Non-stop flux city. How does civil security policy keep city always running?

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HOW DOES CIVIL SECURITY POLICY KEEP CITY ALWAYS RUNNING?

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Key-word

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Abstract

Urbanisation by itself does not increase vulnerability, but cities concentrate activities, infrastructures and populations. Even if we consider controversies on the increase of frequency and severity of hazards –either natural, technological or environmental–, the growing interconnectedness in cities means that major disaster events can affect higher proportion of lives and livelihoods.

The awareness of urban system vulnerability has risen in local public policies since 1990's. Today, representatives and public managers recognize the end of zero-risk society. They work on risk warning and crises management. In local context, the paper shows concretively how the concept of resilience draws the shift from risk reduction to risk mitigation. Civil security policies in municipal authorities are in charge of local safeguard planning. Although civil protection instruments were largely under-estimated during past twenty years in France, it is today responsible for resilience assessment and implementation.

In 2004, French civil security public policies declare principles for new crisis management in so-called "modernization" Law for civil security (1). The first article underlines that civil security focuses on risk prevention, communication and population warning, but also protection for people, goods and environment in front of accidents, disasters and crisis, by means of collective preparation lead by Central State, local authorities and, in general, every citizens (2). Beyond traditional objectives, modernization Law for civil security aims to reach three goals: new risks, new tasks and new partnerships.

Until 1990s, civil security policies are built on territorial risks prevention and reduction, i.e. risks that can spatially be foreseen (flood, snowstorm...). Public authorities largely manage risks as if they were only external causes from natural or industrial sources (Gilbert, 1992). The awareness of urban system vulnerability rises in local public policies during 2000s. Today, representatives and public managers recognize the end of zero-risk society. Civil security policies largely integrate systemic dimension of risks, especially in urban spaces. To prevent systemic risks, modernization Law of civil security

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introduces a global and inter-sector approach. Modernization Law recognizes the great mobility of risks that endanger population. Multiplicity of risks produces higher damages on urban territories. Disasters generate -directly and indirectly- collective costs, especially in densely inhabited cities where economical, social and human activities are strongly linked. Urbanisation by itself does not increase vulnerability, but cities concentrate activities, infrastructures and populations. Even if we consider controversies on the increase of frequency and severity of hazards –either natural, technological or environmental–, there is no doubt the growing interconnectedness in cities produces major disaster that can affect higher proportion of lives and livelihoods. For example, a windstorm spatially located (such as Xynthia windstorm, in France, in February 2010, has deadly remembered) disseminates endless consequences. On dense urban territory, technical network interconnectedness, such as water, electricity or gas, can produce large domino effects. Non-stop circulation of critical networks, even in deteriorated situation, is a priority in new civil security organization. Every blockage in circulatory technical network is seen as a potential risks for entire urban system.

Coordination between a wide series of partners becomes a key-word for new civil security policies. Modernization Law asks to Central State, local authorities, firefighters, first help services and technical network companies to combine forces. “Everyone is in charge of civil security” is a sort of motto. Local authorities are especially involved in civil security new objectives. They are in charge of the implementation of local safeguard plan. This operational tool for civil protection is highlighted in new civil security Law. It helps local authorities to put in order resources of protection, such as accommodation and food for unsheltered people in case of disaster. Safeguard organization lead by local authorities is different from defense organization guided by Central State, which cover first help to victims, ending danger or evacuating. Local authorities have to keep urban and social live going. Central State has to intervene to stop the danger.

It is important for urban analysis to study the political and territorial consequences of operational tools in land-planning. Inspired by science and technology studies (Dupuy, 1978 ; Latour, 1992), local safeguard plan are studied as technical measure which supports political vision of nature/society, sometimes hidden by pragmatic objectives. Plans and instruments are built on a technical scene and constructed through institutional struggles (Lascoumes and Le Galès, 2005). The study of concrete implementation of safeguard plans assesses two fallouts.

First, new local instruments of civil security policies open a window of institutional struggles between Central State and local authorities. Central State wants to maintain legitimacy in its traditional role of national defense, but with few spending and human resources. Local authorities in middle-range French cities get worried about the lack of means and dread not to be protected enough. Some local authorities decide to intervene in State defense sector, beyond their institutional responsibilities.

