

COORDINATION AND SUPPLY CHAIN DESIGN  
– THE CLUSTER CONCEPT

*By*

***Marianne Jahre and Leif-Magnus Jensen***

*Department of Strategy and Logistics*

*BI Norwegian School of Management*

*And*

***Arnt O. Breivik, former Head of UNJLC***

*Oslo February 2009 (Updated April 2011)*



*Copyright: IFRC*

The heavily laden truck almost comes to a complete halt at the bottom of the gully, turns to the left to avoid a pothole then slowly works its way up the incline. The driver breathes a sigh of relief - the worst part of the journey is over. Half an hour later he pulls in to the improvised camp where a small crowd of people are waiting expectantly. A number of tents are up and he sees the flags of a well-known relief organisation on some of them. It is quite obvious that the camp is far from complete, but the camp is not his responsibility. The delivery of a little over a thousand plastic jerry-cans is. Helped by some of the camp personnel and locals he opens the back of the truck and makes ready to start unloading. Everyone stops, and the driver is puzzled. After a couple of minutes the camp manager arrives. "What is wrong?" the driver asks. The camp manager shakes his head "Let me show you," he says and the driver follows to a large tent a little walk away from the rest. He pulls the flap to the side and the driver immediately realizes what is wrong, as he stands watching a pile of several thousand identical jerry-cans. "We're still waiting for clean water," the camp manager says.

*(This fictional background reflects some of the recurring problems that motivated the introduction of the cluster concept)*

## INTRODUCTION

*The Asian Tsunami in December 2004 and not least the response to the Darfur crisis in 2004-2005 demonstrated problems in achieving sufficient coverage in large relief operations. A major challenge in Darfur was dealing with internally displaced persons (IDPs) where the existing system for collaboration between different relief organizations still left significant gaps in coordinating the large number of actors involved (Adinolfi et al., 2005). The scale of these operations made the weaknesses in the approaches used so far more obvious and increased the pressure for change. The response was the launch of the cluster concept in August 2005, through the Inter-agency standing committee (IASC), as a coordination mechanism for those sectors where problems had been identified.*

*The main purpose of the concept is to overcome problems related to gaps and lack of coordination in a number of humanitarian sectors, which can lead to some areas not receiving aid while others are visited by several organizations. The concept was launched as one of the three main initiatives within the Humanitarian Reform to improve humanitarian aid, the two others being strategic leadership through the Humanitarian Coordinator, and the third more predictable financing (Stoddard et al., 2007). These three initiatives are intended to reinforce each other. This case however focuses on the cluster concept.*

In particular the cluster concept is to improve efficiency in 5 key areas (Cluster Appeal 2007):

- 1) Sufficient global capacity to meet current and future emergencies
- 2) Predictable leadership at a global and local level
- 3) Strengthened partnerships between UN bodies, NGOs (Non-Governmental Organisations) and local authorities
- 4) Accountability, both for the response and vis-à-vis beneficiaries
- 5) Strategic field level coordination and prioritization.

The normal sectoral organization, with some collaboration between different relief organizations working in different sectors was thought to be insufficient. The main coordination mechanisms in the existing system were through the Humanitarian Coordinator (HC) for each country, and OCHA (the Office for the Coordination of Humanitarian Affairs). However, these two units were tasked with coordination in all the different sectors as well as between the sectors, making the success of operations highly dependent on the personal qualities of the Humanitarian Coordinator. In addition, it seems highly likely that such a system would easily overtax the capacity of the HC and OCHA in larger interventions.

With this in mind the cluster concept was designated for 9 different sectors that had experienced varying levels of operational problems. In other sectors, such as food distribution, the existing system was thought to work well enough. For food distribution, the majority of activity is carried out through the World Food Programme so the amount of inter-organizational collaboration required is reduced. After the initial stage clusters were also defined for agriculture and education, even if it has not been implemented for agriculture yet. Currently the cluster concept appears to be the preferred method of coordinating the different sectors of humanitarian aid rather than specifically a mechanism to overcome problems in certain sectors. See appendix A for the current list of cluster and lead agencies.

From the IASC accepted the use of the cluster concept in 2005, it has been introduced in a number of ongoing humanitarian aid operations. It is currently in use in 25 of the 27 countries with humanitarian coordinators<sup>1</sup>. This does not mean that the cluster system is active however, since it is only mobilized when needed, and only with the required clusters.

