Evaluation Department

Norad

Evaluation of the Effects of Using M-621 Military Cargo Trucks in Humanitarian Transport Operations

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Evaluation of the Effects of Using M-621 Military Cargo Trucks in Humanitarian Transport Operations

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PREFACE

Since 2002 more than 500 Norwegian ex-military M6 cargo trucks have been used for humanitarian transport in 12 countries on three continents. The overall goal of the M6 scheme has been to save lives and provide protection by using these trucks where other means of transportation did not exist or where the costs of alternative transportation could not be met.

The scheme became the object of heavy criticism from the press and researchers in early 2007. The main funder of the programme, the Norwegian Ministry of Foreign Affairs, responded by requesting the Evaluation Department of Norad to commission an evaluation of the scheme. The purpose of the evaluation has been to document the effects of M6 interventions and to identify the lessons learnt to improve future humanitarian operations intended to meet special transportation needs.

In August 2007, a Belgian company, Channel Research, was commissioned to carry out the evaluation. The report, which you now have in your hands, is rare among evaluation reports for its lucid story-telling and clear conclusions.

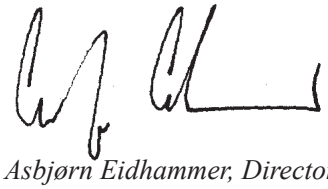
The team concludes that the M6 trucks undoubtedly saved lives and alleviated suffering. Many of these lives could, realistically, not have been saved in any other way. In total, somewhere between 1.2 and 1.5 million people were assisted through the use of the trucks.

The agencies responsible for the operations, however, do not escape criticism. The team found lack of sound strategies, planning documents and reporting routines, as well as an inability to communicate effectively. These factors reduced both the impact and effectiveness of the project.

Although the M6 proposal triggered unusually thorough policy discussions within the Ministry of Foreign Affairs, the Ministry has a low capacity to follow up on results and impact. While the main message communicated by the implementing agencies was that the program was a huge success, a systemic weakness in the Ministry's quality assurance system prevented it from seeking alternative information.

These brief extracts cannot do justice to the thoroughness of this report. But, it is evident that the conclusions of this evaluation are mixed. There is a lot to be learnt from this report, and the consultants present a number of recommendations, calling first of all for more overall strategic thinking, improved capacity to learn, and for the Ministry to review its relationship with large NGOs.

Oslo, December 2007



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Abbreviations

Term	Meaning
ALNAP	Active Learning Network for Accountability and Performance in Humanitarian Action
CARE	Cooperative for Assistance and Relief Everywhere
CRC	Chad Red Crescent Society
DAC	Development Assistance Committee (of the OECD)
ERRA	Earthquake Reconstruction and Rehabilitation Agency (in Pakistan)
FLO	Forsvarets logistikkorganisasjon – Norwegian Military Logistics Corps
HA	Humanitarian Action or Humanitarian Assistance
ICRC	International Committee of the Red Cross
IFRC	International Federation of Red Cross and Red Crescent Societies (in this report most often used with reference to the IFRC Geneva secretariate and its representatives in national and regional delegations)
IHP	International Humanitarian Partnership
INGO	International Non Governmental Organisation
MFA	Ministry of Foreign Affairs (of Norway, unless otherwise specified).
MoD	Norwegian Ministry of Defence
M6	M-621 6x6 military cargo truck. Also knows in Norway as the “White Trucks”
NCA	Norwegian Church Aid (a member of the ACT network)
NGO	Non Governmental Organisation
NO	Norway (ISO 2 letter code)
Norad	Norwegian Agency for Development Cooperation
Norcross	Norwegian Red Cross Society
NOREPS	Norwegian Emergency Preparedness System
NPA	Norwegian Peoples Aid
NRC	Norwegian Refugee Council
OCHA	UN Office for the Coordination of Humanitarian Affairs
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
ONS	Operating National Society (Red Cross/Crescent term for a RCRC implementing programmes in its own state)
PLWHA	People living with HIV/AIDS
PMI	Palang Merah Indonesia, Indonesian Red Cross Society
PNS	Participating National Society (Red Cross/Crescent term for a RCRC organisation supporting a Sister Society in another state)
SRSA	Swedish Rescue Services Agency
TSU	Transport Support Unit
TSP	Transport Support Package
UNDRO	United Nations Disaster Relief Organisation – replaced by DHA
UNHCR	United Nations High Commissioner for Refugees
Unicef	United Nations Children’s Fund
WFP	World Food Programme

1 Executive Summary

1.1 Background

Norad commissioned this evaluation of how over 500 ex-military M6 cargo trucks have been used for humanitarian transport purposes. The *overall goal of the M6 interventions has been to save lives and provide human protection*. The intended objectives were to respond to special needs for humanitarian goods and services where other transport means did not exist due to particularly difficult terrain and where the costs of transport could not be met.

The interventions were co-financed and implemented by the Norwegian Red Cross Society (Norcross) in partnership with one or more of the following implementing partner organisations: International Federation of Red Cross and Red Crescent Societies (IFRC) and its member Societies, International Committee of the Red Cross (ICRC), World Food Programme (WFP) and United Nations High Commissioner for Refugees (UNHCR). The interventions have taken place in Chad, Haiti, Indonesia, Kenya, Lebanon, Malawi, Mozambique, Niger, North Korea, Pakistan, South Africa and Zambia in the time period 2002 - September 2007.

The *purpose of the evaluation* was to document the effects of M6 interventions (accountability purpose) and to identify the lessons learnt to improve future humanitarian operations intended to meet special transport needs (learning purpose). Relevant *cross-cutting themes* are considered.

In 2002 and 2003, the Norwegian defence authorities, responding to a request from Norcross, donated more than 1 000 military, all-terrain M-621 cargo trucks to the Society. The trucks, hereafter referred to as M6s, were produced in 1968-70. Over the years Norcross built up experience in supplying Transport Support Units (TSUs) for humanitarian transport operations. The Ministry of Foreign Affairs (MFA) has been a major funding source for these efforts. TSU is a modular disaster preparedness product designed to cover special humanitarian transport needs. It consists of special vehicles and corresponding spare parts, mobile workshops as well as technical assistance and training of partners involved in the operations. The M6s have been the backbone of the TSUs and are the main focus of this evaluation. In May 2007, 527 trucks had been delivered of which 282 were still operational, although not always in use.

