hazard management in the 26 member states of the Council of Europe's EUR-OPA Major Hazards Agreement, Doc. APCAT (2003) 39

### ***(9) Crisis management: preparing and co-ordinating rescue operations***

It is generally agreed that emergency plans have proved their usefulness in bringing together all the various players, under normal circumstances, to meet and agree on the joint action to be taken in the event of an emergency.

Russia is the only country where emergency planning is not explicitly provided for in the legislation but implicitly included in the obligation to take all necessary measures to prevent and limit accidents.

In the other three countries emergency planning brings together all the players whose role is to respond to a crisis situation, identifies the human and material resources that can be mobilised and determines the chain of command and co-ordination.

There is no link with primary prevention, however.

Those who in normal circumstances are "planners" and in times of crisis, managers, generally build on the experience of past crises in order to prepare for those that lie ahead.

The question then arises whether emergency planning, in order to prepare effectively for tomorrow's disasters, should not begin where primary prevention ends:

- in all prevention policy there are risks which are not and cannot be controlled (in flooding the zero risk option is considered unrealistic today; in industrial hazards human error is inherent in every activity and every system has its weaknesses, etc). There will always be residual risks which we cannot eliminate, or which would be socio-economically too costly to reduce further;
- where industrial risks are concerned, inspection reports could provide 'planners' with useful information as they reveal the weaknesses of faulty prevention policies.

Could critical information unearthed through prevention not help emergency planning to be more in phase with the real threats? These considerations tie in with those on the need to take stock of and analyse risks and in particular the need to make choices and establish priorities when allocating the available resources, which are limited by definition.

#### **Emergency planning in phase with prevention – recommendation 7:**

Perhaps emergency planning should make more allowance for residual risks left over after primary prevention, which are not and/or cannot be controlled.

### ***(10) Rehabilitation: getting things back to normal***

Rehabilitation or the organisation of efforts to restore the situation to normal is not the subject of this analysis. By analogy with the other points, however, it is conceivable that rehabilitation or post-crisis plans would be useful.

#### **Post-crisis plans – recommendation 8:**

Consider the usefulness of 'post-crisis plans', by analogy with emergency planning.

### ***(11) Lessons learnt from incidents and accidents***

Two examples of data bases containing an inventory and an analysis of industrial incidents and accidents were found: BARPI (Bureau of Industrial Risk and Pollution Analysis) in France and MARS – Major Accident Reporting System, run by the European Commission. It has not been possible, however, to ascertain to what extent the results of these analyses are taken into account by the authorities concerned. There is no denying that the analysis of

incidents and accidents could provide useful information on the flaws in prevention, preparedness and crisis management.

**Integrating the lessons of the past into risk prevention and crisis management – recommendation 9:**

The competent authorities should be encouraged to invest in the mapping and analysis of incidents, accidents and disasters and to develop means of incorporating the results of these analyses into risk prevention and crisis preparedness and management.

***(12) Develop and disseminate knowledge, educate, train***

Many initiatives are currently being taken at the level of the *département* or province, the municipality and even industry (see section (6) on interministerial management). For want of centralised data bases, the information and tools concerned are known only to those who helped to develop them or those who use them. To save each mayor, governor or prefect the trouble of reinventing new responses to old or new challenges, the state could play an important role in centralising this information and making it available. For example:

- A competence matrix:  
Centralise at the national level an inventory of the competences available in every field of risk management, at the national and European levels, which can be called upon if needed.
- A best practice data base:  
**Cf. the competence matrix: set up a data base of national and international legal instruments, scientific publications, codes of good practice, handbooks and other management aids. This information does not need to be physically present, an inventory of all the available information and where to find it would in itself be a great help.**
- A training data base:  
An inventory of existing types of training and/or handbooks, at home and in other countries of Europe.

Certain initiatives already exist at the European level: the European Integrated Pollution Prevention and Control Bureau (EIPPCB) in Seville collects Best Available Techniques (BAT) and publishes them every 3 years in a Reference Document – BREF. The Commission's Civil Protection Unit runs an 'Expert Exchange System' which gives national experts an opportunity to attend training courses or find placements in other European Union member states.

**Exchange information on competences, best practices and training – recommendation 10:**

It would be useful to encourage national authorities to centralise information on available competences, best scientific and other practices and training at the national level. It would also be useful to envisage organising national data bases into networks.