## COMPONENTS OF THE CLUSTER CONCEPT

The cluster concept is meant to apply to UN-bodies, NGOs and INGOs (International Non-Governmental Organisations). The concept is meant to link with local and affected government bodies, but the structure of these can vary greatly. In principle any humanitarian organization with the capacity can lead a cluster.

The cluster concept is defined functionally in terms of areas of activity, e.g. water and sanitation, health, nutrition and so on - areas that typically reflect important and somewhat separate areas of relief work. In the humanitarian system these have often been called sectors, so we will use this terminology when referring to the sectors outside the cluster concept. Organizations working in the field can contribute to several of these sectors, but there is considerable specialization. In an emergency, many of the sectors are critical, but the relative importance can vary depending on the nature of the emergency and additional features of the situation such as the resources of the host government.

In order to achieve the five goals listed above particularly three components are considered important parts of the cluster concept:

1. A clearly designated global lead in preparedness and a clearly designated lead when the cluster is mobilized
2. Central and local capacity building

---

<sup>1</sup> As of 18 April 2011. For a current list see <http://www.humanitarianreform.org>

### 3. Provider of last resort

#### **Designated global lead**

The cluster concept is top-down in nature, i.e. it is defined at the global level, and should then be applied to specific settings when they arise. Each global cluster is permanent and is lead by one designated agency, although for some of the clusters a support agency is also designated. As can be seen in appendix B the global leads are currently all UN agencies with the exception of IFRC and Save the Children. Since UN-organisations are involved in most major relief efforts this is not surprising, but nevertheless constitutes an inherent challenge in the approach. The strong UN focus and the fact that the cluster approach was originally formulated in UN terms may affect its compatibility with other organizations. International Federation of Red Cross Red crescent Society (IFRC) has extensive capacity as a convener for emergency shelter (i.e. substantial experience and knowledge in giving people immediate shelter) in disaster situations, but cannot be a global lead because the obligations this entails would constitute a violation of the IFRC charter. Furthermore the cluster concept is not based on any form of consensus with the other relief organizations so that their response to it can vary considerably.

It is the IASC which decides on cluster mobilization for a particular relief effort. This mobilization is based on an assessment of needs, i.e. clusters should only be mobilized in areas where the concept can help, and only those clusters that can contribute should be mobilized. This has been an issue in the early use of the cluster concept in that the tendency has been to mobilize too many clusters resulting in administrative overload (International, 2007, Stoddard et al., 2007). Here the cost of cluster mobilization is illustrated, both in terms of the cluster lead and administration of the cluster, but also to other participants. This cost comes both from having to spend time in meetings, and in having to follow the directions of the cluster lead rather than the judgement of the NGO or other organizations. To balance these demands the cluster must bring benefits to the participants. These are discussed in greater detail below, but at the mobilization stage the IASC must necessarily make a judgement on which clusters may bring substantial benefits. When mobilizing a cluster, a local cluster lead should also be designated. Often, this will be the global lead since these organizations are involved in some way in a majority of the relief efforts underway, but conceptually the local lead could be whichever organization is considered best for leading in a particular emergency. Evaluation from experience with local cluster leads suggests that such a lead must have personnel on the ground (i.e. it must take part in the relief effort in a significant way) in order to work effectively (Stoddard et al., 2007). So far, however, no such requirement has been put forward.

#### **Central and local capacity building**

The global cluster lead has a particular responsibility for ensuring both central and local capacity building. This may mean a variety of tasks such as building rosters<sup>2</sup> of qualified personnel for mobilization, creating stockpiles of essential relief items, training of personnel, or participating in mitigation efforts for future disasters in exposed areas. For example in Mozambique the cluster has helped with contingency

---

<sup>2</sup> Lists that name potential personnel with specified competencies, e.g. logistics, IT, etc.

planning for future emergencies (Cosgrave et al., 2007). The purpose of the capacity building at a global level is to have the “surge capacity”<sup>3</sup> to deal with three major new emergencies of up to 500,000 beneficiaries each per year, with two of these simultaneously (OCHA, 2007). This general goal is the same for all the clusters, although it is not at this stage clear whether such capacity exists. Building local capacity can mean both connecting with local NGOs and improving the capacity for disaster prevention, but is also tied to the issue of handing over responsibility once immediate action has been taken and emergency is ‘over’. In many situations the cluster will build up capacity, whether in logistics, water and sanitation or a number of other sectors. When the cluster is demobilized it is important that there is local capacity for continued operation of these systems.