When assessing the interventions which are a focus of this evaluation it is important to have some ideas of the challenges facing humanitarian actors and the framework within which these challenges are met. The “humanitarian actors” include the governments of affected nations and their counterparts in bilateral relationships, some of the UN agencies, the components of the Red Cross/Red Crescent Movement, the more established International Non-Governmental Organisations and relevant host-country Non-Governmental Organisations.

These actors share little beyond an interest in being active in humanitarian response. Each has an agenda of its own which colours the way it approaches the task of responding to a disaster. Common patterns include lack of coordination, a preference for high-profile sudden onset disasters, links to the overall political aims of the concerned organisation, a tendency to commit more funds than are actually delivered and an unwillingness to commit funds to systemic and long-term needs.

This “coalition of whoever is involved” is faced with environments where the population is under great stress, where infrastructure is commonly underdeveloped or recently destroyed,

where the affected population is often divided by latent or open conflict and where societal coping mechanisms risk being overwhelmed.

Leading disaster relief operations in such contexts involves constant compromise. Each of the nine interventions the evaluation team has studied have involved such strategic compromises.

In 2002, informal Norcross/WFP consultations revealed that there was a great interest in a transport support unit, consisting mainly of M6 for Southern Africa. The intention was to use the trucks particularly for the "last mile", the distance between the last warehouse/hub and the distribution sites.

The operation was seen as a pilot project and regarded as a success despite initial problems. Norcross went on to offer similar resources in a series of relief operations. A total of NOK 146,5 million have been spent on the TSU interventions to date. Off this NOK 127,7 million are directly related to the M6 trucks and NOK 24,9 million refer to the cost of delivering the trucks to the areas of operation.

1.2 Findings

The 527 trucks were used in nine operations to distribute close to 240.000 tonnes of food and relief goods and reconstruction materials. They were also used to transport people. Close to 80.000 refugees and internally displaced people were relocated with their help. In all somewhere between 1,2 and 1,5 million people were assisted through the use of the trucks.

Cross Cutting Issues

The eight cross-cutting issues important to consider in any evaluation are local context, human resources, protection, participation of primary stakeholders, coping strategies and resilience, gender equality, HIV/AIDS and the environment. The evaluation team found that Norcross did not pay enough attention to the local contexts where M6s were sent. Attention has been paid to human resources. Local staff received suitable training and, in general, rapidly developed the capacities necessary to fulfil their duties. Overall, the technical and basic management skills of the people sent into the field have been good to excellent. The evaluation team also found examples of personal conduct problems with some of the staff sent out.

In terms of protection, the UNHCR operation in Chad is probably where the M6 operation had the clearest direct protection impact. Primary stakeholders have not been involved in the decision-making processes. Meanwhile, the evaluation team has seen multiple, both documented and anecdotal, examples of implementing partners using established methods to stimulate such participation.

The evaluation team found that most stakeholders were uninformed about gender issues and has found no documented effort to analyse the potential links between HIV/AIDS and TSU operations. However, we have anecdotal evidence that a pattern of distribution points closer to the villages (made possible by M6 capacities) is relatively more important for people living with HIV/AIDS and for women e.g. the incidence of rape reportedly declined with the use of the trucks in North Kenya.

The evaluation team has not found evidence that the environmental impact of using these trucks is significantly worse than other trucks nor have we found evidence indicating the military background of the vehicles is a problem even in complex emergencies.

Finance

The evaluation team has compared the costs of the M6s with some of the other trucks used in relief operations. We found the *annual cost* of an M6 truck to have been quite competitive. However, the *cost per tonne* of the M6 was much less competitive. The length of the operation is important as the shorter the depreciation time used, the more competitive the M6s become as compared to new trucks. The kind of programme within which the trucks are to be used is therefore crucial to its cost competitiveness. *It is further incontestable that real, delivered, maintained, old, smelly and expensive-to-run trucks are much more useful than highly*

effective, less expensive, cleaner, more modern trucks that no one is prepared to pay the purchasing price for.

Many of the disaster areas where interventions have been made have functioning local transportation markets. However, the evaluation team found that the M6 transportation niche is not filled, and is unlikely to be filled, by the commercial market.

Management

The Norwegian Red Cross was repeatedly unable to communicate effectively. This is true internally and externally, at many levels. There was a disconnection between people with relief operation responsibilities and development programming responsibilities. Furthermore, key stakeholders within the Federation structure have not felt that the option to refuse M6 interventions has been realistic due to the perceived risk of losing favour with a key supporting member society.

There appears to have been an organisational culture within Norcross so satisfied with the apparent success of the programme that critical feedback was ignored and resistance to new interventions often bypassed. Established systems were bypassed causing additional costs, significant bad-will and unnecessary delays. It was considered OK to initiate the interventions without an exit strategy.

The role of the MFA in the M6 project followed established procedures that govern MFA - large Norwegian NGOs relations. A fundamental element is trust with quality assurance focused on the application process. MFA has a very low capacity to follow up on results and impact.

The M6 project triggered unusually thorough policy discussions within the MFA but alternatives to the M6 were never requested, presented or discussed. The main message communicated to MFA by WFP and Norcross (and IFRC?), was that the program was a huge success.

The project had solid (and enthusiastic) support from Norcross senior management and governance. However, the lack of sound strategies, planning documents and reporting routines begs the question whether there was an *informed* decision making. The evaluation team found that lack of strategic approach, planning and quality assurance in general reduced both the impact and effectiveness of the project. There has been almost no use of evaluations or reviews as tools for improving quality and impact. When external evaluations have been undertaken, there is little evidence that conclusions and recommendations have been acted upon.