### ***(13) From knowledge to decision aids:***

As explained in connection with the need for risk analysis, traditional risk management based on crisis prevention and preparedness is increasingly unsatisfactory. Traditional risk management involves learning from the lessons of the past, whereas we are increasingly faced with situations where we do not have all the necessary information and we lack experience. Our decision-making structures must be in keeping with this reality. First of all, therefore, we need to step up research to improve our understanding of the increasingly complex phenomena involved. And secondly, it is no longer sufficient just to keep track of the available means and know-how so that they can be put into use when needed. Instead, we must develop management tools to help us determine in good time which are the most appropriate resources to mobilise. Indeed, this applies to all decision-making processes. Deciding means making choices, by definition, selecting options for the future, which includes a forward planning dimension, projecting our thoughts into the future and imagining what the situation will be tomorrow, the situation the decision will actually apply to. Today's knowledge is never enough to reach a decision. It takes other competences and therefore probably also another profile of decision maker and another type of decision aid for their use.

#### **From knowledge to decision aids – recommendation 11:**

We must step up research to improve our knowledge of increasingly complex phenomena. In addition to developing knowledge, to help us apply it to the best possible effect, we must develop our ability to interpret that knowledge, as well as aids to decision making.

### ***(14) The cost of prevention versus the cost of repair***

One thing about which our research yielded little or no information was cost: the cost of prevention, preparedness, management, rehabilitation, exercises, etc. Such information, needless to say, would help to measure the efficacy of the structures in place.

#### **Cost of risk management – recommendation 12:**

The authorities concerned should be encouraged to introduce cost analysis as an evaluation factor in the organisation of risk management.

### ***(15) Evaluation criteria***

The other main area in which the research results provided little information concerns legal evaluation criteria, in the regulatory texts, and practical evaluation criteria, introduced out of concern for operational efficacy.

Each country's legislation requires industrial plant operators to evaluate their prevention policy in order to adjust it to new parameters; there is no such obligation where public services are concerned.

To preserve its credibility vis-à-vis its private sector partners, the Chemical Hazard Directorate of Belgium's Federal Employment and Labour Service made the necessary investment to obtain an ISO 9002 certificate, thereby becoming, on 1 April 1999, the first Federal Public Service to be awarded such a certificate for its service quality management system.

### **Evaluation criteria – recommendation 13:**

The authorities concerned should be encouraged to define evaluation criteria to enhance their efficacy and attune their activities to their aims.

### ***(16) Securing continuity: creating bonds***

All domestic regulations require industrial operators to develop prevention policies that include working out a strategy, based on the identification and evaluation of the risks present, planning and application of preventive measures and systematic evaluation of these measures to adjust the prevention policy. Dynamic risk management means respecting a certain sequence of events (strategy, prevention, preparedness, etc.) but also a management approach attentive to the proper functioning of individual units, which have their specificities and require specific competences, as well as the functioning of the whole, which has its own dynamics.

This analysis of interministerial risk management co-ordination mechanisms shows once again that in the public sector, good risk management approaches exist in certain respects (prevention or planning) and/or for certain specific risks, but the global vision is completely lacking.

The distribution of their respective tasks has led the authorities and the people in charge to carry out their duties, mobilise their resources and focus their efforts to achieve their particular objectives. Collaboration exists mainly where there is a formal obligation (transposition of the Seveso Directive by the Co-operation Agreement in Belgium) and where urgency and human suffering make it necessary (crisis planning and management). There are various other spontaneous initiatives, but with no structural framework.

In order better to protect our societies (human beings, environment, economy, social progress, etc.) against risk, an overall vision must be developed and attitudes must change so that each of the various players contributes, by achieving their own objectives, to the common cause, which is to help build a better world.

By analogy with the success of emergency planning or the Co-operation Agreement on dangerous activities in Belgium, it would be useful to look beyond our usual reference frameworks and habits and:

- rethink our common goals;
- identify all the authorities with competences that can help to achieve them;
- identify the competences and knowledge that should be 'shared';
- determine the best means of sharing them.

This means identifying the 'nodes' where synergy is needed and recreating the links between the different components.

Why not consider combining two experiences that have demonstrated their merits (emergency planning and a co-operation agreement) and incorporating into a single document prevention, planning, management, rehabilitation and evaluation, each aspect being dealt with by the authorities specifically concerned, and the whole making it possible to identify the essential synergies?

A proposed structure for a global risk management plan is outlined in Appendix 2.

### **The strategic approach to risk management - recommendation 14:**

Consider preparing a strategic document encompassing every aspect of risk management, with sections on each component (strategy, prevention, preparedness and management, rehabilitation and evaluation) and, for each section, chapters indicating the specific approach for each type of risk.

