

Effective Coordination of Disaster Response - The International Perspective

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ABSTRACT

Humanitarian situations have gotten more and more complex. Climate change is increasing the intensity, the increased involvement of NGOs and the revolution of social media has changed disaster response. This paper starts with a discussion of the changes that have happened in the last 10 years and then discusses how technology plays an increasing role in solving some of the more complex issues that disaster coordinators face.

Keywords

Disaster, coordination, social media, information management.

INTRODUCTION

One of the benefits of my job both working for Microsoft and for the United Nations is that I get to visit a large number of countries and learn how they have chosen to manage their preparations for and response to disasters. There certainly are differences between countries, but in my experience then there are more similarities, both in the challenges we face as disaster managers and in the ways we have chosen to deal with them. In this paper I plan to discuss some of these common challenges but also point you towards ways in which nations have selected to deal with them.

The field of disaster management has changed in the 15 years I have been involved in it. Not only has technology changed the way we can now get more detailed forecasts of the risks facing us, but it has also allowed us to more easily coordinate and collaborate with each other. But there are also other external factors that are affecting how we deal with disasters and it is appropriate to start by going through a few of those.

Climate Change

It certainly has not escaped our attention as disaster managers that the climate is changing. We are seeing more extremes, especially in weather related emergencies. The number of serious typhoons and flooding around the world have gone up and the effects are more drastic than before. Scientists debate if this is a result of man made pollution or simply a cyclic change in weather patterns. To those of us who have to deal with disasters the cause may not be the main focus, because although we can mitigate many risks within our own country, if the cause is man's disregard for the environment then that is something that can only be mitigated on the world stage.

What we Disaster Managers however have to consider is that many of our contingency plans will get stretched to the limits as mother nature releases her force in greater extent than before.

Live Media Coverage

Another big change that we experience is the fact that disasters now unfold live on TV. Ten years ago the world sat glued to the television set as for the first time in history the outbreak of a war was televised live. This changed the way many observe crisis around the world. Television networks now pre-position camera teams and journalists in the path of the storms. They have the ability to stream imagery directly via satellite from remote locations.

This change can be a double-edged sword for those handling disasters. On one hand it provides better visibility

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to the needs of the affected population and thereby increases donations and response from concerned citizens. But it also means that what we do is always in the public eye. Our actions are caught on film, and often those actions can easily be misunderstood by those who do not understand the decision process behind those actions.

The media eye also exposes our weakness in dealing with very complex emergencies. As information about the situation is limited and we do not have a comprehensive overview of the situation, journalists often focus on where we are not doing anything, instead of the great job our people are doing in those places we know there is need. This forces us to put more focus on the area of information management and effective coordination so that these gaps are identified earlier and preferably before the media starts crying wolf.

Social Media

Another change that we are experiencing rapidly over the last couple of years is the tremendous growth of social networks like FaceBook, Twitter and blogs. Dealing with the regular media is at least something we can try to manage, because they are in a limited number. Social networks are however the tool of citizens to raise their voice toward the world. In fact one can say that these tools have made every citizen a journalist. This can therefore often affect people's views of the response as more and more people start criticizing the work that we are doing.

We are also seeing more and more traditional media utilizing social networks as their source of information. When typhoon Ketsana passed over Philippines a TV station started gathering social media messages coming through Twitter and FaceBook and drawing them up on a map of Manila. Through that online map it quickly became apparent that large portions of Manila were under water and people utilized their mobile phones to report via social networks that they were stranded on roof-tops. In another case in England a year ago they utilized Twitter to ask people to provide information about depth of snow around the country during one of the blizzards that passed over. This became a very useful tool for disaster managers.

So one of the big question we as Disaster Managers have to face over the next few years is how we can leverage this change for good for example to get better information from our citizens. Working under the watchful eyes of these citizen journalists also means more push for accountability of our actions and that in turn should be a reason for us to continually try to improve the way we prepare and respond to disasters.

A COMPREHENSIVE APPROACH

So what do these changes mean to us who deal with disasters. There are three things we must consider if we want to build a comprehensive approach when dealing with disasters. First of all we must shift our focus from dealing with the aftermath of a disaster and instead focus on disaster risk management as a continuous cycle that starts well before the disaster strikes and integrates lessons from previous disasters into our mitigate and preparedness plans.