Then, the study of debates shows a profound vision of a "just-in-time city", in which no urban system failures can happen. Safeguard plans in case of disasters are grounded in the image of urban circulatory system, where every obstruction of flows of goods, services or information is seen as a major disaster (Lavigne, 1988). By extension, civil security tools are proposed to be used in crisis management. In a word, operational tools for civil security support the idea of urban systemic process, on the model of resilient system.

Those two points are analyzed through a double research method. On one side, the study of local civil protection plans in case of disasters brings the light on technical and concrete modalities, but also on its institutional and territorial issues with sociological driven conversations of civil servants and local representatives in French middle-range cities of 500 000 inhabitants (Le Havre, Nantes and Lyon). On the other side, quantitative results from statistic sociological investigation, in 2007, based on representative sample of 40 municipalities, give information on a national basis.

The three cities are middle range cities: Lyon (480.000 inhabitants), Nantes (290.000 inhabitants) and Le Havre (190.000 inhabitants). Each fluvial harbor is characterized by a different degree of commercial and industrial activity. Lyon and Le Havre have kept a chemical and petrochemical activity. In Nantes, industries have mainly disappeared in the economical crisis in the 1980's. Today its development is based on services, knowledge economy but most of all on an attractive urban way of life, due to the quality of environment and the proximity of a preserved sea-coast. Lyon and Le Havre make profits with their industrial sector but their local urban policies want to decrease the impact of industrial pollutions and risks. Today Lyon and Le Havre put forward the quality of their natural and patrimonial landscape in order to be identified as a modern metropolitan city.

In those three cases of studies, urban development and land planning policies have to deal with the presence of natural and industrial dangers. How do public authorities make use of civil protection instruments to handle the confrontation between urban growth and risk prevention ?

LOCAL SAFEGUARD PLANS, TECHNICAL AND POLITICAL INSTRUMENTS

In modernization Law of civil Security in 2004, Central State gives three years to a selected number of municipalities -considered as "at major risk" (3)- to realize their local safeguard plans to react in case of disaster. In 2010, 50% of the selected municipalities have concretely realized their safeguard planning (Gralepois, 2008a). Sociological investigation aims to this understand institutional, political or territorial dilemma. Why do municipalities not succeed to realize the new safeguard plan? Or why are they so reluctant? We analysis a gap between the operational objectives written in Law (to improve effective safeguard) and expected gains at local level (to strengthen experience and cooperation).

Statistical results enlighten that municipalities hope that local safeguard plans will develop data system and collaboration. Beyond operational demonstration, those two points reveal institutional controversies. Local safeguard planning is more than a technical process: it opens a new deal in local governance.

Urban interruption to renew data in crisis management

Safeguard plan in disaster situation is a paper or computer document. It gathers a series of data such as hazards compilation, vulnerability diagnosis, organizational design of human and technical means, logistics and informatics resources. Safeguard plan brings together all resources -from public to private sectors- that should be required in disaster situation: telephone number of doctors, water bottles plants, large hostels, etc.

Among public authorities, it is fully shared that safeguard plan will only be operational if data are fully faithful (telephone numbers, industrial toxics quantity, etc). Presently, this operational requirement is shown as a key argument to use safeguard plan not only in disaster situation, but also in everyday interruption of urban system.

In 2006, municipalities of Nantes and Lyon are the former local authorities to involve themselves in risk prevention and crisis management fields. They take the opportunity of propositions of Law 2004 on civil security about the possible application of safeguard plans in daily urban system malfunctions such as car collision, gas explosion, water network overflow, oil diffusion on road, garbage amassing, snowfalls, etc. This approach of a daily use of local safeguard plan is set on juridical justifications. It is shared by risk prevention managers in Nantes and Lyon. Moreover juridical position, an operational justification is given by local authorities to use a safeguard tool for normal failure to constantly renew data accuracy.

