

## ***A Reflection on the Tianjin Explosions***

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The issue of realizing the right to information is far greater than one hazardous substance.

*Baskut Tuncak, UN Special Rapporteur (2015)*

The shocking series of explosions at a hazardous goods warehouse occurred at the night of 12 August 2015, but since then Tianjin have been gradually disappearing from our sights. Today, in the destroyed area, new lawns have been laid and the deadly scene of the catastrophic explosions is less visible. While environmental disasters tend to capture our attention in their immediate aftermath, reflective thinking is nonetheless important in order to prevent such disasters from happening again in the future. Looking retrospectively, it is argued here that the lack of transparency and strict monitoring of dangerous substances are the key factors behind the Tianjin tragedy that resulted in hundreds of casualties, immeasurable economic loss, and — though difficult to assess at the moment — environmental impact as well.

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In China, management of dangerous cargo includes two major phases: pre-operation approval and operation monitoring. The approval process includes both safety assessment and environmental impact assessment. According to the *Operation Conditions and Technical Requirements of Dangerous Chemical Business* issued by the State Administration of Work Safety, large and middle size dangerous chemical warehouse shall be built at least 1000 metres away from public buildings, main traffic, and other enterprises.

The exploded Ruihai Warehouse, storing thousands tons of hazardous goods, including 700 tons sodium cyanide, a highly toxic chemical substance, is only 600 metres away from its nearest residential area. While one company refused to make safety assessment reports for it, worrying about the short distance might make the project unable to get approved, Zhongbin Haisheng Company took the job and made the safety assessment reports which were successfully approved by several levels of government agencies. There could only be two reasons for this, as Professor Luo Yun at the China University of Geosciences explains – “Ruihai Warehouse provided inaccurate information of distance and the amount of dangerous goods, however all assessment companies need to make onsite investigations, so it is impossible that they could not know this; or the assessment company wrote a false assessment report.” The Professor of Safe Engineering, also told the *Beijing Youth Daily*, “Except assessment entities, it is rare that anyone will really check if the safety assessment report is false, therefore false report will not be easily known to the public at all.”

Besides safety assessment, environmental impact assessment (EIA) is also carried out for Ruihai Warehouse. During the two rounds EIA public consultations, respectively 130 and 100 questionnaires were handed out for public participation, and the EIA brief report was also presented in a local newspaper, on the Internet, and onsite. No comment was received during the public presentations of the project and the questionnaire consultation has shown that 100% of the public considered that the project location appropriate. It is difficult to know besides these 230 people, whether the public, especially people living nearby, were provided sufficient information of the potential risks that the warehouse poses. Or were the risks explained clearly enough for the public to understand?

The zero public feedback except the questionnaires suggests that the public concern about the hazardous goods warehouse, compared to [anti-PX protests](#) in the form of

“*sanbu*” (to take a patrol) due to demonstrations not permitted in China in cities such as Xiamen and Dalian where tens of thousands of people took part in, was surprisingly very low. It is doubtful that people think a hazardous cargo warehouse, storing highly toxic chemicals, less dangerous than the PX chemical plant. Presumably, if without the explosions, most residents would have never been aware of their dangerous neighbour. [“No one told us there were chemicals here”, residents near the blast site told reporters.](#) The shocking truth is, most residents living nearby only started to know of their dangerous neighbouring warehouse after being injured by shattered windows caused by the blasts.

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Undoubtedly, workers of the warehouse are the most vulnerable given their high-levels of exposure to the dangerous goods. In the situation of Ruihai Warehouse, even people who dealt with the chemicals everyday were kept in the darkness. “I don’t know what chemicals I am transporting, neither do I know if they are combustible”, a driver of the transport team in charge of loading chemicals for the warehouse told [Beijing News](#) reporter, “There is no formal safety training; occasionally the team lead gives us a few talks.”