The cluster concept should apply primarily to the response phase in a humanitarian intervention. The length of this phase can vary somewhat, but some authors suggest that the period from 4 weeks to 18 months is the most critical in terms of coordination and thus would be where the cluster concept should have the greatest impact. Part of the concept is also disbanding the cluster when it is no longer needed, and this implies handing over activities to local authorities where they are still needed. Depending on the local capacity before the disaster it may be necessary to train local personnel. In certain communities this local capacity must be built during the response in order to make it possible to hand over, whereas in others the handover is unproblematic once the initial crisis has been dealt with.

### **Provider of last resort**

The concept of a provider of last resort is new with the cluster thinking. It states that if no other organization can provide a needed service, then the cluster lead should take on the task of delivering it. This is a considerable responsibility considering the scale of some humanitarian relief efforts, and could be argued to place the sector lead in a position of unbounded commitments without the capacity to match this. Indeed, this was one of the issues identified for OCHA in terms of the sectors:

*On the other side, a challenge for OCHA is to be able, when identifying sectoral gaps, to obtain engagement from the appropriate agencies/organizations to fill it, without becoming itself directly involved in operational activities. (Adinolfi et al., 2005 p.49)*

The IASC has clarified the extent of the commitments:

*It represents a commitment of cluster leads to do their utmost to ensure an adequate and appropriate response. It is necessarily circumscribed by some basic preconditions that affect any framework for humanitarian action, namely unimpeded access, security, and availability of funding. (IASC, 2006 p.10)*

---

<sup>3</sup> “Surge capacity” refers to the requirements for personnel and material during an actual relief operation. For most relief organizations this is considerably higher than the normal requirements for running the organization, and often means a considerable mobilization of personnel and resources. Many organizations have rosters of potential volunteers they can call on in a crisis for this very reason.

In other words there are a number of limitations to the provider of last resort concept. Firstly, it is subject to the availability of funds which matches the dilemma in the humanitarian aid sector as a whole of balancing donor contributions with relief needs. Even so, it means that a clear and unfulfilled need behoves the cluster lead to appeal for and seek funding and/or to use its own residual funding if it is able. Hence, the financial implications for the cluster lead are by no means trivial. Secondly, the availability of funding is only one aspect of actually providing a service. The cluster lead must have spare capacity to actually handle the operation. Depending on the nature of the cluster this can mean securing access to supplies in advance and having the organizational ability (qualified field personnel and administrative resources) to take on such an operation and sufficient expertise to lead it. Thirdly, and mitigating the previous points somewhat, it is of course possible for the cluster lead in its capacity as such to push other organizations toward fulfilling the unmet needs and developing the capacities needed for this.

Regardless of the options of managing the cluster well so that the need for a provider of last resort does not arise, the responsibility remains tied to the cluster lead. Currently, the responsibility is seen as somewhat unclear because of the issues of financing, competence etc., and this is perhaps best illustrated by the lack of examples of a cluster lead identifying a large unfulfilled need and invoking the provider of last resort clause (Stoddard et al., 2007).

## THE LOGISTICS CLUSTER AND DEVELOPMENT OF THE CLUSTER CONCEPT

In the cluster concept there are two types of clusters, the regular clusters representing most of the functional areas covered, and two support clusters – emergency telecoms and logistics. The support clusters can also be said to reflect functions, but their main purpose is to support the other clusters in their activities rather than deal directly with beneficiaries themselves. Here the focus is on the logistics cluster. The logistics cluster is considered to be one of the better working clusters (Stoddard et al., 2007). In addition, the logistics cluster has some additional features that make it interesting, particularly in a supply chain coordination context. A challenge in describing the cluster concept and logistics cluster is that it presents a moving target so that both the content and implementation of the cluster concept has changed over time. Some of the changes are included in the description of the logistics cluster, whereas others have been left for discussion at the end of the document.