The municipality of Lyon has a specific administrative department for risk prevention, in an urban ecology unit. The headman of risk prevention department explains why safeguard plan must also be use for car collision : "*Yesterday, we had a big car crash, as it happened three years ago with a terrible German tourist bus crash. Even if it is not a flooding or any other major danger, there were victims. And we need an immediate public organization. Those who think that defense response is held in reserve for major danger should quickly turn their mind and be more flexible on definitions*" (Headman for risk prevention, Lyon municipality, April 2006 – traduced from French conversation by author). Risk prevention headman in Lyon municipality is slightly disappointed for possible loss of data and knowledge during normal accident. The proposal is to apply safeguard and defense ways or principles for daily accidents, which are normally solve by administrative procedures. Each accident is seen as a potential spring of new information to collect and to verify. In fact, he asserts that local

safeguard plan can provide a strong support for rescue during daily urban interruption and, furthermore, simple accidents play the role of exercises or tests to check defense plans accuracy.

This opinion on civil security drives a vision of urban scheme. It supports that a simple accident on urban system can grow to a crisis if it is not resolve at time. Especially, accidents on urban network (water, wastewater, road circulation, electricity, telecommunication, gas, etc) are supposed to be higher means of evolution to a global collapse of urban function. In this point of view, urban system is closely linked to the principle of constant flow in network services.

Efficient cooperation through crisis experience

Risk managers call for a collective involvement on civil security among every sector of public authorities. Beside operational justification, daily use of local safeguard plan is believed to create a "prevention culture". Fortunately, crisis procedures are rarely put to the test. This distinctiveness is very paradoxical because crisis management needs to be very well-organized. Communication, skills and coordination must be coherent. Thus, recurrent use of safeguard plans come within reach of a cooperation exercise between public authorities. Time dimension, space area or management during crisis situation cannot be compared with real methods for accidents. Nevertheless, risk managers argue that trying defense methods on simple urban accident produces an experience of cooperation indeed. In statistical questionnaire, 90% of municipalities present local safeguard planning as the opportunity to involve municipal administration in risk prevention (Gralepois, 2008a).

What about a shift to a lack of awareness in case of real danger? Risk managers deny any possibility. An elected representative in Lyon underlines benefits for municipal organization. He said : "*Our civil servants do not know how to act with each other. We want a common procedure, a widespread culture of security, for any accident and not only for major risks. Dangerous events management is part of everyday life*" (Representative in charge of civil security, Lyon municipality, November 2006). The possible loss of consciousness of danger is largely neglected compared with cooperation benefits. Gains are task synchronization, danger perception and acceptance of other professional habits. The elected representative of civil security in Lyon has a specific position. It is not widely shared among others delegates. In general, representatives are hardly involved in risk prevention. Civil servants are more concerned. They often consider crisis experience as the one better way to imply elected representative in civil security goals (Coanus, Duchêne and Martinais, 2004).

The headmaster of urban network department in Le Havre municipality is fully in the same opinion. Le Havre city is concerned by different flood risks (streaming, overflowing, sea submersion). Since recurrent terrible floods from 2003 to 2008, risk managers are convinced to learn from themselves and from the other ones at every flooding. The headmaster of urban network department explains: "*We can explain during hours how to organize human and technical means in front of a disaster, nothing worth*

more than a real-time crisis experience. When you are at 3 o'clock in the night, with your shoes in the flood, with people who want to be rescued quickly, with journalists who want to know precisely what will happen even if you do not know it… Here, you understand what it a crisis and how to manage" (Headmaster of urban network department, Le Havre municipality, December 2006). His very physical story describes the flood as a turning point for awareness and consciousness of risk management. His discourse also agrees with a recurrent use of safeguard to experiment cooperation in usual circumstances.

Local safeguard plan, an instrument to reinforce institutional position

Although civil protection means of action were largely under-estimated during past twenty years in France, it is today responsible for crisis management and its new instruments implementation. For the first time, modernization Law of civil security in 2004 clearly sets the leanings of national theory and operational doctrine. Many local civil servants in charge of civil security have seen an opportunity to claim more means to Central State. Beside military security, international defense or nuclear security, civil protection is in a poor relation. Human resources, budget or computer technology are reducing in municipalities and Central State departments.