Relevance and appropriateness

The evaluation team found that there is a need for relief agencies to supply trucks for rough terrain and that such trucks will almost always be cheaper to run than air operations. Views differ as to the technical appropriateness of the M6s. The trucks are appropriate for particular circumstances, in particular areas with severely damaged infrastructure and/or flooding. They are not the only trucks available to fulfil such tasks. The appropriateness of M6 trucks is thus highly dependent on the design of the program, and how they are used. Were they used appropriately? This varies. A recurrent problem was oversupply which led to difficulties with NOT using existing resources. This in turn, in some interventions, led to inappropriate use.

The evaluation team found that the M6's are relevant and appropriate if used for the tasks for which they are designed. TSUs would be more relevant if not linked so tightly with the M6 trucks.

Effectiveness

Did the M6 do their job? Yes. Undoubtedly. They delivered x from a to b, and in doing so saved lives and prevented human suffering. Were they the most effective solution to the task they were supplied for? Cost effectiveness is dependent on life-cycle cost of the trucks which remains unclear both for the M6 and the alternatives. Some of the interventions have been

criticized due to the cost of air transportation. This is unjustified if the trucks replace helicopters. Costs and delays incurred due to insufficient preparations are much more serious.

Efficiency

With the exception of initial start-up problems, overall the trucking fleets run under the programme had good, professional transport management and maintenance. Efficiency problems caused by the technical specifics of the trucks have been compounded by the tendency to oversupply. Overall intervention efficiency would have been significantly higher if Norcross had been capable of improving connectedness, including better compliance with IFRC standard procedures and more ambitious investments in the capacity building of partners. The ambition and orientation of capacity building implemented was generally only geared towards narrowly defined fleet needs.

The lack of administrative tools like Standard Operating Procedures and appropriate manuals were clearly and repeatedly identified as a serious problem from the very start of the programme.

Coordination with the IFRC was at times dismal. The failure to address this in a timely manner significantly decreased intervention efficiency.

Connectedness

The evaluation team found that the absence of strategy, agreed mandates and working procedures has led overall connectedness to be dependent on personalities and local conditions.

Conclusions

The evaluation team's overall conclusion is that*:*

the use of the M6 trucks has undoubtedly saved lives and alleviated suffering in operations where they have been used.

The evaluation team also concludes that many of these lives could not, realistically, have been saved in any other way – given the logistics necessary and the availability of resources that the people affected, the national authorities concerned and the international community were willing and able to mobilise. All the following conclusions and recommendations should be understood in reference to the overall conclusion.

The Transport Support Unit concept is universally hailed as useful and should be maintained and developed over the coming years. Future TSUs should be needs driven. They should include special transport capabilities equivalent to those of the M6's only if needed in a particular context.

The weakness of the MFA quality assurance mechanisms for this project is attributable to a systemic weakness, not this project.

Norcross lack of systematic strategic planning, administration and follow up of the project can be attributed to a general organisational culture. The board and senior management has a particular responsibility, as quality assurance has never been asked for or accounted for.

The lack of formal procedures has also facilitated innovation, creativity and speedy solutions – all crucial to successful response to emergency situations.

1.3 Summary of key recommendations

- Norcross should develop an overall strategy for the use of TSUs. Norcross should continue to offer the M6s as a resource, until the current, upgraded stock runs out. What to do with the remaining stock should be one of the issues to be addressed in the strategy.
- Norcross should develop a plan to address its documented inability to learn. The plan developed should involve all levels of the organisation i.e. Governance, Management, staff and key volunteers.

- If Norcross chooses to continue with TSU interventions Norcross should ensure that the use of TSUs is better "anchored" and communicated within IFRC.
- Norcross needs to develop clear procedures for how to request, implement and exit TSU support with guidelines to be followed in the process.
- If a coherent strategy is developed, Norwegian government should continue to support Norcross capacity to supply the international humanitarian system with relief transport capabilities.
- Norwegian government should consider ways of improving its ability to triangulate information received from its major NGO partners.
- Norwegian government should review its relationship with large Norwegian NGOs and Norcross. In line with the principles of good donorship, MFA should develop its capacity to actively monitor how programmes and projects funded by the government are actually implemented. Even experienced and highly professional organisations need the support of a critical, pragmatic, external pair of eyes from time to time.

2 The evaluation

2.1 Introduction

Channel Research (Belgium) and Nordic Consulting Group (Norway), are pleased to present this Evaluation of the effects of using M-621[1] military cargo trucks in humanitarian transport operations. The evaluation began on 11th September and the final report was delivered on 3rd December 2007.

The Evaluation Department of Norad commissioned Channel Research to implement this evaluation of how over 500 trucks, supplied by the Norwegian Ministry of Defence (MoD) and partly financed by the MFA, have been used for humanitarian transport purposes. The *overall goal of the M6 interventions has been to save lives and provide human protection*. The intended objectives were to respond to special needs for humanitarian goods and services where other transport means did not exist due to particularly difficult terrain and where the costs of transport could not be met.

The interventions were co-financed and implemented by the Norwegian Red Cross Society (Norcross) in partnership with one or more of the following organisations: International Federation of Red Cross and Red Crescent Societies (IFRC) and its member Societies, International Committee of the Red Cross (ICRC), World Food Programme (WFP) and United Nations High Commissioner for Refugees (UNHCR). The interventions have taken place in Chad, Haiti, Indonesia, Kenya, Lebanon, Malawi, Mozambique, Niger, North Korea, Pakistan, South Africa and Zambia.

The evaluation deals with the interventions made in the time period 2002 - September 2007.

2.2 Purpose, objectives and scope[2]

The *purpose of the evaluation* was to document the effects of M6 interventions (accountability purpose) and to identify the lessons learnt to improve future humanitarian operations intended to meet special transport needs (learning purpose).

The evaluation was to recommend whether the M6 programme should be continued, cancelled, phased out, or modified.

The evaluation was further to make general recommendations on the issues to be considered when the use of such assets is proposed.