### **The Logistics Cluster**

The logistics cluster is responsible for preparation (including stockpiling) and emergency response with regards to logistics coordination. The global lead for the cluster is WFP. As a service cluster, logistics must determine needs not only for other organizations concentrating on logistics, but must also serve the other clusters in their logistics. The main focus of the cluster is on logistics information and coordination, and not on carrying out logistics operations itself, although this can also be the case. Especially when some critical coordination functions such as air traffic

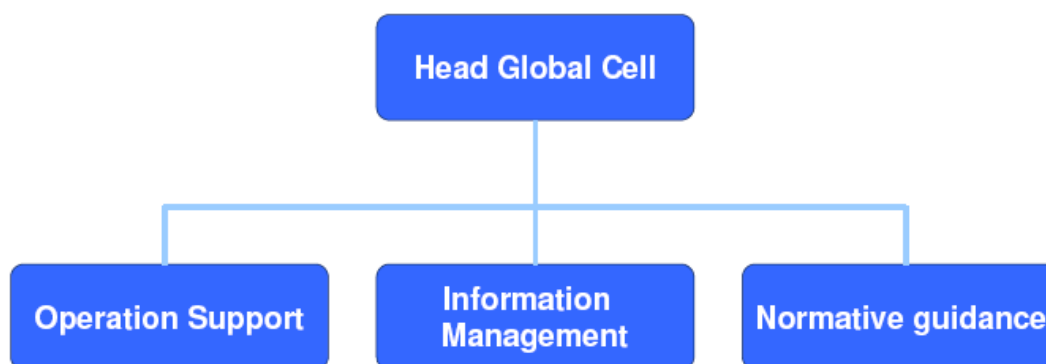
control require specialized skills and involve a high degree of operational control, this can be undertaken by the cluster.

### *Background*

In describing the logistics cluster it is important to point out that it has benefitted from the fact that logistics has been considered a Common Service for some time, and from previous work in logistics coordination. The United Nations Joint Logistics Centre (UNJLC) was the previous mechanism used for logistics coordination and was still in place when the cluster concept was launched. The UNJLC was first mobilized during the East Zaire or great lakes crisis in 1997, and had a significant impact in the Mozambique floods in 2000. The UNJLC was institutionalized in 2002. It was established by and received its mandate from IASC. The background for the UNJLC was the need to coordinate logistics activities between a number of agencies such as UNHCR, WFP and UNICEF, in particular in the early stages of a crisis response. Previously, such coordination had taken place on an ad-hoc basis. This had worked well in some cases and less so in others, making it important to find a way to ensure more consistent success in logistics coordination.

In this sense, we see several transitions within logistics coordination. Firstly from the largely ad-hoc coordination before the UNJLC, then an experimental use of the UNJLC in several relief operations, which proved broadly successful, followed by the institutionalization of the UNJLC. Finally, we see an overlap between the two concepts, with the UNJLC core unit absorbed by the Logistics Cluster formally in January 2009. Although the logistics cluster is now the only one of these two concepts to be applied to new interventions, some of the tasks carried out largely through the UNJLC during the overlap phase are instructive in showing how the logistics cluster itself can carry out its tasks, and what areas of responsibility are relevant to it.

After the merger with the UNJLC and the Global Logistics Cluster Support Cell (GLCSC) and consistent with the 2009 workplan, the GLCSC has a clear division of responsibilities into three main areas. These cover both responsibilities for development centrally, and readiness in terms of both deployment and support to the field in certain areas. Responsibilities are divided into three areas:



*Figure 1: Main areas for the GLCSC  
(Source: Global Logistics Cluster Support Cell – Draft Work Plan, Jan 2009).*

### *Information Management*

The responsibilities with regards to logistics coordination can be quite wide ranging, but considering both the experience of the UNJLC and the cluster, a number of core activities can be identified. Some of these activities can be defined at the global level, while others are more relevant to a particular intervention. In the discussion here it is assumed that WFP is both the global and local head for a particular humanitarian intervention.

The cluster is responsible for logistics information, both in its collection and dissemination. Usually such information is spread through a central webpage as well as through a series of meetings locally. The meetings are usually held at the same times each week or month and are open to all NGOs, UN bodies or local authorities who have an interest in the subject. These meetings allow for the exchange of information directly, and can also be important in making agreements regarding logistics issues. For the cluster as a whole to work well it is important that attendance at these meetings be high. Experience suggests that this is more likely to be the case where the cluster has something directly to offer to the participants (i.e. resources or access to logistics information) which can then trigger better cooperation because of high participation. However, experiences from Haiti shows that some cluster meetings may attract as much as a hundred participants, creating practical challenges in managing the meetings.