In 1996, municipal fire brigades moved to departmental authorities in France (4). Municipalities lost a precious local expertise on vulnerability and risk diagnosis (Padioleau, 2002). Consequently, civil security missions are nowadays mainly focuses on control, such as safety of public buildings or large group events (large open markets, festivals, etc.). They lack time and resources to take part in evolution of civil security goals. They surreptitiously wish that a recurrent use of local safeguard plan would highlight the gap between needs and means in case of disaster, but on minor events.

In civil security Laws, Central State is supposed to supply municipalities in case of danger if municipal authorities cannot manage danger themselves. But local officer of Central State -the prefect- is helpless. Prefectural administration also lacks human and technical resources. Difficulties in providing risk diagnosis or assistance for local safeguard plan weaken Central State legitimacy. On one side, Civil security law of 2004 clearly names prefectural administration as local responsible to set new definitions of the crisis, new tools and new governance. Prefects are believed to widen security culture and to aid municipalities to realize civil security instruments. On the other hand, they feel a sharp collapse of budget but also of institutional support which, according to questionnaires and interviews, does not allow prefects to assume their new responsibility.

Therefore, tensions and frictions rise up between municipalities and prefectural administration. Traditionally, on one side, Central State upholds territorial equity and decides a one-way setting for all safeguard plans. On the other side, local authorities fight for a local interpretation of operational tools, with a capacity of territorial adaptation. Municipalities deny control of Central State on local safeguard

planning if Prefect is not able to provide more resources. Prefect wants to keep authority on civil security policies at local level but its expertise is reducing in a twinkling of eye. This conflict is not proceeding on a political and public arena, but is largely negotiated on a technical and internal scene.

At the same time, another local authority takes advantage of the conflict of legitimacy between municipalities and Prefects. Intermunicipal councils (5) quickly offer to participate to civil security, in the fringes of the responsibility of municipalities and prefectures. Civil servants -who carry intermunicipal councils participation- propose to intervene on basis of institutional and juridical arguments.
Civil servants that hold an intermunicipal vision of civil security underlines the simple role of intermediary. Anyway, local safeguard plans stay implemented under the responsibility of mayors and then ratified by prefects. They propose to gather needed information, to help to write and to shape purely formal paper. This first point lays on a vision of a neutral and collaborative intermunicipal council that only gathers mutual interests.

In civil security policy, an accident or a disaster that lead to damages or even victims produce harsh controversies for legal responsibility between local authorities and Central State. Civil servants in intermunicipal councils guarantee their political and legal legitimacy to mediate. The role of intermunicipal council is clearly stated on several occasions in the law of modernization of civil security, particularly regarding the possibility to give a help in local safeguard planning. The law also recalls some legal responsibilities that municipal authorities have already been transferred to intermunicipal councils, especially in urban network utilities (water police, hygiene, environmental pollution...). In urban network domain, intermunicipal councils have responsibilities in services continuity, such as drinking water, garbage collection or transport flow. When an accident stops urban network continuity, intermunicipal civil servants propose to experiment systematically local safeguard plans. Nevertheless, municipal authorities stay careful about intermunicipal participation, because instructions from Home Affairs Minister are still unclear. Elected representatives are reluctant to organize urban network services on intermunicipal level. An opened consciousness has gradually risen since heatwaves of 2003, influenza of 2004 and H1N1 in 2009 (Ali and Keil, 2006).

The institutional and juridical legitimacies of intermunicipal councils are not fully accepted among civil security authorities (Gralepois, 2008b). But, the lack of resources in municipal and prefectural administrations helps to increase of intermunicipal participation. Human or technical resources of the two lawful authorities drive this opportunity. Even so, it strengthens intermunicipal councils in local governance. In the three cities, elective representatives were surprisingly unanimous on intermunicipal involvement. In general, civil security issues are rarely set on political agenda. Except some representatives passionate by technical debates, decision-making process in risk protection and crisis

management is held in a small administrative arena, tinged with a speech technician and manager. In the meanwhile, goals are so tiny and technical rather than very collective and political.

