

Twin –City Cooperation and International Assistance in Emergency Situations

Case Study: Cyanide Pollution and the Great Flood on River Tisza, Szolnok, Hungary, 2000

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Introduction

International relations and co-operations of a city, especially the twin-city arrangements are mostly based on the initiatives of the civil sphere, although the frameworks of the co-operation are usually provided by the local assembly of a municipality. In the long run, only those relations prove to be effective in which the citizens, the educational, social, cultural institutions, civil organizations, undertakers, etc. actively take part. Contacts between citizens of EU Member States, candidate and other foreign countries help to spread information about the different cultures, the possible ways of co-operations including communication and mutual help in case of disaster situations, too.

Consequently, it is of vital importance that international relations have their right place and emphasis in the life of a city. If well-developed, cross-border co-operations can cover almost every aspect of the life of a city including economic, cultural, sports, social, civil, etc. areas, thus, if purposefully used, can contribute to a great amount to the exchange and sharing of information, knowledge and experience in these fields. In addition, in extraordinary cases like natural and other types of disasters the already well-functioning twin or other kind of international relations can be of outstanding value providing direct contacts to policy and decision makers in the given local authorities.

Natural disasters do not respect country borders or any kind of limits set up by the human kind, thus international co-operations have outstanding significance in connection with disaster management. On the other hand, such co-operations are also the vital interests of any country in the world, which might face disasters of any kind.

It has also been proven that disaster situations cannot be handled by the traditional methods of diplomacy. In urgent and dangerous situations there is no time for diplomatic exchange of notes, experts with decisive power are needed to interfere at local, national and also international level. In this case, direct contacts, the formal and informal knowledge of the systems and structures of the given city international relations or partners are essential and in many cases are great contributions to the solution of the situation.

Szolnok Town of County Rank

Before presenting the two great disasters – cyanide pollution and flood on river Tisza in 2000 - as experienced in Szolnok Town of county rank, let me introduce the town and its international relations.

Szolnok is situated 100 kilometres east of Budapest (Hungary) at the oxbow of the river Tisza and Zagyva and is a meeting point of the Hungarian Great Plain's waterways, railways and overland routes. The town has nearly 80.000 inhabitants thus being the eleventh largest town in Hungary. Szolnok is blessed with remarkable natural endowments: fertile soil, thermal water and a high number of sunny hours. Agricultural machinery production, food processing (flour mills, bakeries, dairy plants) are outstanding and look back to several decades of tradition, as well as rolling stock repair, chemical industries (detergents, pigments) and paper production. It is also a cultural, tourist, educational and health centre.

In the last ten years the international co-operations of Szolnok have been broadened quite successfully. Besides the traditional, 31-year-old and thus very-well functioning twin-city relation with the city of Riihimäki in Finland (which was also supported by the government before the change of regime) we signed a twin-city agreement with the city of Reutlingen (Germany) and the city of Baia Mare (Romania) in 1990, respectively.

In addition to the very intensive Finnish relations, the German twin-city co-operation is one of the best functioning and most intensive co-operations of Szolnok. There are approximately 30 educational institutions in the town and almost all of them have their partner institutions in Reutlingen. We lay great emphasis on the student exchange programs which have become outstanding throughout the last few years: in the year 2000 there were approximately 500

German students taking part in student exchange projects coming to Szolnok and about the same number of students from Szolnok visiting Reutlingen.

The twin-city relations with Baia Mare (Romania) have greatly contributed to the intensification of the common cultural projects and have always been very successful concerning youth, sport and educational exchange programs. It has also helped in the handling and finding solution of a great environmental pollution problem. In the year 2000 the cyanide pollution of river Tisza originating from a company near Baia Mare threatened the settlements along the river and meant extremely great danger to the citizens of Szolnok. The already existing, very good relations with the Municipality of Baia Mare contributed to a great extent to the effective communication between the two cities and created the basis for a wider co-operation in the field of environmental protection (EU Environment DG), as well.

In 1995 the twin-city agreement with Bielsko-Biala (Poland) was signed and since then we are in the process of forming new relations – finding partners for schools and other cultural, social institutions. We have regular exchanges in sports and have organized a common art exhibition form the works of contemporary artists in Bielsko-Biala and in Szolnok.

The young twin-city relation with the city of Forlí (Italy) (twinning charter signed in 1998) is a very dynamic and promising co-operation among our international relations. Besides the already well functioning educational, cultural and sports exchanges there are many new aspects of co-operation to be realized. New goals and aims have been determined in the year 2000: the already-existing partnerships should be broadened, further educational, cultural, social and sports contacts have to be formed and great emphasis should be laid on co-operation in the field of economy.

The youngest twin-city relation of Szolnok was created with the city of Shoham (Israel) in 2001. During this relatively short time there have already been educational and cultural exchanges between the two cities. As this relation does not look back to a long tradition, there are many new opportunities in creating different kinds of co-operations in the future.