The cluster webpage<sup>4</sup> disseminates logistics information for each of the interventions where the logistics cluster is activated. Typical information included the status of roads and transport, upcoming meetings, weather information, maps and special events such as convoys. This information is gathered from the various activities of the cluster, and from NGOs and other UN bodies who volunteer information or give this during the meetings. Because the website is well established and permanent, its use should increase over time. Ideally this should also lead to involved parties volunteering more information which again increases the usefulness of the site, described as the virtuous cycle of information management. Note that the website only pertains to logistics information – political, security and other information is disseminated through other sources such as OCHA.

There are a number of special areas where the cluster can provide special services that are useful to many participants in local interventions. One of these is geographical information systems (GIS), essentially a mapping service specializing in logistics information. Whereas OCHA has responsibility for maps in general for an intervention, the logistics cluster has a specialized unit which makes maps with logistics information. Logistics in this sense means information relevant to organizations doing logistics in the area and covers the status of roads and airfields, bridges and the effects of extreme weather (typically floods) on the viability of different transport routes. These maps can then be used for planning transport runs.

The sources for the maps can be many and illustrate the essential information management function of the cluster. Some updates (for example with regards to flooding) can be made according to Modis satellite imagery<sup>5</sup>. This information can be

---

<sup>4</sup> <http://www.logcluster.org/>

<sup>5</sup> Moderate Resolution Imaging Spectroradiometer, Satellite Images from NASA satellites. See e.g. <http://modis.gsfc.nasa.gov/index.php>



imported into the GIS systems with relative ease since it is a compatible format. Modis data is updated daily, and can show the extent of flooding. It is however dependent on clear skies to give meaningful information, and this is less likely during the rainy season when flooding is a problem.

The UN Humanitarian Air Service (UNHAS) provides information on airfield status based on their ongoing operations. Typical information for an airfield is airfield status, length and condition of runway, support facilities and even the direction to approach an airfield when landing. This information should be sufficient for third parties to decide whether they can use an airfield. Some information is obtained through field trips. This is especially the case for road status since it is hard to determine without direct inspection. Important information with regards to roads are obstacles, crossings, the status of bridges and basic road conditions including what types of cars can use the roads. In order to use this data properly it must be tied to Global Positioning System (GPS) data.

Frequently relief operations mean the flow of large volumes of goods into an affected area. This creates considerable challenges with regard to customs. Normally, the two relevant aspects of customs are with regard to security issues and revenue. That is, countries want to control the goods entering the country because of the security aspect, especially for complex emergencies, and they also want to extract fees for revenue purposes. In most humanitarian operations organizations can obtain waivers for normal customs fees to avoid taxation. There are still procedures that have to be followed to obtain such a waiver, and humanitarian organizations cannot avoid the security aspect. Furthermore, the exact procedures and documentation required varies from country to country, so that it is essential to know the exact procedure for a country in order to avoid delays. This applies both to sudden-onset emergencies and the reconstruction phase, although it is arguably most important during the early stages of a disaster when delays are particularly dangerous. Procedures may also vary from a declared disaster setting and during recovery so that it is important to have both types of information where applicable.

The Customs Information Guide (CIG) is a project with the purpose of assembling an easily accessible database of relevant customs information for a set of at risk countries. This publically available resource gives information on the main locations for importing goods, documentation and procedures required, as well as contact information for local authorities. It also allows NGOs and agencies to keep their own specific information for their own members, accessible to members of that organization only. For example it may be good for members of an NGO to know who their customs representative is in a certain location but not all this information should be published for others. Part of the project involved finding customs information for a list of countries at risk, but the CIG itself also allows NGOs using it to submit information and findings on customs procedures, allowing the database to stay current. In this sense it is both a database of current information, and a mechanism for updating and expanding this knowledge.