Once we have identified the potential risks, we must find effective ways to prepare for those risks. When nature unleashes its fury upon us, we must be ready to effectively respond to the disaster. And as we rebuild our communities from the devastation caused we must make sure that those recovery actions build a community better prepared to face natural disasters in the future.

And a comprehensive approach must also ensure that all the different constituents are involved. Disaster Risk Reduction is not just something the government does. It needs to involve the citizens, the non-governmental organizations, the academic community, the private sector, the politicians and the international community. It is only if we all work together towards a more resilient country that we can succeed in being better prepared to what nature has in store for us.

Disaster Risk Information

One of the issues we often face during a disaster is that different stakeholders perceive the risk not being as serious as our scientists tell us it is. This disconnect can happen both between the scientific community and the disaster management community but also between those two communities and the citizens involved. And let us not forget that we often utilize the media to alert citizens of an impending danger. They of course will in some cases provide that information directly to the citizens, but all too often they either sensationalize the message or reduce the importance. In some cases they will even start looking for other sources of information to counter what the scientific community is warning about.

What has been found to help reduce this disconnect is to provide better access to the underlying information that is the basis for the alerts and decisions being made. As first responders get access to weather and typhoon forecasts, as they are allowed themselves to compare the different predictions models, then they are better positioned to gain an understanding of why that warning needs to be issued. We see the same happen with citizens. Today they are used to looking for information on the internet themselves. They want to make an educated decision themselves of whether to adhere to the warnings coming from the government. A recent example of this is in the state of Nevada in the US where homeowners can now see interactively on a map where seismic faults are and thereby get a better understanding of why they should perform mitigation work to prepare their houses for potential earthquakes.

DISASTER PREPAREDNESS

Once we have identified and shared with everyone the potential risk involved, then it is important that we prepare how we will respond to disasters caused by this risk. In this respect I want to focus on two different areas of preparedness, firstly, how we should organize our response efforts and secondly the training we must do to prepare ourselves to deal with potential response. All of these are activities that we must do before the disaster strikes, because we cannot and should not attempt to change any of them during the disaster response itself.

Organization

An effective national disaster legislation should define an organizational structure that allows for effective response to a disaster. This organizational structure should allow for an efficient coordination of all aspects and of all organizations involved with the disaster. The organizational structure should also be agile enough to allow for changes to be made to reflect the conditions faced within the disaster.

One key lesson we have learned is that this organizational structure should separate the policy and the operational aspects. The operational aspects should be run by professional disaster managers which are trained and experienced in managing large scale operations. When they need decisions to be made that are of policy (or political nature) then they should have direct access to the policy makers. An example of this is that in the US every major disaster has a designed federal response officer. This officer is an experienced disaster manager and he will run the operations for the government. When a decision is needed such as to announce mandatory evacuations, activating the national guard or things that will cause substantial future financial commitment, the designated disaster manager makes his case to the policy body and they make a political decision. All other operational matters are left in the hands of the disaster manager in charge.

In order to effectively coordinate the response, it is also important that all organizations involved have a place to meet and coordinate. These places are normally refer to as emergency operation centers. But it is not enough to have a fancy room with phones and tables. The most critical component of an EOC is the competency of the individuals who staff it – their ability to respond authoritatively to any possible disaster and their capacity to think outside the box when confronting the unexpected. The second critical aspect of an EOC is its communication system. This needs to facilitate the inflow of information to ensure timely situational awareness and allow strategic and tactical orders to reach the right people without delays.

Training

As I mentioned earlier one of the key critical points is the competency of the people involved. Not only do they need to have the appropriate skills training required to perform their job, but they also need to know what their role is within the entire response and how that role is part of an overall effort to respond effectively. This means they need to know how to work with each other. This becomes quite hard when there are limited times each year that they get to respond together. We can address this in part through continuous training efforts, but also through regular simulation exercises which not only serve the aspect of getting people to know how to work together, but also provide us with the ability to identify where there are gaps and opportunities to improve before the disaster strikes.

DISASTER RESPONSE

It is often said that every dollar spent on disaster preparedness saves six dollars that will spent on disaster response and recovery. But no matter how much we prepare, we have to face the fact that disaster do strike,

especially when you least expect them to.