*We have seen that the nature and effects of risks  
are changing in our 21st century societies:*

1. *New threats*
2. *Increased rate of global climate change*
3. *Development of information and communication societies*
4. *The extent of the "domino" effect in crisis situations*
5. *Increase in the cost of compensation*
6. *Emergence of new syndromes and the search for their causes.*

*As a result of these new developments and trends,  
the notion of "global risk management", based on the following  
three fundamental principles, is being adopted:*

- *Consideration of all types of risk*
- *The involvement and participation of all parties involved in the management of risk and emergency situations*
- *The concept of a disaster life cycle.*

*We then sought to identify areas where efforts must be made  
to optimise risk management.*

- I. *Participation of the parties involved in risk management*
- II. *Reducing vulnerability*
- III. *Optimising mechanisms for assisting with decision-making in the management of risk and emergency situations*
- IV. *Developing education and information programmes*
- V. *Taking into account the sustainable development principle in risk management*
- VI. *Adapting European and national legislation to global risk management and strengthening inspection and control mechanisms*
- VII. *Strengthening European, Euro-Mediterranean and international co-operation.*

Council of Europe EUR-OPA Major Hazards Agreement  
Its role in Euro-Mediterranean co-operation for risk prevention,  
Doc AP/CAT (2004) 39 Or. Fr.  
Jean-Pierre Massue, Member of the European Academy of Sciences and  
Arts.

## **Conclusions**

Amongst the studies the Higher Institute for Emergency Planning has produced in recent years, the one on national civil protection structures (1996), the one on the legal framework of risk management (2003) and above all this latest analysis on interministerial management show the trend and the new directions being taken in major hazard management.

After the mono-disciplinary specialisation that has marked these last few years, the trend today is a return to a global vision.

Illustrations of this specialisation include, where risk prevention is concerned, the creation of environment ministries since the 1970s (distinct from the ministries responsible for industry), and the efforts at co-ordination, intensified under the impetus of the Seveso Directives, for emergency planning (Russia and Bulgaria have advanced along similar lines). The creation in certain countries of State Secretariats or Ministries for sustainable development is another illustration of this phenomenon of introducing a whole new sphere of competence the moment the problem takes on a certain political importance.

For all its merits, this specialisation has the distinct disadvantage that it results in partitioning.

An initial change is to be seen within each specialisation, where co-ordination mechanisms are increasingly being set in place: co-ordination of planning, co-ordination of preventive measures, integrated policy on pollution and pollution control, etc.

The trend now under way is a sign of new awareness of the need and the will to generate greater synergy that goes beyond the various components, beyond specific disciplines.

This analysis reveals that initiatives are being taken along these lines, but that they remain partial.

### **THINK GLOBAL**

#### **Adopt an interdisciplinary approach to risk**

After years of specialisation, it is very difficult to make public officials look beyond their reference framework, which is defined exclusively by the competences assigned to them. This also applies to (scientific) experts, who are not accustomed to taking an interest in other disciplines. Beyond any question of need, even simple intellectual curiosity is soon discouraged because thought patterns, methods and languages differ from one discipline to another.

To move progressively towards a more global approach to risk management and restore an overall vision - including developing a strategy, risk prevention, preparedness and crisis management, and rehabilitation or the return to normal - the first condition is certainly to make all the players aware of their responsibilities and their contribution to a global effort that goes well beyond their respective spheres of competence.

### **ACT INTEGRATED**

#### **Adopt an integrated, multidisciplinary approach while respecting each party's competences**

The lack of readiness to adopt this approach probably stems at least in part from fear of losing power over one's own competences.

The basic idea behind this analysis was to identify co-ordination mechanisms. In the course of our research, however, we found that the mere mention of co-ordination triggered defensive, protectionist reactions. Probably because co-ordination suggests a higher level of command, someone who would take over control, to whom one would have to relinquish some of one's powers and to whom one would therefore be subordinate. Co-ordination is the key to successful emergency planning and crisis management, for obvious operational reasons; extending co-ordination to the other areas of risk management does not necessarily appear to be the best solution.

Other mechanisms must be found that offer the same advantages (bringing together authorities whose competences are complementary) without the purported disadvantages (loss of own competences). The integrated approach probably reflects much better this concern to maintain essential specialisation in a particular discipline while seeking to restore a global vision and respecting the dynamic and logic of the whole. This will mean implementing mechanisms that restore the chronological and functional links between the different components. The co-ordination mechanism is then only one means amongst others, such as consultation, exchange of information, formal or informal collaboration, etc., of giving body to these links.

The challenge is to respect the entities in their specificities and therefore also their specific competences and powers, to try to get them to work together in the manner best suited to the needs, which will vary from one place to another, to improve the functioning of each entity **and** the whole.

### **THINK GLOBAL - ACT INTEGRATED!**

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## **Appendix 1: list of recommendations**

### **Terminology – recommendation 1 :**

It would be useful to compile an international glossary in English and French and have it adopted by as many international organisations as possible to give it a certain moral authority, without it necessarily being a legally binding document.