The evaluation had two main *objectives*:

- to assess the relevance, appropriateness, effectiveness, efficiency and sustainability of past and ongoing M6 interventions in humanitarian transport operations, including the roles, functions and performance of MFA, Norcross and its implementing partners, and;
- to discuss and analyse whether the use of M6 in humanitarian operations should be continued or discontinued, and provide guidance and recommendations at both strategic and operational levels 4a) how to enhance the effects and b) possible exit strategies and phasing out.

The *primary users of the evaluation* will be the MFA and Norcross….the evaluation should be of interest to other actors involved in disaster preparedness and humanitarian responses as well the Norwegian defence authorities, the Parliament, the Auditor General and the public at large, including the media.

1 From here on the trucks will be referred to as the M6 trucks for simplicity.
2 This section is based on the Terms or Reference and the Inception report. They may be found in Annex 1 and 2 respectively.

The evaluation object is the M6 inputs as well as the M6 intervention strategy and implementation processes (M6 interventions). It assesses both intervention strategy and implementation processes and activities….the circumstances and processes that led to Norcross supplying M6, and the function and performance of Norcross in these efforts, including contribution to sustainability and capacity development. It also describes and assesses the role, function and performance of MFA.

The evaluation covers the period from 2002 up until the time of the evaluation.

The evaluation does not attempt to make a comprehensive assessment of the humanitarian assistance of Norcross in general or of the broader international humanitarian operation in which the M6 interventions/TSU operations have constituted one of many parts.

Consideration is given to relevant *cross-cutting themes.*

2.3 Methodology

2.3.1 Conceptual approach

The M6s have been used in a series of highly complex emergencies in multiple contexts. In order to make analysis possible the team has needed to create a conceptual framework intended to structure and simplify.

The evaluation team has organised its internal work, its data collection and its analysis according to *level of system* i.e.

- Strategic system level, including the overall political, societal, economic and disaster context;
- institutional system level, including the capacities of partners and the interventions' impact on these;
- operational system level, focusing on how the fleets were used, managed and maintained.

The evaluation team has further sought to clarify:

- Processes, e.g. how were decisions taken, were there proper needs assessments, did coordination function;
- job done, i.e. what were they actually used for;
- outcomes, i.e. what was different during and after the interventions, as compared with what the situation would have been without the trucks.

In some cases the above is based on hard data, such as loading capacities or known fuel consumption when this has been documented. In other cases, such as overall context or specific outcomes, there is at best anecdotal data and the perceptions of key people as remembered and shared in the interviews.

The eight cross-cutting issues important to consider in any evaluation are, according to ALNAP, local context, human resources, protection, participation of primary stakeholders, coping strategies and resilience, gender equality, HIV/AIDS and the environment. The evaluation team considers them at all levels of analysis, as and when the data make it possible for it to comment. Our analysis will focus on the relative impact (between different alternatives) rather than an absolute impact (e.g. environmental, gender etc).

2.3.2 Data collection

The primary methods for this evaluation were interviews, document review, and research.

The team has conducted interviews with key informants. The key informants have been drawn from staff and/or volunteers of MFA, the Norcross, the ICRC, IFRC, National RC/RC Societies, private-sector transport companies, NGOs, INGOS, WFP, UNHCR and UNICEF. Initially identified key informants have gradually been complemented by additional interviewees identified using a snowball technique[3]. A similar process was used for each of the field visits.

3 Every key informant will be asked who else the team should be talking to, until all the available potential key interviewees have been identified.

Interviews followed the basic semi-structured interview format. They were conducted using a basic question script. Interviewers departed from the script to investigate issues of particular interest in interviewees' answers to the scripted questions.

In order to encourage frankness by the interviewees, all interviews were conducted on the basis of the Chatham House rule. The evaluation team has therefore avoided attributing comments and data directly to interviewees or their organisations in order to lessen the risk that individuals be identified.

The evaluation team interviewed a wide range of sources in order to triangulate the information. A full list of those interviewed may be found in Annex 3.

The evaluation team has had access to and has reviewed existing relevant documentation as and where the concerned organisations have been able to produce it.

Document analysis has included general policy documents (MFA), programme documents (appeals and reports), letters and correspondence between the stakeholders. As there is a weak tradition for written documentation of decision making within the Norcross, the evaluation team has been careful to triangulate documents with interviews. In general, policy and strategy documents on the M6 operation have not existed. A list of documents reviewed may be found in Annex 4.

Research has been largely limited to tracking down documents and to researching specific issues that arose during the evaluation. The Internet has been the primary research tool.

Triangulation has been used to verify the validity of the evidence gathered by the team. The evaluation team has used triangulation by:
- Interviewing different types of organisations on the same topic
- Interviewing different levels within organisations on the same topic
- Comparing the information gained from different methods (document review, interviews, and research).
- Comparing information from national and international sources.

2.3.3 Financial and technical comparison

The financial analysis is based on consolidated figures as measured by Norcross financial controllers at the time of the internal review, dated March 2007. It includes approximate costs for air transport, barges and non-motorised alternatives.

It has not been possible to establish a reconciled budget for the global use of M6, i.e. including the costs carried by implementing organizations, although figures were requested from the relevant organisations.

There is no exact equivalent of the M6s in terms of performance. The trucking alternatives that the evaluation team has considered have been: commercial trucking and purchasing new trucks (Mercedes 6x6, Mercedes 1017, MAN 4x4, DAF,Renault 4x4, Renault 6x6, Isuzu FSR Trucks and Tata SD1015)

2.3.4 Work Plan

Phase I: Inception report, archive searches and initial meetings with stakeholders

This phase began with the signing of the contract on the 11th September. The team and Norad met with MFA and Norcross.

The team developed the evaluation conceptual approach, criteria for selection of field visits and chronology. Initial interviews and archives searches took place in Oslo. Planning, visa application procedures, travel management and interview bookings were also implemented.