### *Operation support*

During the first stages of an emergency air transport is often the only viable option, creating strong pressure on capacity. In several interventions the logistics cluster

has taken on the task of air traffic control for a limited period, in order both to overcome problems in local capacity which either is insufficient for the sheer volume handled, or damaged because of the disaster. This can mean some operational responsibility for air traffic control, but most important in terms of logistics is the ability to prioritize cargo, so that essential items reach recipients as soon as possible. The normal way to handle this is to focus on priority cargo but also allowing some cargo from all sectors through where this is relevant in order to enable all the different sectors to operate to a certain extent. Air traffic control can be contentious because the lack of capacity essentially means that it is a question of turning away cargo. The UNJLC was relatively successful in this position because it was seen as quite a neutral body of limited size and having no large permanent organization (Stoddard, et al., 2007). Furthermore, the UNJLC had very limited tasks outside of emergencies reducing the scope for conflict with ongoing operations. With the WFP which is a large organization and with many ongoing operations in charge, it is an open question how other UN bodies and actors will perceive the decisions made. Clearly it is important to dispel the notion that the local cluster lead in charge of air traffic control will assign priority to its own cargo to the detriment of others. Experiences from the latest emergencies suggests that this prioritization is working quite well.

Joint Supply Tracking (JST) as a service was introduced by the UNJLC and is now taken over by the cluster. JST is used where a common transport service (for example through UNHAS) is set up and managed by the cluster. It involves getting information from all actors in a disaster area regarding the volumes and items transported in order to make it possible to consolidate these requirements and use the common transport service effectively. In practice this means getting all the NGOs to submit forms with transport requests and then consolidating these through an IT system to obtain the best possible use of scarce transport resources. Reports are then produced to show the needed transports. This system also makes it possible to track stock levels at various warehouses. Such a system can only work properly if NGOs are submitting the requests in a correct way, making it essential to obtain efficient use from the start. A good example in this regard is the response to the Pakistan Earthquake in 2005. Here the JST, its purpose and basic information, was presented at the initial cluster meeting with follow-up meetings with relevant NGOs. This meant the system could be used from the start and was very well received by the NGOs. (*Interview May 2008, UNJLC Logistics Officer*). If NGOs had trouble filling in the forms correctly or submitting these because of poor access, the JST officer would often collect the data and enter these correctly into the system.

### *Normative guidance*

Normative guidance is primarily about preparedness and the development of skills to handle new mobilizations of the cluster. Typical activities here are arranging LRT and other training in order to prepare personnel, but it also covers the continual development of certain common tools such as a humanitarian commodities tracking system (i.e. a further development of the JST), as well as templates and working standards where relevant. This also involves developing a new Log manual. The core cell of the logistics cluster carries out training sessions for potential field logisticians for relief operations. The purpose of these training sessions is twofold. Firstly, it creates a roster of interested personnel and increases the overall capacity in terms of qualified personnel for relief operations. Although these trained personnel

cannot be mobilized for any particular emergency because of other commitments, it does create a considerable reserve. There are suggestions that the logistics cluster pay some percentage of the normal salary of these specialist logisticians in exchange for a more direct ability to mobilize them for a number of weeks each year. This type of agreement is clearly a response to the general problem in relief work that it takes time to recruit and mobilize volunteers for relief operations. The second main purpose of the training sessions is to observe the logisticians in near field conditions (the training sessions are carried out at Brindisi in Italy in simulated field conditions) in order to determine who will perform properly in the field. This gives those best suited some experience before going into the field, and eliminates some personnel who are not suited for field-work rather than finding this out during a crisis.

### *Extending responsibilities*

The present list of tasks taken on by the logistics cluster are not exhaustive in that new tasks may be added as needs arise. It is a matter of definition whether the logistics cluster has taken on the provider of last resort task. In several cases WFP has taken on distribution tasks, but it might be argued that it would have done so even without the provider of last resort concept. There is however an example of the cluster taking on operational tasks outside the usual remit of logistics coordination, and it is useful to consider this example because it shows the kind of task involved and the flexibility in the early stages of the cluster system. In a move unique to Sudan the UNJLC (and now the logistics cluster) was given the sector lead for the distribution of Non-food items (NFI)<sup>6</sup>.

NFIs cover a number of relatively small and low-cost items that are useful both in an emergency and a reconstruction context. Typical examples are plastic jerry-cans, plastic covers and blankets. The goods are not typically consumables, but generally wear out and must be replaced after some time, although their duration varies. NFIs are also in some sense residuals – that is supplies which would normally be classified as water-sanitation or shelter are often placed in these sectors and become the responsibility of the appropriate sector lead. In this sense the particular package of NFIs normally distributed can change somewhat based on the priorities of the other sectors.