NON-STOP FLUX CITY

Whatever Central, intermunicipal or municipal interpretations, the study shows an intense vision of a "just-in-time city", in which no urban system failure can happen. Local safeguard plans in case of disasters are grounded in the image of urban circulatory system, where every break in flows of goods, services or information is seen as a major disaster. Main danger is obstructing functional distribution.

The recurrent use of local safeguard plan for any urban accident holds the idea of a predominance of urban systemic process. It is an operational step to a global vision. Civil security instrument is supposed technical and neutral, but it has a strong political implication. The current use of civil security tools for any urban accident tends to weaken the distinction the incident (event limited to a small area and handled by public authorities), disaster (unforeseen major accident that need an exceptional organization) and crisis (uncontrolled disaster that leads to question the government). When there is no definition, in a social context, between "minor" or "major" danger, any accident becomes a potential disaster.

In the 1980s and 1990s, systemic approach of risk focuses on events occurrence and hazards consequences in space or in organization, such as indirect effects (Dourlens, 1988 ; Lavigne, 1988 ; Chaline et Dubois-Maury, 1994 ; D'Ercole, 1994 ; November, 1994). Little attention is paid, in sociological state of art, about political responsibilities and urban evolutions at local level, except metropolitan studies of vulnerabilities emergence (Pigeon, 2005 ; Reghezza, 2006). Recent studies in social sciences about urban resilience largely concentrate on assessment and estimation (Somers, 2009). Does a systematic use of civil security instruments, to adjust urban space running, imply specific representations of city?

Urban network collapses, potential space of vigilance

Even if an accident occurs, initially as a localized incident and manageable, civil servants -who hold the necessity of a current use of local safeguard plan- perceive a possibility of catastrophic event. Tools of civil security must even frame incidents. This opinion points out a practical vision of "territories vigilance". For instance, in Lyon, civil servants of civil security make use of local safeguard plan for leakage of gas, in prevention of potential explosions and fires. In Nantes, local safeguard plan helps to handle pollutions due to lack of house connections in public sewer network.

This attitude is not an application of principle of precautionary –i.e. when an action or a decision is not taking if there not enough proofs on suspected risks of causing harm to the public or to the environment. On the contrary, it reflects a « vigilance setting » (Roux, 2004). The recurrent use of

local safeguard plan suggests more of a posture watchfulness and alertness. This attitude draws a low warning signals attention, especially in urban networks. Any momentary blockage becomes a test of reactivity and awareness. Jacques Roux calls it « subtle operativity » or « casual alertness », i.e. maintaining rapid response capacity in situations of apparent calm (Roux, 2006).

As an example, a ten centimeters snowfall covers Nantes in December 2005, during a famous regional music event. Even if the snowfall was not abnormal, it caused the congestion of traffic (roads, walkways), but also, by extension, economic and cultural exchanges (spectators were in traffic jam). Prefectural administration organizes a crisis command post, because snowfall consequences were beyond municipal authorities resources of action. For civil servants, it is concrete example that little snowfall hazard has to be handled with real civil security instruments in order to avoid crisis situation evolution. Since this unprepared situation has occurred, civil security servants in Nantes have established a new procedure for mobilizing logistics instruments in crisis. It is a software tool for locating, coordinating and sharing, in real time, human and technical resources. The goal is to provide, if needed, a procedure to shift from normal accident procedure to crisis management. This constant possibility permits to “keep awake” in daily professional life, said civil servants. It helps to learn to manage with no panic. This attitude of vigilance does not make substantial, but sizeable difference between accident and disaster.

A general attitude of constant awareness leads to two political and social consequences. First, when each obstruction in urban network can become a potential disaster, the concept of network exchanges prevails over real supply public services. In a word, recurrent use of local safeguard plan seems to preserve urban connections more than citizens and goods. It protects more the exchange in itself (traffic flow) than its purpose (production, distribution, consumption). When the vision of city as a circulatory system is added to an invariable vigilance method, "*the power of flows takes precedence over power flows*" (Castells, 1998: 575). The use of local safeguard plan for any accident embodies Manuel Castells’ vision of a city as a “space of flows”.