Phase II: Missions to field, logistics hub and regional or country offices

When selecting the case studies the evaluation team considered the following:

- Size of operation: measured by the number of trucks; leading to priority for Southern Africa (203), Indonesia (98), Niger (70), question-marks for Kenya (50) and Pakistan (40) and low priority for Haiti (32), Chad (29), Lebanon (24) and North Korea (5).
- Terrain and truck use: speaking in favour of multiple field visits in order to capture the variability of these aspects. The team felt that at least the Southern African countries and the Sahelian African examples (Northern Kenya, Chad and Niger) could be seen as clusters with significant similarities which furthermore were likely to be future challenges. The non-African examples did not contain clear clusters.
- The practicalities of being able to access documentation and interview people who had been in key positions during the interventions made us want to avoid operations that had been closed down, (excluding e.g. Mozambique, Haiti, Pakistan, Lebanon). The same practicalities spoke in favour of regional logistics hubs (e.g. South Africa, Kenya, Dubai, Indonesia).
- Known, planned or implemented exit strategies involving handover to partner organisations, leading to priority for Indonesia and Kenya due to planned use of trucks for regional preparedness purposes.
- Exclusion, various criteria; Pakistan (trucks re-exported), North Korea (impractical), Haiti (quite old, key persons likely to have left) and Lebanon (existing documentation with ICRC in Geneva).
- MFA funding share, TOR specify 50% MFA share.

On balance the team chose to propose Southern Africa and to approach Norad to gain acceptance for including Indonesia and Kenya, despite the fact that they did not reach 50% MFA funding. This was deemed acceptable by Norad[4] as the team assessed these as the most productive examples and as there has been MFA contribution to the programme as a whole, as is evidenced by substantial upgrading costs.

The on-site visits were divided into several separate missions each including document searches, interviews and, where relevant, direct observation of e.g. workshop or warehousing activities. In addition the team visited the organisations' HQs where needed. the evaluation team met and interviewed key personnel involved in all of the phases of the M6 intervention; preparation, implementation and exit of the interventions.

One field study went to Southern Africa (South Africa, Malawi and Zambia) and Kenya involving 2 international consultants and 2 national consultants. A second field study went to Indonesia involving 1 international consultant and 1 national consultant. In each country the evaluation team was in contact with relevant stakeholders, e.g. Norwegian Embassies, the IFRC, the National Red Cross societies, other implementing partners where relevant, field staff of local user organisations, representatives of local transportation companies, the national authorities and ministries involved in the M6-intervention.

A third mission went to Dubai where the logistic hubs of the IFRC and WFP were visited. No local consultant was contracted here.

All in all the team visited South Africa, Zambia, Malawi, Kenya, Dubai and Indonesia. The team also visited organisational HQs in and Oslo, Geneva, London and Vienna.

Phase III: Synthesis

There was a stakeholders meeting in Oslo on 26th October when the preliminary findings were presented in order to triangulate possible factual misunderstandings.

The draft evaluation report was presented to Norad 12th of November and then shared with the Norwegian stakeholders for comments.

The final report was presented to Norad on 3rd December.

4 refer meeting Teigland sept 17th

3 Background[5]

The Norwegian Red Cross Society (Norcross) is an important partner of the Norwegian Ministry of Foreign Affairs (MFA) in international humanitarian assistance.

In 2002 and 2003, the Norwegian defence authorities, responding to a request from Norcross, donated more than 1 000 military, all-terrain M-621 cargo trucks to the Society. The trucks, hereafter referred to as M6s, were produced in 1968-70. Over the years Norcross has built up experience in supplying Transport Support Units (TSU) for humanitarian transport operations. MFA has been a major funding source for these efforts.

TSU is a disaster preparedness product designed to cover special humanitarian transport needs. It consists of special vehicles and corresponding spare parts, mobile workshops as well as technical assistance and training of partners involved in the operations. It is designed as modules that can be delivered in parts, or as a whole. The concept has always involved an implementing partner with the operating responsibility.

Norcross has taken an active role in introducing, developing, financing and promoting the TSU concept within the Red Cross and Red Crescent Movement.

The M6s have been the backbone of the TSUs and are the main focus of this evaluation.

The overall goal of using M6 in these operations has been to *save lives* and *provide human protection*. The intended objective was to respond to special needs for humanitarian goods and services where other transport means did not exist due to particularly difficult terrain and where the economic costs of transport could not be met.

During the evaluation period Norcross delivered nine TSUs to relief operations spread over three continents (Southern Africa, Haiti, Chad, Niger, Pakistan, Lebanon, North Korea, Indonesia and Kenya). Of the 1 068 M6 received, 527 M6 has been sent out as part of TSU operations. Of these, 282 were operational, although not always in use, as per May 2007.

During the spring of 2002 the Norwegian Military Logistics Corps (Forsvarets logistikk-organisasjon - FLO) offered a number of M6 for use in humanitarian operations. The offer went to several different humanitarian organisations and came without pressure to accept. Due to the worsening food security situation in Southern Africa, and formally based on a specific request from the World Food Program (WFP) in mid-2002, Norcross requested to take over 200 M6. Norcross was to take on the responsibility of delivering a Transport Support Package (TSP) to support WFP operations in Southern Africa, operated in partnership with IFRC[6]. The request was formally approved by the defence authorities in July 2002. In all, 200 M6 were subsequently shipped to South Africa and employed in the Southern Africa TSU operation spread over the following countries over different periods: Lesotho and Zimbabwe (2002/2003), Zambia (2002-04), Malawi (2002-2005) and Mozambique (2003-2005). The operation was supported by MFA.

In July 2003, MFA approved a request from Norcross for funding in the amount of NOK 27,4 million over three years to upgrade a number of additional M6 trucks (600), to be donated by the defence authorities[7]. In addition to fund the M6 upgrading, MFA has since 2002 supported

5 Much of the information in this section is taken from the Norcross internal review (2007), including the financial data. The report stresses that reporting by Norcross and its implementing partners does not separate out M6 from the TSU operations per se. Information and assessments provided should be read with this in mind. The TSU operations included the supply and operation of other vehicles such as Toyota land-cruisers as well as the M6 trucks.