There is also inadequate regulation of the warehouse during its operation. It was estimated that the amount of sodium cyanide stored onsite was 70 times more than its permitted limit. How could the safety monitoring authority allow this if there had been strict regulations of all the goods in transition via the warehouse? Was there information disclosed about these over-limit chemicals? Moreover, with regard to Ruihai Warehouse, as a dangerous cargo warehouse, it is *de facto* regulated by quite a few government authorities at different levels and ranging from Communications, Safety Monitoring, to Maritime departments; nevertheless until one week later after the explosions, government officials have not clearly answered which authority was responsible for regulating the Ruihai dangerous cargo warehouse. The various vertical, territorial and lateral regulation system has *de facto* resulted in the scenario of “*sanbuguan*” that no one really regulates.

The lack of information disclosure also happened after the explosions. While availability and accessibility of information on toxic substances are essential to prevent and mitigate disasters, for instance, the amount, categories and character of chemicals stored on the explosion site are crucial for firefighters to understand what

measures to take to extinguish the fire. Unfortunately, among the casualties of the explosions, most are fire fighters. While we mourn for the passing young lives, it is rather doubtful whether they were provided sufficient information of the chemicals stored at the explosion site, both before and immediately after the first blast, and whether they were given adequate and complete trainings to fight fires caused by highly toxic chemicals.

Government information disclosure after the tragedy was also inadequate, unclear and inefficient. On the one hand, the authorities issued guidance that the Tianjin Explosions reports must follow the official *Xinhua News*, and news and images about the explosions be removed from headlines and recommendations; on the other hand, information disclosure of the explosions from the authorities and official news channel is neither timely nor sufficient. A large part of crucial information was only acknowledged and publicly disclosed by the government when journalists started to expose such information and impose pressure upon government officials through questioning in press conferences, including the information of the highly toxic sodium cyanide, the death toll of firefighters who were not formal staff but contract workers of the fire brigade, and the political connections behind the Ruihai Warehouse. Moreover, some of the disclosed information contradicts each other. While it was said by an official that poisonous gas that affects people's neural system was detected on the blast site in an investigative program broadcasted by Chinese Central Television, it was soon denied by *Xinhua News*, claiming that other experts said that the saying about poisonous gas was a "big misjudgement".

On Tianjin explosions, the UN Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, [Baskut Tuncak](#) expressed that "The lack of information when needed—information that could have mitigated or perhaps even prevented this disaster—is truly tragic," and "Moreover, the reported restrictions on public access to health and safety information and freedom of the press in the aftermath are deeply disturbing, particularly to the extent it risks increasing the number of victims of this disaster."

Dangerous chemicals are toxic; however, it is the lack of transparency and ineffective monitoring from the warehouse's approval stage to its operation laid the breeding ground for the toxic risks to happen, and it is the lack of information disclosure after the explosions that made the disasters to magnify but not mitigate. From this perspective, the non-transparent and black box operation is as toxic as, or even more dangerous, than the hazardous substances themselves.

Like other large scale industrial disasters in history, the Tianjin explosions have rung loud alarm bells for us again. Looking beyond, how many more such dangerous goods plants and warehouses are there in China? How many of them were approved without effective public participation, and insufficient information disclosure? How many ticking time bombs must be defused before disasters like the Tianjin blasts happen again?

Sadly, two months after the first blast of the Ruihai Warehouse in Tianjin, a warehouse storing alcohol exploded, also, in Tianjin. Similar to the late eighteenth and early nineteenth centuries in the Western world, ever-increasing industrialization, including toxic chemical plants and their related chain industries, at the expense of the environment and human health has been happening unprecedentedly in today's China. Facing this situation, access to information is crucial for us to understand, prevent and mitigate the risks of toxic chemicals; and strict regulation is imperative in making industries operate within their safety ranges. It must be emphasized that information about the toxic risks of chemical plants and its related chain business must be made clearly accessible to the public, not only after demonstrable crisis emerge, but during its planning approval, daily operation, and during global transportation as well.

(Featured Image: credit to European Press Association)