

How to make a city safe?

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Improved flood prevention and protection

The safety and security situation of cities changes constantly. What relevance for cities do incidents have that are relevant for civil protection? How the people in charge get the required basis for planning and decision-making is shown on the Safety and Security Reports of the City of Lucerne. From this approach all cities can benefit.

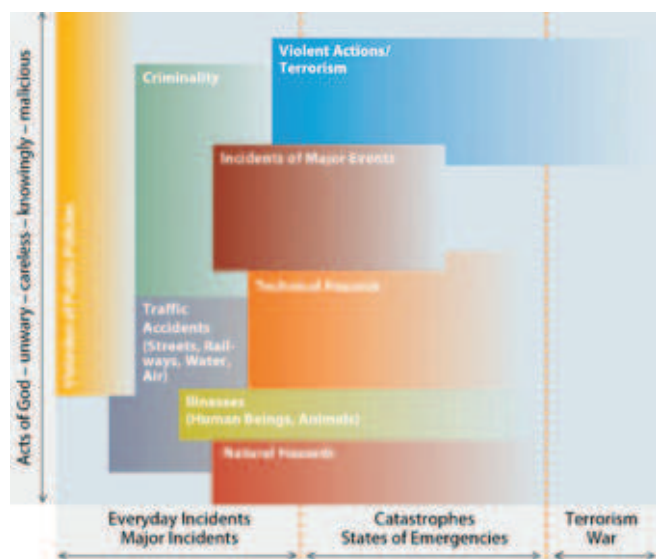
The last six months were affected by catastrophes: Extreme floods hit Eastern Australia while the Western part suffered from massive drought. Tornadoes of unknown power devastated parts of the U.S. Then Japan: earthquake, tsunami, nuclear power disaster. Looking at these incidents from a city's perspective it quickly becomes clear: Cities are unable to cope with such catastrophes and comparable states of emergencies. Even bigger communities like states with their crisis and emergency response organizations arrive at their limits. But it is the cities that are directly affected by such incidents. It is their population, it is their infrastructures and key assets which get damaged or even destroyed.

But looking at last month's local headlines, for cities other hazards seemed to be more important: Criminality for instance or violence in public spaces. Is it right to address primarily hazards that one will find in the local headlines in the newspaper? Wouldn't it be necessary that a city also addresses hazards with a low feasibility of occurrence but that result in huge damage? That was a question the city of Lucerne was dealing with. They received their answers in two Safety and Security Reports.

Breaking new ground

Some years ago the safety and security department was convinced: A Risk Management was needed for the city of Lucerne. It would be the only way to get the city prepared for the relevant challenges in the context of safety and security. So the head of the department decided in 2005 to compile the first comprehensive Safety and Security Report for the city of Lucerne.

An integral, risk-based approach should be the basis for this report. Until now there is no other city that has chosen such an approach to assess their safety and



Overview of relevant hazards for Lucerne



High-pressure gas pipeline on the edge of town

security issues. The methodology that was chosen is appropriate not only for cities of the size of the City of Lucerne with currently nearly 80,000 inhabitants. Designed for specific needs, it could be appropriate for all cities, towns and even small communities which need solid information for their planning in terms of safety and security.

A multi-level approach

The Safety and Security Report was compiled in different phases to cover the full spectrum of relevant hazards; at first it was necessary to bring together the main players in the fields of safety and security. A working-group was founded. Representatives of the police, firefighters, the social services department and the city's operational headquarter met with each other. It was a very heterogeneous group and the assessment of the safety and security situation for the City of Lucerne was quite inconsistent. Also the understanding of the member's roles and their organization in terms of safety and security differed strongly. But the working-group came to an amicable result; a comprehensive catalogue of all relevant hazards was defined. It ranged from violation against the rules in public spaces over criminality to natural hazards, pandemics and even terrorism.

This catalogue was a helpful overview. But the assessment of the meaning of the different hazards for the City of Lucerne was still missing. So for the next step the project team interviewed experts from the city and also from a cantonal and the national level. How many chemical plants are located in

the city? In which way did the rate of robbery increase or decrease over the last couple of years? Which steps were taken against flooding? The result was a detailed assessment of the situation of every relevant hazard.

The interviews were also a good chance to find out, which measures could be taken to diminish hazards. So another catalogue was compiled. Using an efficiency analysis it was possible to find out the measures which are indeed appropriate. Criteria as cost, acceptance of the population or the sustainability of the impact were applied for this analysis. In the end about 50 measures were recommended. Some examples: a checkup of public buildings in terms of their vulnerability to earthquakes, a training for policemen on how to deal with the rising violence against themselves or a new weir for the Reuss River for better protection against flooding. Until now most of the recommended measures are implemented by the city's safety and security manager.

The judgment of experts and the use of objective criteria is an important aspect to display the safety and security situation in a city like Lucerne. But it is not sufficient to decide where the next steps in the communal safety and security planning shall be taken. If the population feels insecure in a special public space, this assessment has to be taken seriously; even then, when the statistics say that this space does not differ to comparable places. For these reasons, a public questioning was established to find out more about the subjective assessment of the safety and security situation in the City of Lucerne.

Hazard-analysis, assessed measures, the results of the public questioning and also recommendations for risk management of the safety and security department – they all together framed the Safety and Security Report of the City of Lucerne.



Gas storage facility Thorenberg in close proximity to a residential area



Lucerne, the biggest town in Central Switzerland

Safety and security change constantly

But the report did only display a snap-shot of the situation of 2006 and 2007. Safety and security – particularly in urban spaces – are very dynamic. There are changes and developments such as increasing mobility, the impact of modern information and communication technologies, or a population which is getting older and feels insecure more easily – three examples that show the constantly changing safety and security situation. Because of that fact, the Executive Branch of the City of Lucerne enacted a screening process to assess the situation every three years.

2010 the first update started. The working-group which was mentioned before came together once again to check if there were any changes concerning the safety and security situation. The group was extended to representatives of private organizations: the local public transport company, a private security company and an organization of Lucerne's neighborhoods sent experts who joined the working-group. The people in charge had realized that not only public entities are responsible for creating safety and security in a city. In addition to that it was the same members that had already come together three years ago. This provides evidence that the members were convinced by the chosen risk-based approach. During the next months something became obvious: In the City of Lucerne a "safety and security culture" had been developed and cultivated. The different players knew each other and their needs. If an incident were to occur, they would know with whom they would have to talk to. That seems to be a sound approach. Not only to cope with hazard but also to prevent them.

A differentiated basis for planning and decision-making

Today the City of Lucerne possesses an updated overview about the relevant hazards at its disposal. And the people in charge can estimate where they should assign priorities. The Safety and Security Reports helps to make the right decision within a constantly changing safety and security situation. Lucerne has chosen an approach, which is appropriate to its size, to its function as a center, and to the great variety of challenges in terms of safety and security.

But the approach and its methodology can be varied in broadness and depth, so that they are suited to the needs of all communal entities. To get back to the question which was mentioned at the beginning of this article: Amongst others a Safety and Security Report provides a basis for decision-making to check if it is appropriate to focus within a city for instance on safety and security aspects in public spaces or if it could also be useful to think about the outcome of catastrophes and other disaster with a high potential of damage.

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The Safety and Security Reports can be downloaded (available only in German language):

Safety and Security Report 2007:

<http://www.stadtluzern.ch/de/dokumente/publikationen/welcome.php?action=download&id=27629>

Safety and Security Report 2010:

http://www.stadtluzern.ch/dl.php/de/4c7cb22d605e2/310810_Sicherheitsbericht_2010.pdf