6 The evaluation team has not found any clear distinction between TSU and TSP. Our understanding is that TSP was used to emphasize the combination of management, maintenance and trucks, at a point in time when TSU was commonly used to refer to the software i.e. the staff, competencies and systems needed to run humanitarian transport and logistics, excluding the vehicles. TSU has later come to mean both software and hardware.

7 This package also included workshop units (12), spare parts and costs of fuel filter etc up to 20.000 km per vehicle, also to be considered as "M6 inputs".

seven of nine TSU operations (Southern Africa, Haiti, Chad, Niger, Pakistan, Lebanon and North Korea)[8]. The cost of the Norwegian TSU inputs as per May 2007 is NOK 146,5 million. NOK 59 million comes from resources of Norcross and NOK 87,5 million from MFA (59,7 per cent), of which NOK 27,4 million was for the M6 upgrading.

The M6/TSU inputs are in principle supplied to third parties, who are formally responsible for implementation in the field. The implementing partners of Norcross have varied. They have included the IFRC, the ICRC, National Red Cross societies[9]and the World Food Program - WFP.

8 Norcross has also delivered TSU modules to Indonesia and Kenya, but without funding from MFA.
9 Also often referred to as the national society of the host country, the local Red Cross or the operating national society.

4 Global context

When assessing the interventions which are a focus of this evaluation it is important to have some idea of the challenges facing humanitarian actors and the framework within which these challenges are met. The "humanitarian actors" include governments, private corporations and organisations who share little beyond an interest in being active in humanitarian response.

This "coalition of whoever is involved" is faced with environments where the population is under great stress, infrastructure is commonly underdeveloped or recently destroyed, the affected population is often divided by latent or open conflict and societal copying mechanisms risk being overwhelmed.

The core challenges to be met includes:

1. Needs assessment – what are the needs and capacities of the affected population and which ones need to be met from outside.
2. What resources are needed, where can they be sourced from, what are the lead times, and how can they be financed: - both for the affected population (their needs) and for the implementation by humanitarian actors (to ensure that what is needed is available where it is needed when it is needed).
3. How can all of the different resources and actors be combined to have the largest possible reduction of suffering and mortality in the shortest possible time.

Over time a degree of consensus has developed regarding who these key "humanitarian actors" are. They include the governments of affected nations and their counterparts in bilateral relationships, some of the UN agencies (e.g. WFP, WHO, UNHCR, OCHA, various specialised and/or regional agencies), the components of the Red Cross/Red Crescent Movement (i.e. the IFRC, the ICRC, and the National Red Cross and Red Crescent societies), the more established INGOs and relevant host-country NGOs.

Each of these actors has an agenda of its own which colours the way it approaches the task of responding to a disaster. Common patterns include lack of coordination, a preference for high-profile sudden onset disasters, links to the overall political aims of the concerned organisation, a tendency to commit more funds than are actually delivered and an unwillingness to commit funds to systemic and long-term needs. There are initiatives taken to address the systems challenges, notably the humanitarian reform process. Within one part of this, the cluster approach, WFP has the lead role in the logistics cluster which has the responsibility to coordinate logistics and transport services, including developing global needs assessments and strategies. The process is only now beginning to have an impact on operational realities.

Leading disaster relief operations in such contexts involves constant compromise. Each of the nine interventions that the evaluation team has studied has involved such strategic compromises.

5 Findings

5.1 The start up process, Norway 2002 – 2003

In 2001 the Ministry of Defence (MoD) planned to phase out the use of M6 trucks due to old age and a need for more modern trucks. As usual when the Norwegian Defence phases out old equipment it attracts potential buyers or users of this equipment. When the Ministry of Foreign Affairs (MFA) brought it to the attention of MoD that the trucks could be of interest in humanitarian operations MoD agreed to the idea and instructed FLO to assist and prepare for a handover of 1 500 trucks.

In early 2002, MoD approached MFA, offering to hand over redundant M6 trucks to Norwegian NGOs for use for humanitarian purposes. An initial project proposal to MFA on the use of the trucks in Afghanistan was formulated by the private firm Norcontractors, who in turn brought the idea to the large Norwegian NGOs operating there.[10] Initially the Norwegian Refugee Council and Norwegian People's Aid (NPA) showed interest. The Norwegian Red Cross declined the offer at that point, as it was considered that using military equipment might be contrary to their policy of neutrality[11]. Norwegian Refugee Council's intention was to support their partner World Food Program in Kabul, who responded positively to take on a large (but not specified) number of trucks for their food distribution. NPA were interested in using trucks for Sri Lanka.

Over the following months preparatory work was undertaken by the various parties, including tenders for transport and the dialogue with the US Embassy, necessary under the provisions of US law due to the military background of the vehicles. Norwegian Peoples Aid (NPA), agreed to take on a coordinating role on behalf of the NGOs, and a first application was sent to MFA 28 June 2002, to ensure funds for the management of a pool of 1 500 M6s. The response from the MFA in August was positive, albeit no commitment of funds was made.

In a parallel development, Norwegian Red Cross had been alerted to the developing drought situation in Southern Africa by both WFP and IFRC. WFP had in vain tried to mobilise governments, donors and other actors to respond to the looming food crisis, which potentially threatened more than 12 million people.[12]

Informal consultations, initially between Norcross and WFP, later including IFRC, revealed that there was a great interest in a transport package, consisting mainly of M6. The intention was to use the trucks particularly for the "last mile", the distance between the last warehouse/ hub and the distribution sites.

The first operation was initiated and launched with impressive speed. Within the month of July, the trucks were moved from Trondheim to Oslo, upgraded and "demilitarized", stripping them of military items and painted white, and shipped to Durban, South Africa. The operation was made possible by a large amount of enthusiastic voluntary work and support by former military personnel, Norcross and private companies.[13] The most valuable contribution in terms of money saved, was the free shipping provided by Leif Hoegh & co. This transportation cost saving, which was a one-time opportunity in late July, was the main reason for the speed in the start up phase of the operation. Crucially, this rush to meet the transport deadline led to inadequate preparations. That in turn caused significant delays, costs and strained relations later on in the operation[14].