The core concept of the common supply chain (i.e. joint pipeline) is that by centralizing purchasing and distribution of NFIs considerable savings can be made and the distribution can be made more efficient both with regards to the transport operations and matching deliveries to need. The responsibility for the NFI joint pipeline does not mean that the cluster carries out all the pipeline operations. The main operational functions are carried out by partner agencies. In particular, UNICEF is responsible for procurement and CARE is responsible for distribution from central warehousing to distribution points.

Normally most NFIs would be handled through the Emergency Shelter cluster, and the capacity for handling the joint pipeline is due to special funding for this received in Sudan where UN High Commissioner for Refugees (UNHCR) is already overloaded. This does illustrate the problems tied to neatly defining the borders of the cluster system, but it also shows how spare capacity within one sector can be used to help another. This is also relevant as an example of cooperation between clusters.

---

<sup>6</sup> See Appendix B for an overview of typical non-food items

## DEVELOPMENT AND EVALUATION OF THE CLUSTER SYSTEM

The cluster system represents a broad concept which can be quite extensive in those operations where many clusters are mobilized. The individual clusters have also met with differing levels of progress and success. In this sense, any discussion of changes in the cluster system is complicated by the number of different clusters. Here, the discussion includes some issues related to the cluster system as a whole, and secondly to some experiences with the logistics cluster specifically.

When the cluster system was first introduced many documents discussed it as the “UN cluster system” partially reflecting the heavy involvement of UN organizations in the early efforts to establish the cluster system. However, the concept was not actually intended to be UN driven, so that a main goal after the second review of the system was stronger partnership with other actors (Steets et al, 2010). There are signs now that more organizations are involving themselves in the cluster concept, but for various reasons many NGOs do not wish to participate. Since voluntary participation is an important pillar of the cluster system this is only a problem if it is believed to affect the efficiency of the overall response. Other main developments lie in tools and operating standards which essentially embody the experiences of previous operations as well as expertise within logistics. An issue that remains and differs among the clusters is that some NGOs find the leadership style of cluster leads to be “too directing,” raising the question of how the cluster lead should carry out its role. Finally, experiences from the field suggest that within logistics there has been a step change, with many more logisticians now familiar with how the cluster operates and each other. This is related in part to the logistics trainings carried out by the cluster.

An important role of the cluster discussed above is to provide certain common services where these are not available through other means. For example UNHAS may run an air transport service for a particular area, or the cluster may operate trucks itself for a limited period of time. This raises questions regarding the other actors involved in the cluster system.

For the logistics cluster a number of arrangements are relevant. One is that the logistics cluster purchases services from third parties, for example local providers of transport and warehousing. This may be done to support common services or may be necessary to support the direct activities of the cluster itself. In some situations the logistics cluster will publish a list of local providers of services so that NGOs and others save time on searching and evaluating these. Generally, using this type of local provider is seen as advantageous since it uses existing infrastructure and enables local business to recover after an emergency. A downside is however that this can take capacity from other parties who need it (international organisations and UN bodies generally pay more than local ones), and inflate prices. The cluster may decide to bring in external transport resources to alleviate capacity problems, such as in Haiti where external commercial and military resources were brought in.

The use of external resources creates problems for some NGOs for several reasons. Firstly, some are concerned about violation of the humanitarian space if they become dependent on the financing through the cluster itself. Second, some NGOs believe they violate their own charter if they employ military resources. To deal with this, the

logistics cluster in Haiti shuffled resources so that NGOs that could not use military transport resources used civilian ones, while military resources were used by UN bodies and NGOs that had no such objections. The problem however remains that some NGOs do not want to be associated with a system which involves military resources at all.

Long term alliances with commercial providers are currently not a large issue within the cluster system itself, although WFP has a long-term alliance with TNT (Tomasini & Van Wassenhove, 2009). As the cluster lead, it is reasonable to assume that it will call on this alliance also for cluster duties where appropriate.

## FINAL COMMENTS

The cluster concept is developing quite rapidly but at varying pace in the different clusters. Many projects are going on in order to increase efficiency. In addition the particular characteristics of any one emergency may mean that the cluster concept itself is more or less appropriate. It is important to note that the clusters may not be mobilized if they are not seen as needed, although it is an open question whether the threshold for mobilizing clusters will be further reduced once they are institutionalized to a greater degree.