### **Risk inventory and analysis – recommendation 2:**

The competent authorities at every level, national, regional and local, should be encouraged to take objective stock of the hazards present in their territory and analyse them in terms of probabilities, potential damage, perception and acceptability, etc. The findings will provide a sound basis for their risk management policy (strategy).

### **Developing a strategy – recommendation 3:**

It would be useful to encourage national authorities to introduce consultation procedures in order to develop a comprehensive risk management strategy, including the definition of common goals, the determination of the parties' contributions based on their respective competences and the allocation of resources in keeping with their respective responsibilities.

### **Need for interministerial management - recommendation 4:**

It would be useful to encourage the authorities at the higher end of the scale (national, federal, regional) to reconsider their essentially vertical approach to decision making in order to facilitate implementation further down the line (at the regional, county, municipal and industrial levels).

### **Need for clear distribution of competences – recommendation 5:**

It is essential to clearly assign responsibilities for every aspect of risk management in order to avoid omissions or, on the contrary, conflicts of "interest" in the event of duplication.

### **Envisage prevention plans – recommendation 6:**

The authorities responsible for risk prevention (primary prevention or the reduction of exposure to danger) should be encouraged to draw up prevention plans along similar lines to the emergency plans: bringing together all the competent departments around common goals and specifying what action they should take in their respective spheres of competence, including monitoring mechanisms.

### **Emergency planning in phase with prevention – recommendation 7:**

Perhaps emergency planning should make more allowance for residual risks left over after primary prevention, which are not and/or cannot be controlled.

**Post-crisis plans - recommendation 8:**

Consider the usefulness of 'post-crisis plans', by analogy with emergency planning.

**Integrating the lessons of the past into risk prevention and crisis management – recommendation 9:**

The competent authorities should be encouraged to invest in the mapping and analysis of incidents, accidents and disasters and to develop means of incorporating the results of these analyses into risk prevention and crisis preparedness and management.

**Exchange information on competences, best practices and training – recommendation 10:**

**It would be useful to encourage national authorities to centralise information on available competences, best scientific and other practices and training at the national level. It would also be useful to envisage organising national data bases into networks.**

**From knowledge to decision aids – recommendation 11:**

We must step up research to improve our knowledge of increasingly complex phenomena.

**Cost of risk management – recommendation 12:**

The authorities concerned should be encouraged to introduce cost analysis as an evaluation factor in the organisation of risk management.

**Evaluation criteria – recommendation 13:**

The authorities concerned should be encouraged to define evaluation criteria to enhance their efficacy and attune their activities to their aims.

**The strategic approach to risk management - recommendation 14:**

Consider preparing a strategic document encompassing every aspect of risk management, with sections on each component (strategy, prevention, preparedness and management, rehabilitation and evaluation) and, for each section, chapters indicating the specific approach for each type of risk.

## Appendix 2: Proposed model, for further development

### **The global risk management plan**

#### **1<sup>st</sup> part: objective setting**

1. **Inventory and analysis of risks**
2. **Mission statement:** elaboration of global strategy
  - Definition of common objectives
  - Clear distribution of responsibilities/definition of respective contributions
  - Determination of the means required
  - Definition of evaluation criteria

#### **Prevention section of global plan**

##### **Prevention**

1. Develop the knowledge available to those involved in prevention
2. Devise a risk prevention policy (reduce exposure to dangers)
3. Apply prevention measures
4. Educate the population in risk prevention
5. Early warning and analysis of incidents
6. Lessons learnt from incidents
7. Control of prevention measures
8. Analysis of cost of prevention
9. Evaluation and adjustment of prevention policy (based on lessons learnt, inspection reports, cost analysis)

#### **Preparedness and management section of global plan**

##### **Crisis preparedness and management**

1. Planning in phase with prevention
2. Develop the knowledge available to crisis managers
3. Educate the population in what to do in a crisis
4. Training in phase with the requisite competences identified in the planning stage
5. Co-ordinate actions based on consultation in the pre-alert phase between "preventers" and "crisis managers"
6. Co-ordinate the crisis managers' work in the alert phase to avoid the situation escalating into a major crisis
7. Co-ordinate crisis management
8. Apply the lessons of past experiences to crisis management and prevention
9. Analyse the cost of preparedness and management

#### **Post-crisis section of global plan**

##### **The post-crisis phase**

1. Rehabilitation: compensate victims and repair damage
2. Identify requisite competences, develop knowledge and organise the requisite training
3. Analysis of the cost of a return to normal

#### **Evaluation section of global plan**

##### **Evaluation of the whole**

1. Evaluate the strategy, based on pre-defined criteria
2. Evaluate the collaboration and contribution of the different authorities in attaining common objectives, based on pre-defined criteria, and adjust the global risk management policy



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