

Water and disasters: Gathering competencies

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Historic drought in Australia, state of emergency for water in California, recent floods in Central Europe, not to mention the terrible earthquake in Sichuan, China and the cyclone that devastated Myanmar last year: natural disasters are sweeping our planet and their impact has shown how terrible and costly they are for the human race.

Natural disasters that include earthquakes and those caused by water like floods, droughts, tidal waves and tsunamis, avalanches and landslides. Certain crisis like armed conflicts can also be at the origin of disasters depriving civil populations of water supplies and sanitation like in Kosovo or more recently in Sudan.

An ever increasing number of disasters

It is a fact that the impact of these disasters has become significantly greater in recent years with a large proportion being related to water¹.

However, the media often tend to consider that the increase in the number of natural disasters is a consequence of climate change. We are obviously witnessing evolutions that we cannot always explain and that can play a key role in these disasters. Yet many – mainly those that have a human and material impact – are essentially due to Man's inconsistency and to the planet's demographic evolution.

So the distribution between natural disasters and disasters caused by Man is actually quite blurred.

To better understand the factors that lie behind disasters, the great global changes which affect our planet must be taken into consideration.

Demographic growth should lead to between 9 and 10 billion people on earth in 2050 while there were 2 billion in 1900 and close to 7 billion today. This leads to an increase of the population concentration in vulnerable zones and notably in the coastal urban areas, highly sensitive to water related disasters².

The growing concentration in mega cities – and notably of the poorer population who lives in precarious housing and shanty towns – contributes each year to more severe human consequences due to these disasters.

The degradation of natural mediums and of some ecosystems can also aggravate the impact of disasters. In Myanmar, the destruction of the mangrove which used to form a natural barrier, partly explains the damage caused by cyclone Nargis.

Dramatic consequences

The recent natural disasters that hit the world remind us to what extent they can be devastating. They are responsible for heavy human losses and considerable material damages. Hundreds of thousands of people die each year following these disasters or become homeless. In 2008, according to the UN's Secretary General, 236,000 people were killed by more than 300 disasters while another 200 million were directly affected with a material

toll reaching more than 180 billion dollars³.

Natural disasters no longer spare any continent, but Asia is particularly affected by these phenomena. 2008 was marked by two major disasters in this region of the world: cyclone Nargis which devastated the South of Myanmar with a death toll of 140,000, and the earthquake in Sichuan, China. The most severe risks are therefore highly concentrated geographically. According to the United Nations, the Chinese and the Indians belong to the world's most exposed populations to an extreme risk of natural disaster⁴. The international organisation also mentions Bangladesh, Indonesia and Myanmar as other countries where the risk of deadly disasters- earthquakes, cyclones, flooding and landslides- is the highest. Lastly, three countries alone i.e. Bangladesh, China and India account for 75 % of flood related mortality risks⁵.

These disasters also cause heavy economic losses which hinder the development of the affected regions and countries and disturb the balance of their natural medium by causing severe environmental damages. Developing countries suffer much more from the effects of natural disasters which can reduce decades of efforts to nothing in very little time. These natural disasters contribute to aggravate poverty in countries that are badly hit. Lastly, the death toll is much higher in developing countries compared to industrialised nations.

Limit the number of victims and damage.

Faced with such a situation, it's time to move from words to action. While natural disasters cannot be avoided, the high price paid in human lives and material damage is not a fatality.

The challenge consists in answering a simple question: how can we reduce the number of victims, material damage and the economic losses which hinder the development of the concerned regions and countries, disturbs the balance of the natural medium and aggravates the degradation of their ecosystems?

It is the international community's duty to reduce suffering today and take preventive measures for the future. It is its duty to propose concrete, sustainable and affordable solutions that can spare human lives and prevent colossal damages.

Aware of the seriousness of the disasters and of the urge to act, the High Level Expert Panel on Water and Disasters⁶(HLEP) was created in September 2007 by the UN Secretary General under the chairmanship of Dr Han Seung-Soo, the serving Prime Minister of Korea. This panel composed of twenty high level experts from the UN and other national and international organisations is steered by the World Water Council, the Secretariat of the United Nations International Strategy for Disaster Reduction and the *Japan Water Forum*. Thanks to the efforts and commitment of its members, this panel presented the action plan that resulted from their collective work and gathering of asserted competencies during the last World Water Forum in Istanbul.

This action plan called "Water and Disasters »⁷, proposes simple, concrete and easy to implement actions so that disasters are no longer just a fatality but that their prevention and management can also be the expression of a shared supportiveness between the citizens of the world.

This plan has two main objectives with urgent imperatives, as well as a list of actions to implement at the local, national, regional and global levels.

Improving prevention

This plan first emphasizes the need for disaster prevention and preparation measures. In other words, what we can do to improve knowledge, warning and forecast systems; what measures can be taken to mitigate the effects of a disaster. The need to mobilize all stakeholders before any disaster occurs is one of the highlighted imperatives. Governments cannot act alone even if it is their prime responsibility to mitigate disaster risks. The appropriate messages and measures must therefore be targeted towards all strata of society.

It is also paramount to establish a hierarchy for the information, prevention, warning and evacuation systems. Early warning systems must be designed so as to reach the population as fast as possible at an affordable cost.

Governments must also ensure that disaster risk reduction and adapting to climate change form an integral part of development planning and fit in within the scope of the fight against poverty. As an example, the resistance of buildings against disasters must be improved and notably in case of fresh or seawater floods.