Other strategic co-operations of the city are as follows:

- Hasselt (Belgium)
- Perigueux (France)
- Rakvere (Estonia)
- Rybnik (Poland)
- Yuza (Japan) (twenty-year-old relation)

The Black Months of the River "Yellow Tisza" (February-March, 2000)

The contamination that the River Tisza suffered at the beginning of February, 2000 caused the most unfavorable water quality of ever, endangering the intake works based on the river, damaging the flora and fauna. The contamination deeply shocked the population living close to the river as well as the specialists dealing with the living world of waters all over the world, making them express their opinion in an extremely varying way. The cyanide, just like the contamination of heavy metals, arrived from the upper tributary basin of the river Tisza, close to the city of Baia Mare (twin-town of Szolnok), the mining region of the Eastern Carpathian Mountains of Northern Romania.

According to the official report received by the Upper-River Tisza Regional Authority of Environmental Protection, this was an event threatening with environmental catastrophe: on 30 January, 2000 the dam overflowed and washed away a stretch of embankment wall 25 meters long and 2.5 meters deep. Approximately, 100,000 m³ of tailings water, containing cyanide, began to flow into the nearby Lapus River, then traveled downstream into the Somes and Tisza rivers into Hungary before entering the Danube. Following the announcement, the environmental, water protection, emergency response and local authorities of the Tisza region were mobilized in order to cope with the disaster and make protective measures.

From the standpoint of Szolnok the most important task was to ensure the steady supply of drinking water. The town of Szolnok had seven days to take the necessary steps based on the results of the water tests at the upper regions of the river. Based on the tests of the water samples brought from the upper Tisza region it was assumed that the water works might be able to manage the cyanide concentration under 2 mg/l. The daily need of water for the 120,000 people living in the seven settlements supplied by the water works of Szolnok is 30,000 m³. However the storing capacity of the water works does not exceed 10 thousand cubic meters. Besides this, the continuous water supply of the institutions had to be considered, too.

The expected depletion of the storing capacity from the excess consumption was a separate difficulty for the operator of the water works. The inflow of subsoil water into the network had increased the danger of infection to a large extent. Based on the results from the upper river regions a 10-hour period had to be considered when the cyanide concentration of the water might have exceeded the critical limit value. On the day before the peak concentration the water works warned the inhabitants to store water in order

to avoid the lack of water during the critical period. The above measures proved to be effective, the inhabitants followed the instructions and warnings provided through the media and as a consequence the critical period passed without significant events. The water supply was shut down at the water works for a period of 8 hours and the large water works of Szolnok stopped its activity during the period of the flood of the contaminated water. All things considered, the local, regional and national authorities managed this disaster situation successfully.

International Cooperation

First of all, it is obvious now that the co-ordination among organizations involved in the emergency response was exemplary; the procedure was managed with mutual recognition and professional esteem. The cyanide pollution – accidentally originating from one of the twin cities of Szolnok - showed an outstanding example of international co-operation both between municipalities and other types of international organizations. The eventual, already existing municipal relations between Szolnok and Baia Mare made the management of the situation significantly easier and more successful. Some of the main points of the co-operations are listed below:

- Direct contact between the Mayors of the two cities was of vital importance in having immediate and exact information about the situation
- Direct contact with the agencies responsible for environmental issues in Baia Mare and the region – meaning direct source to certain information - needed to assess the situation
- Very good cooperation in managing the overwhelming information needs and requests of the media from both cities
- The opportunity to visit the gold mining site by the Mayor of Szolnok in 2001 and discuss further possible environmental cooperation between the two cities in 2001
- Creating a closer cooperation between the two cities in environmental protection and issues related to environment: joint application for environmental funds in 2003
- In sum: strengthening the cooperation and mutual confidence between the two cities
- The local authorities of Szolnok managed successfully the following tasks:

- Multilateral negotiations between the EU Commissioner Margot Wallström, the Hungarian and Romanian Minister of Environmental Protection
- Meetings with USA Ambassador to Hungary and USA Ambassador to Romania who arrived to investigate the impact of the disaster
- International press conferences and live interviews on the situation in the English, German, etc. radio stations
- After the pollution: programs for different professional delegations investigating the consequences of the cyanide pollution

Concerning this disaster on river Tisza there are some points, which were unusually difficult to handle:

- The management of the information flow caused a considerable amount of trouble and it seems that some kind of improvement is needed. The large number of those requiring information, the lengthy way of data recording, the transfer by fax and the translation work (lack of time) for the international organizations and media caused some problems. The recording of the incoming data and reports, the administration of the documents created a lot of extra work; a lot could have been saved by a much better organized electronic data transmission system
- Another new element of the emergency work was the permanent presence and extraordinary information demand both by national and international media. The need for information made it necessary to ensure consistent and permanent news service. The daily 'attacks' of American, Australian, English, Finnish, French, German, Hungarian, Polish, Romanian, etc. media made the situation extremely difficult and pointed to the necessity for setting up the international spokesman function within the municipality. The effectiveness of PR activity, "utilization" of the attention of the media, and the strengthening of the common knowledge greatly contributed to the overall regional and international attention which helped a lot in utilizing international help.
- A further element, which should be paid attention to is the practical task of coordinating the assistance from international organizations and twin-city partners.