So when it comes to dealing with the disaster itself, there are certain things that we can do to ensure that the response is more effective than otherwise.

Coordination

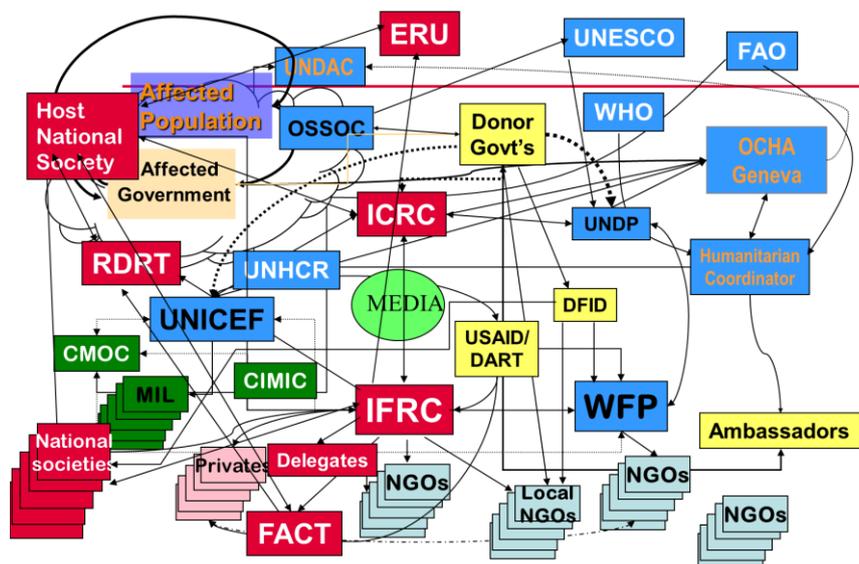


Figure 1 - Coordination of disasters

Figure 1 is something that is used both within the UN and also within the Red Cross to explain to people the importance of coordination. It is important to note that this figure shows the simplified version of what coordination looks like during a large scale disaster where the international community gets involved. In Port-Au-Prince following the Haiti earthquake in January 2010 there were over 600 organizations involved within the first week.

Years ago it was only the government and a few NGOs such as the Red Cross which got involved in disaster response. Today there are more and more NGOs involved, but we also see the private sector getting more involved in this. An example of this from the West Sumatra earthquake in September 2009 is that the local mobile operators and Ericson response were a crucial in quickly repairing the mobile phone infrastructure and thereby enabling better communication within the disaster area. At the same time DHL sent their disaster response team to assist in ensuring that relief items being flown in were quickly and effectively processed through the airport in Padang.

But this ever increasing number of actors involved in the response puts a burden on those trying to ensure that the response is effective and that there are not gaps left. To address this the international community looked at ways that could address this burden and result in a more efficient coordination. The international community came up with a model that will be described in the next section, but it is important to point out that this model is not unique to international disaster response, but is actually used by countries to coordinate their national response in an efficient manner.

The Cluster Approach

The model that the UN put in place for coordinating all the different organizations involved has been called the cluster approach. In this model a cluster is simply defined as a group of organizations that are working together to meet the needs of a particular subject area, such as for example health, logistics, education, etc. The term Cluster has for some people caused a bit of confusion, but we can just as well talk about a sectoral approach or as the US calls it Emergency Support Functions (or ESF for short).

The idea behind the cluster approach is to group together the various organizations involved in each subject area. The number of areas differs between disasters and countries and sometimes two subject areas are joined together into one if appropriate. For each cluster an organization, which can be a government organization or an NGO is given the task of leading the coordination within that cluster. It is important to point out again that it is

their responsibility to LEAD and not MANAGE the coordination. There is a clear distinction between the two. Whereas we who work for the government can manage what our response teams do, in other words they are within our command and control, then we can not manage what other organizations, such as NGOs, do. We must therefore use the cluster approach to effectively coordinate what these separate entities are doing. Through effective information sharing and coordination activities such as meetings then we can eliminate duplicate efforts and ensure there are not any gaps left behind in the response.

It then becomes the task of the overall disaster management body to coordinate the inter-cluster activities, ensuring the different clusters are sharing information and finding with each other.

For those countries that have taken up this model, the benefits of using this approach is that when international assistance is required the same model is being used and simply extended to include the international actors involved.