Coordinate the assessment and emergency response

The second mission of this panel which fell more under the responsibility of the World Water Council, consisted in

improving the response to disasters and making proposals to ensure water supply and sanitation during and after the event. During this specific period, the number of deaths and sick people due to the absence or shortage of drinking water is in fact much too high to be overlooked.

Those who have worked on this topic know that there is room for a lot of progress both in terms of disaster assessment and rescue operations coordination. The first 24 hours following a disaster are decisive and it is essential that assessments be performed by experienced and responsible experts so that rescue operations can be organised with rigour and professionalism. We've all seen unsuitable materials sitting on some countries' airport tarmac as a result of poor assessments.

The coordination of rescue operations covered by a certain number of UN units and mainly OCHA, still needs to be improved due to the fact that with the growing coverage of disasters by the media, a large number of NGOs of all sizes go to the zones to offer their help to the victims. Hundreds and sometimes thousands of organisations from the world over come to bring their help and often without informing the country's concerned authorities beforehand. Ensuring coordination at different levels has become paramount to avoid repeating mistakes. Sometimes there is a form of competition or overlaps between the organisations which work against efficiency and have deplorable effects on the concerned populations. In this field, we need to strengthen sharing and capitalize on experience while developing, as upstream as possible, partnerships between UN institutions, NGOs, civil security organisations, national and local authorities, etc.

Rallying the emergency rescue community

Emergency water supply and sanitation in the event of natural disasters or armed conflicts imposes stronger actions and an increased cooperation on the part of the international community.

The World Water Council has a key role to play in this sector. Isn't it time for the Council along with the United Nations to publish a water aid charter for emergency situations that is opposable to all responders.

A think tank made up of water experts and humanitarian aid practitioners should be able to address the technical field with the help of water collection and distribution professionals. It would be very useful to prepare a handbook featuring all the systems and materials best suited to the different contexts, covering water resources, drilling, pumping, well clearance, water transport, treatment, storage, distribution, sanitation, etc.

Some civil security organisations and major NGOs have already worked along those lines and should make the entire response community benefit from their experience.

Facilitating the setting up of training programmes, not exclusively on sanitation but on the entire drinking water and emergency sanitation cycle, should also be considered. Beyond technical and material aspects, everyone must be prepared to implement appropriate responses.

The so established "doctrine" must then be popularized to reach the largest audience. In a world where the media is at the heart of conflicts and disasters, it is essential to deploy major

information campaigns on disaster prevention.

From emergencies to development aid

Lastly, it is time to improve the highly specific transition from emergencies to development. The task is difficult because post-disaster emergency calls for a quick response which leaves very little time for a medium or long term vision.

Another obstacle comes from the fact that there are two types of emergencies: the first, broadly covered by the media with a strongly mobilised emotionally aroused public opinion, and the second, which suggests a “quieter” crisis with a weaker mobilisation and financial support.

The participation of local populations must absolutely be ensured in order to ease this transition. They will be by themselves to take over after the responders to recover the infrastructures and ensure their long lasting operations. So they will have to take full ownership of the system. Acting on a case by case basis in full respect of local specificities and in a given context seems to be the best way to respond to the needs of the concerned populations. There are too many examples of infrastructures simply abandoned by the population because they are not adapted to their social and cultural practices. And the same goes for technologies that this same population is not capable of maintaining. This is why they must be associated as soon as possible to the response cycle and development phase and be trained accordingly.

Efforts should also be made towards breaking the walls between the response and development worlds which still tend to operate separately

and are furthermore subject to very different financing trends and systems.

Bringing in new partners

The increasing awareness of the populations, mainly due to the sometimes excessive coverage of disasters by the media, represents a long lasting opportunity to improve prevention and response processes. This public opinion awareness has led to a mobilisation which not only concerns specialised organisations (State and NGOs) but progressively all the strata of civil society: local non profit organisations, local authorities and enterprises.

They all benefit from a strong enthusiasm, competencies, and sometimes material and financial means. Throughout the world, large municipalities and several public and private companies have created and developed taskforces that can be mobilised immediately to respond to complex disasters and conflicts of all sorts.

These capacities must be encouraged in so far as they have a legal framework and are implemented according to rules, both to be defined.

UN agencies have a role to play that consists in facilitating a greater efficiency in full respect of moral and ethical values.

With its network of organisations at all levels, the World Water Council is willing to take part in this necessary and exciting challenge.

Notes

¹ According to the 2nd UN world report on the value of water resources, Water, a shared responsibility, 2006: « Natural disasters are increasing in number and 90% of them are water related ».

² According to the 2nd UN world report on the value of water resources, Water, a shared responsibility, 2006: « Today, 2 out of 5 people are living in zones that are prone to be flooded notably due to the rising sea level. The most exposed countries are Bangladesh, China, the US, India, Pakistan, the Netherlands, the Philippines and the small developing insular states. Climate change can only aggravate this situation ».

³ Daily UN Bulletin, 18 May 2009 « Ban urges to invest in the reduction of disaster risks ».

⁴ *The associated press*, Dispatch, 15 June 2009.

⁵ Global assessment report on disaster risk reduction 2009, UN/ISDR.

⁶ High-Level Expert Panel on Water and Disaster.

⁷ Water and disaster, High-Level Expert Panel on Water and Disaster/UNSGAB, March 2009.