There are some signs that the cluster concept is taking hold, at least for the UN bodies. The WFP has now written cluster responsibilities into job descriptions for its logisticians, introducing the concept at an early stage and anchoring this internally in the organization. UNICEF has quite clearly redeployed its resources in order to match better with cluster responsibilities. The issue of overlaps and gaps may in part be solved by some of the main organizations adapting to the responsibilities as defined in the concept, but it remains to be seen whether this will be the case for non-UN organizations such as the larger NGOs. Generally, NGOs and actors outside the UN system are considerably more sceptical of the concept than those in the UN system (Stoddard et al., 2007).

A final issue that remains to be resolved is how the leadership of the clusters is to be carried out in the field, with several reports suggesting that cluster leads were adopting a directing rather than a facilitating role, to the detriment of cluster participation as a whole. This is an important challenge because it is fundamental to making the cluster concept work – humanitarian organizations with strong charters and strong organizational cultures do not as a rule like to be directed by others. For the cluster leads, remaining sensitive to this issue whilst ensuring that tasks are completed in a highly chaotic environment is clearly a very difficult leadership task.

### Discussion questions:

1. Use the literature to discuss and classify what type of coordination the cluster concept was developed to undertake. What are the tradeoffs between different types of coordination?
2. How does the use of commercial service providers fit with the cluster concept? Pick one commercial service provider (a specific firm or a particular type of service provider, preferably within logistics) and discuss how it could work with the cluster effectively.

# Appendix A: Clusters, global leads and activations

Please see <http://www.humanitarianreform.org/> for the latest cluster updates.

## Appendix B: Example of an NFI package

NFI package with standard quantities for one truck

NFIs	No. of pcs per 20MT Truck Load
Blanket	3,000
Plastic sheet	3,000
Sleeping Mat	2,400
Soap	162,000
Mosquito Nets	12,000
Jerry Cans	1,080
Buckets	3,600
Sanitary Materials	19,800
Women's Clothes	10,800

*Comment: 2005 package, NFI in Sudan. Several items were since removed and provided by other sectors.*

*Source: UNJLC documentation*

The purchase price (2007) of the NFI package was \$17 which is quite favourable. Items are purchased from local or international providers depending on availability and price, subject to quality standards. Individual providers may be excluded if the quality of the products is not sufficient.

## REFERENCES

- ADINOLFI, C., BASSIOUNI, D. S., LAURITZSEN, H. F. & WILLIAMS, H. R. (2005) "Humanitarian Response Review". Office for the Coordination of Humanitarian Affairs.
- COSGRAVE, J., GONCALVES, C., MARTYRIS, D., POLASTRO, R. & SIKUMBADILS, M. (2007) "Inter-agency real-time evaluation of the response to the February 2007 floods and cyclone in Mozambique". IASC Working Group.
- IASC (2006) "Guidance note on using the cluster concept to strengthen humanitarian response". IASC (Inter-agency Standing Committee).
- IFRC (2008) "Emergency Shelter Consultation Project Survey Findings January-March 2008".
- INTERNATIONAL, A. (2007) "The Evolving UN Cluster Approach in the Aftermath of the Pakistan Earthquake: an NGO Perspective". ActionAid International.
- OCHA (2007) "Appeal for Building Global Humanitarian Response Capacity". Office for the Coordination of Humanitarian Affairs.
- RANA, R. (2007) "A Review of the Philippines Typhoons Shelter Working Group". International Federation of Red Cross and Red Crescent Societies.
- STEETS, J., GRUNEWALD, F., BINDER, A., DE GEOFFROY, V., KAUFFMANN D., KRUGER S., MEIER, C. AND SOKPOH B., (2010) "Cluster Approach Evaluation 2 Synthesis Report," Global Public Policy Institute.
- STODDARD, D. A., HARMER, A., HAVER, K., SALOMONS, D. D. & WHEELER, V. (2007) "Cluster Approach Evaluation Final". *OCHA Evaluation and Studies Section (ESS)*.
- TOMASINI, R., & VAN WASSENHOVE, L. (2009) "From preparedness to partnerships: case study research on humanitarian logistics," *International Transactions in Operational Research*, Vol 16, pp.549-559.