Information Management

Earlier in this paper the importance of good information sharing has been stressed as a key to effective coordination. This is something we have to take very seriously, especially in the initial phase of the response when information is very scarce and hard to get. It is key that what little information we have is gathered efficiently and shared with everyone involved in the response. The raw data coming in from various sources needs to be processed and presented to those that are planning the response. We often must accept the fact that information will not be available to us during the initial phase and we must therefore use our experience and shared knowledge in estimating what the worst case scenario is we are dealing with an plan accordingly.

Within the cluster approach we have designated it as one of the key tasks a cluster lead needs to perform is to ensure the effective information management within his or her cluster. But what we discovered is that it is easy for us to say information should be shared, but it is actually harder to achieve in real life.

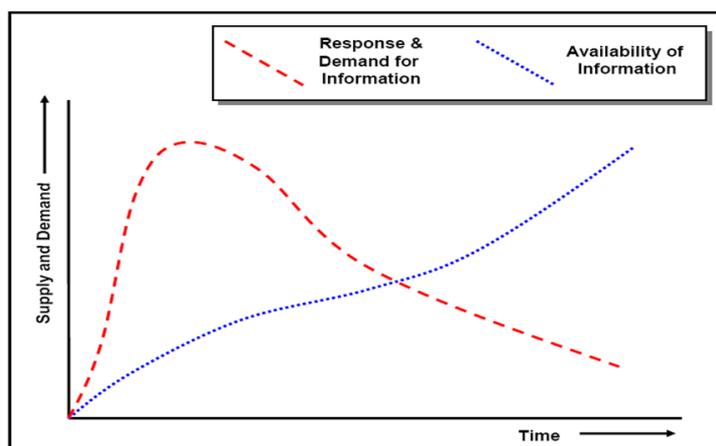


Figure 2 - Information Supply and Demand

OneResponse

This need for effective information management led to the UN approaching Microsoft two years ago with this particular problem of how to enable efficient information sharing within and between clusters. They had come to the realization that it was simply not enough to provide the organizational structure and the processes that the cluster approach defined, they also needed to provide the platform for sharing that information.

We at Microsoft looked at this problem and identified ways in which technology could support this information sharing. As we were in the middle of identifying these things, cyclone Nargis struck Myanmar in May 2008. Within a few days a team of volunteers and 19 of our partners worldwide assisted us in building a working prototype of this platform that was used to coordinate the response for the first 12 months. We then took the lessons learned from our work in Myanmar and create a new platform we have chosen to call OneResponse and it is currently being launched and piloted in a few countries by the UN as their information sharing platform during disasters.

This platform also proved its applicability to different crisis last spring when it was used to create a collaboration platform for the Ministry of Health and other organizations involved in the pandemic outbreak of H1N1 in one of the first countries to experience that pandemic.

So again I want to stress the fact that it is not enough to define the organization and define the processes, you must also provide the platform to enable effective coordination and that is where technology can play an important role.

DISASTER RECOVERY

As the initial disaster response phase comes to an end, we must start focusing on the relief efforts. There are a few things to keep in mind during this phase. The first one is quite well defined by the new FEMA Director, Craig Fugate, where he reminds us that the most important asset we have during relief is the people who survived the disasters. We need to involve them and use them in our efforts to rebuild a better community than we had before the disaster struck. Any program that does not involve the affected community directly is doomed to fail.

We must also continue to coordinate our efforts during this phase and it is our experience that the cluster approach still works and provides a platform for effective relief coordination.

CONCLUSION

In this paper the different challenges facing disaster managers worldwide have been identified. At the same time the best practices used have been mentioned. In closing it is important that we focus on learning from our experiences. Very often we go on a witch-hunt of finding someone to blame for what went wrong. We are good at identifying what went wrong, in other words identifying the fault, but we often forget to learn from these mistakes. It is human to make mistakes and we all do them, but it is only when we repeat our mistakes again and again that we should get criticized for what we did. Henry Ford, the car maker, said it well when he said „Don't find a fault. Find a remedy“. We must focus on learning from our mistakes and adapting our approach to future disasters in such a way that we face those disasters better and in a more efficient manner than before. Through technology we can share those learning across the world through communities of practice.

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