Then, permanent wakefulness on urban incident leads to relativism major risks. Christine Dourlens and Pierre Vidal-Naquet affirm that the great interdependence of material and immaterial components of global urban networks requires a general surveillance, because every element is connected. If the diffusion of new information technologies makes global awareness possible, it underestimates dangers because “*everything can be monitored*” (Dourlens and Vidal-Naquet, 1987: 402-403). When any obstacle in urban circulatory system becomes -socially and politically- unbearable and unacceptable, the role of city moves away from its ideal of security and social links. Its looks like more to its negative image of space of social control.

Urban system control

In a way, recurrent use of local safeguard plan does not only tend to prevent accidents. It also avoids determining what a danger is and what is not. Public authorities keep away from collective debate on what is an acceptable level of danger in a society. Automatic handling of incident on urban networks reflects an image of “urban system control”. Michel Foucault makes a strong difference between security and discipline. Security space refers to instantaneity and random. He states that security policies tend to organize a series of possible events, in a multivalent and transformable context. When discipline tries to control and forbid some social behaviors, security policies foresee and organize so-called disruptive elements (Foucault, 2004). For example, civil servants also pledge to use of defense instruments in case of social strikes.

Many elements of this urban network control refer to objectives of "Resilient City". The term "resilience" is used different contexts (whether for psychology attitude or for materials) to express the skill of a system to keep on running, to maintain a stable state, its following a disturbance (Hollnagel, Woods and Leveson, 2006). In urban approach, resilience is territorial weakness, but also a degree of resistance, that permits to cope with risks (Reghezza, 2006). In a way, the civil security approach accepts -even encourages- submitting urban system to minor shocks, as a training to return to normal exchanges as quickly as possible.

Resilience does not offer a new paradigm. It is not a reincarnation of sustainable development concept rather than a rebirth of 1970’s paradigm of strength and independence of technical system. Concretively, the regular use of local safeguard planning for urban incident illustrates the evolution from risk reduction to risk mitigation in French middle-range cities.

CONCLUSION

The study of concrete implementation of local safeguard plan at municipal level, since modernization Law of civil security in 2004, highlights how operational objectives can draw a political vision of urban space. From a technical point of view, efficiency of local safeguard plan lays on constant data updating. Everyday use permits to exercise civil security instrument and to test cooperation between civil servants. Regular use would provide a scalable and sizeable security tool that can be deployed from incident to crisis.

The regular use of local safeguard plan is also a mean for institutional demand for legitimacy. In general, exercising civil security instruments on minor accidents underlines the lack of budget, human and technical resources among public authorities. More precisely, the lack of means in municipalities and prefectures provides a window of opportunity for intermunicipal responsibility in civil security policies. Based on juridical and pragmatic arguments, some civil servants hold the idea a new role for intermunicipal councils in civil security. Between municipalities and Central State, intermunicipal policies aim to gain legitimacy in supporting a systemic approach of urban risks and territories.

Intermunicipal policies spread the idea of potential crisis in any urban accidents among institutional arena of good practices on risk management. The more intermunicipal policies emphasizes the key role of urban networks and territorial interdependence, the better they name themselves to organize safeguard planning.

The vision of daily use of civil security instruments for urban incident reflects an image of "city system", as an area of just-in-time exchanges. In this system, main danger will be flows stop. To sum up, this vision does not reflect an economic and social agreement on collective definition of risks and dangers. It supports a vision in which city exchanges are a prerequisite for urban development.

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[1] Loi n°2004-811 du 13 août 2004 de modernisation de la sécurité civile

[2] Civil Security is largely different from home security, which deals with criminality and social disorders.

3 Two categories of municipalities are designed : the first is composed of municipalities implied in a natural or technological risk prevention plan in urban planning, i.e. a map zoning outbuilding areas in cities. The second category is based on municipalities concerned by industrial rescue plan, i.e. crisis management organization organized inside highly dangerous plants.

4 Loi n°96-369 du 03 mai 1996 relative aux services d'incendie et de secours.

5 Public institution composed of several neighbouring towns that agree to delegates fields of responsibilities to the intermunicipal council, such as urban planning, economic devolvement, local public utilities…