10 This section is based on documents found in the MFA archives. It is unclear whether this very first contact was facilitated by MFA.
11 The US supplied 400 similar vehicles to the Afghan National Army in 2003, justifying the concerns about the impact on perceived neutrality http://www.globalsecurity.org/military/systems/ground/m35.htm .
12 Based on interviews with the leading Norcross officials at the time and on Norcross web articles. Norwegian newspaper Aftenposten of 27 May 2002 refers to WFP spokesperson saying the organization had requested 69 million dollars, but only received 3 million.
13 Drivers from the M6 "support group" drove the trucks to Oslo, Norcross volunteers supported with food stations under way and upgrading of the vehicles in Oslo. The paint was donated by Jotun, and oil by Statoil.
14 Norwegian Church Aid (NCA) who also had a presence in Southern Africa, took part with 15 vehicles.

An enthusiastic mobilisation took place in the organisation. The campaign was fronted by Secretary-General, Jan Egeland, with the active participation of the President, Mr. Thorvald Stoltenberg. The board was kept informed continuously, and supported the operation throughout the whole period.

For the management in the Norwegian Red Cross, the operation was also seen as a way to raise awareness concerning the crisis in Southern Africa, as it was duly covered in Norwegian media, both during the preparation for departure and after the trucks reached Southern Africa. However, the main media launch in Malawi in September 2002 did not reveal that the trucks were still in Durban, as the lack of appropriate preparations had now led to some very complicated paper-work in South Africa. The media campaign was defended as necessary, as both WFP and Norcross needed to mobilize further resources for the response to the crisis.

The MFA did not know about the plans for the Southern Africa operation until a meeting on financing of the operation 10 July, after Norcross had agreed to the transfer of the truck ownership with FLO, to the shipping arrangements with Hoegh and had reached an end user agreement bilaterally with the US embassy. Although positive to the project (noting the past experience with Norcross ability to implement in an assuring way), MFA requested a coordinated approach among the NGOs, for taking out military assets, end user agreements with US authorities, tendering for transport/shipment, as well as coordinated applications for project support.[15]

In September 2002, after MFA had taken the initiative to make sure everybody, including Ministry of Defence, NPA and the other NGOs were in agreement, Norcross was requested to take on further coordination of the project[16].

Over the next year, a concept of a common transport preparedness pool was developed between the Norwegian NGOs, in dialogue with MFA. In July 2003 Norcross, on behalf of the main NGOs, NPA, NCA, NRC and Norcross, applied for a three year funding of a common preparedness transport pool of 900 vehicles for Norwegian and International humanitarian organisations. In the application Norcross refers to evaluations of the Southern Africa operation which concluded that the operations had been a great success, with IFRC and WFP estimating that 80% of the targets were met.[17]

The concept, scope and purpose of the pool was discussed thoroughly within the MFA, with the engagement at the political level, particularly the then Minister of Development Ms Frafjord Johnsen, and the Vice Minister of Foreign Affairs Mr. Helgesen. The responses were mainly positive, and both agreed to the overall idea and purpose. However, several critical issues were raised by the Minister, who thought the scope of the operation was exaggerated and that the project would benefit from larger formal participation by multilateral/UN agencies.

The final grant was 27 million NOK for 600 vehicles. These were to be distributed as follows: NRC 255 vehicles, mainly for WFP in Afghanistan and Angola, NPA 50 for South Sudan, NCA 100 for South Sudan, and Norcross 50, with the remaining 150 vehicles.[18]

NPA received 10 Magirus trucks from the Norwegian Defence that was sent to Sudan but no M6 trucks. NPA was interested to take on M6 trucks and the role of coordinating and managing the total of 1500 M6 trucks but decided not to as they did not have the capacity nor got the funds form MFA to do so. NPA also backed out partly due to Norcross starting to request and receive trucks outside the first joint initiative.

Based on the perceived success of the Southern Africa operation Norcross offered similar resources in a series of interventions:

15 Letter from MFA Hum section to the Ministry of Defense. Letter of 10 July 2002.
16 Although annoyed with the process and the confusion, NPA assured MFA that it was fine with leaving the job to Norcross. Letter NPA to MFA 9 October 2002. Confirmed in interview.
17 Interviews with senior Norcross and MFA staff also confirm that WFP in particular was very enthusiastic about the operation, and made it a major point in all bilateral meetings between MFA and WFP.
18 Norcross later withdrew their request for vehicles, as WFP had communicated that they would not be able to manage the operation due to lack of funds.

Summary of M6 interventions over time

Operation	Tonnes distributed	No. of M6s dispatched	Tonnes distributed per M6 dispatched	M6s operational/ in reserve	No. of M6s scrapped	% of trucks scrapped
Haiti2004	8300	32	*259*	13	19	*59%*
Indonesia 2005-2006	44113	98	*450*	94	4	*4%*
Kenya 2006	13900	50	*278*	45	5	*10%*
Lebanon 2006	540	27	*20*	-	-	-
Niger 2005-2006	17000	70	*243*	30	40	*57%*
North Korea 2004	415	5	*83*	3	2	*40%*
Pakistan 2005-2006	419	40	*10*	38	2	*5%*
Southern Africa 2002-2005	133406	203	*657*	37	166	*82%*
Chad 2004-2006	20000	29	*690*	22	7	*24%*
Total	238093	554[19]	*430*	282	245	*44%*

Source: Norcross internal evaluation, May 2007

143 M6 trucks have been completely or partially upgraded and were available in warehouses in May 2007. Norcross intended to keep them as a disaster response capability in the locations they were stored i.e. 69 in Norway, 14 in Dubai, 30 in Niger. The future of an additional 30 in Indonesia remains to be decided. These trucks can be deployed at a reasonable low cost as they mainly only need some small services before being operational (might need to replace items like batteries, tires etc that wears down even when not in use and change oils before becoming operational).