It is necessary to mention - as a lesson of the events - that the competent organizations have either no or very little possibility to interfere in case of similar disasters. Their scope of activity can cover the prevention of

secondary effects but there is no way for them to prevent such type of disasters. That is why the prospective international support should be on the establishment of early warning systems, prohibition of potential sources of contamination and the moderation at the time of occurrence of such events.

Great Flood on the River Tisza – April, 2000

During the spring of year 2000, Szolnok experienced the greatest flood in its history: on the 19th of April the river Tisza topped at 1041 cm at Szolnok. Due to the local, national and international co-operation it was possible to keep the river in its basin and the city could avoid catastrophe. The embankments and dams however, were greatly destroyed by the extraordinary flooding and reconstruction work – the reinforcement of the dams - had to be done as mitigation work for a possible next flooding. Number of persons taking part in the immediate flood prevention work on the dams along the river in the region was 13,328. Approximately 7,5 million sand sacks were used to reinforce the dams.

The flood on river Tisza in the year 2000 – especially so close after the cyanide pollution - raised significant international attention and consequently a great amount of international aid arrived in the country. In the course of the flood protection work along the river, due to the excellent international relations altogether 2 000 000 sand sacks could be transported to the most dangerous places, and in the next 6 days 5760 000 pieces of them were transported to our country. We can really state that international cooperation was far beyond expectations. Direct help was coming from Ukraine, Poland, Czech Republic and Slovakia.

The international help received by Szolnok is listed below:

- US Government assistance in response to Tisza River flood: the US Government – and individual American citizens – joined forces with the citizens of Szolnok to take emergency measures against the devastating flood of the Tisza River. The contribution of the US government totalled US \$ 245,000. The US Military, through the Office of Defense, provided the largest portion of this assistance – including costs of transportation, approximately US \$ 220,000. The other part of it came through USAID. The donation included sandbags, generators, chain saws, tents, blankets, sleeping bags, rubber boots, waterproof clothing, isolated food and water containers.
- Due to the flood, the embankment around Tiszaliget, which is the largest contiguous area of Szolnok, was significantly injured.

Besides the nearly eight billion HUF investments, there are sports fields, sports halls, a swimming pool, youth and tourist centre, etc. in this area and it is said to be the ‘lungs of the city’. The reinforcement of the dam became inevitable. To be able to conduct this work the Municipality of Szolnok received 342,000 CHF from the Swiss DEZA with the arbitration of the Hungarian Embassy to Switzerland, the Hungarian Disaster Prevention Directorate, the Swiss and Hungarian Red Cross and the Swiss Helvetia – Hungaria Association.

- Szolnok received transports of donation (containing sand bags, disinfectant) coming from some of the twin-cities and also financial support from foreign private persons.
- In addition, the Jász-Nagykun-Szolnok County Disaster Prevention Directorate received the following international help:
 - Polish fire brigade forces: 93 firemen
 - Belgian fire brigade forces: 8 firemen
 - German fire brigade forces: 10 firemen
 - Slovakian fire brigade forces: 40 firemen
 - Ukrainian fire brigade forces: 37 firemen

During the flood protection work the coordination of international donations and emergency forces was a great challenge for all participants. In addition, the PR and communication tasks regarding the interest of the international media also needed rapid reactions and professional management of information flow.

Conclusion and Recommendations

Local experience in managing disaster situations shows that besides the usual participants, it is highly advisable to set up an ‘international operative team’ within the given municipality. It can make significantly more manageable the international aspects of emergency response at local level. There are some points listed below to which special attention should be paid:

The international team should consist of professionals/civil servants who

- have previous international experience;
- are fluent in English and/or an extra foreign language;
- have previous experience in handling international media;

- have previous experience in organizing international bilateral/multilateral negotiations with special appreciation of possible diplomatic tensions that can originate from a certain disaster situation;
- have strong IT skills.

Tasks which should be conducted by this international team are:

- Logistics: coordination of incoming international aids and donations (custom procedures, storage, distribution, etc.)
- Managing the contacts with international media (international press conferences, spokesman function, live interviews, reporting)
- Logistic arrangements for international emergency personel (accommodation, meals, etc.)
- Management and coordination of aids and projects aiming to help with the reconstruction works after a certain disaster
- Management of information flow: chief of team should be present at the main meetings of the participating local disaster management organizations
- Generation of collective, IT supported knowledge and data
- Sharing of international experience through IT support: Total Knowledge Management System