Operational trucks in the field had been donated to the WFP (Mozambique and Haiti), the Chad Red Cross, North Korean Red Cross and Kenya Red Cross. Norcross has 380 M6 trucks remaining from the MoD donation in store in Norway. These are trucks that have not been upgraded and will need an estimated upgrade of NOK 27 100 each,- (average cost for upgrading an M6 truck) each to become fully operational indicating a total cost of NOK 10,298 million,- if all 380 M6 trucks were to be deployed in future operations.

Different exit strategies were discussed from the outset of the first operation. Norcross preferred exit strategy has been to scrap all M6 trucks upon end of operation. This has not been communicated clearly to all implementing partners causing expectations (in some cases) and concerns (in other cases) as well as plenty of discussions and misinformation. In some cases, judged on a case-by-case basis, and with set assessment criteria, trucks could be handed over to operating national societies (e.g. Kenya) and become a part of a disaster preparedness programme.

19 In total 527 trucks were dispatched, but 27 of them were used in two operations. The trucks that were sent to Lebanon came from the warehouse in Dubai, where they had been transported after the end of the operation in Pakistan.

5.2 The interventions; strategic, institutional and operational issues

Intervention	Strategic	Institutional	Operational
Southern Africa 2002-2005	Overall humanitarian sector consensus that serious food deficit situation was developing. Bad infrastructure beyond main roads made some areas inaccessible, especially in wet periods. Private sector likely to be able to handle bulk, long distance transport needs but unwilling or unable to go to certain areas. Significant proportion of the population living with HIV/ AIDS with increased vulnerability to nutritional deficits and weakened capacity to cope with disaster. Early needs assessment made by regional RC structures took existing local RC capacity as point of departure for defining potential RC role and therefore arrived at low target for distribution. Global players took overall humanitarian needs as point of departure for defining RC role and mandate. This led to new assessment with massively expanded targets and strategic alliance with WFP. Key stakeholders in RC Movement and UN system saw clear need for special transportation capacity and could identify no realistic alternative to M6s. These were therefore welcomed. Operations set up differed from country to country as per assessed needs and local context. Operations adapted to changing needs, including relocating trucks between countries.	The coordination between Red Cross (RC) and WFP worked very well based on a division of labour where RC delivered transportation services as requested and (mostly) paid for by the WFP. WFP highly appreciative. Serious disconnect within RC between relief and development functions. Regional delegation (coordination and support function for the regional National Red Cross Societies) of the IFRC by-passed by Gva based Head of Operations (refer needs assessment process described at left). Mixed, initially quite negative, response from the national RC societies in the host countries. Little, if any, capacity building of national society structures. Operation run as separate and parallel to existing RC structures. Operation seen as pilot project with intention to develop new coordination and ways of working to address humanitarian transportation needs. Given this explicit intention there was very limited investment in systematic documentation and learning. Given the scale and conceptual newness of the operation reasonably rapid and serious action by IFRC to address overall coordination problems and decrease long term damage to RC relations and structures in the region. Serious exit strategy problems.	Initial major problems and serious delays related to lack of understanding for regional realities and institutional structures, including basics such as customs clearance rules and procedures, need to coordinate with host national RC societies etc. Initial serious problems with personal conduct of Norwegian staff without RC background or training sent out to set up the operations. Effective solution to staffing challenges by utilizing regional private sector resources in appropriate and creative ways. Some instances of inappropriate utilization of the trucks for long haul or good road transports. Overall good maintenance and fleet management. Overall good technical training for drivers, mechanics, workshop managers and fleet mangers. WFP training in “misuse of power” for all drivers. Overall good relations IFRC - WFP. Examples of operational coordination difficulties, some related to personalities, many related to systemic differences (e.g. financial systems, planning systems, decision-making culture etc) between the organisations. These took time to clarify, even in the cases where the differences were possible to bridge.

Intervention	Strategic	Institutional	Operational
Haiti 2004	The purpose of the operation was to prevent further deterioration in the food security of the most vulnerable groups affected by civil unrest in the North; North East and metropolitan areas of Port au Prince. In 2004, the anti Aristide rebel group Front de Résistance de l'Artibonite took control of the Haiti's fourth largest city of Gonaives on 5 February. The revolt spread across the north and west and twelve cities fell under rebel control. The situation then became difficult for humanitarian operations, both for security and practical reasons, as the most of the roads were blocked.	The responsibility for the fleet was handed over to WFP at the end of the operation.	32 vehicles were dispatched by sea from Norway in 2004. WFP happy with the intervention.
North Korea 2004	North Korea is a country with limited disaster response capacity and repeated flooding situations. Red Cross is one of the few foreign organisations with a long term presence. Several key stakeholders are of the opinion that Red Cross activities in North Korea have a value in and of themselves and cannot meaningfully be assessed according to normal operational criteria. The evaluation team tends to agree.	The trucks increased the capacity and improved the image of the North Korean Red Cross Society. The national Society hopes to use maintenance capacity developed to earn income by selling maintenance to other humanitarian actors.	Three of the five trucks are still operational. Trucks are used as intended in e.g. floods disaster situations. They have also been used in day-to-day activities of North Korean Red Cross.
Chad 2004-2006	65 000 refugees had fled the conflict situation in Darfur. Reports indicated that the fighting in Darfur province was intensifying and additional cross-border movements were feared. The refugees were spread out along a 5 - 600 km long border in very inaccessible regions. All trucks sent by plane due to long distances from any sea port. Due to the bad infrastructure in the areas of operations the M6 trucks did a very good and important job impossible for any local trucks to do.	Chad RC involved in the operation as implementing partner. After Norcross left the quality of maintenance and fleet management has declined. Most of the CRC staff trained by Norcross have left CRC or have new positions not involving the M6 trucks. Overall good technical training for drivers, mechanics, workshop managers and fleet mangers	Overall good maintenance and fleet management during the Norcross delegate's period.

Intervention	Strategic	Institutional	Operational
Indonesia 2005-2006	An earthquake off the western coast of north Sumatra caused a series of tsunamis that left huge human losses and almost total devastation along hundreds of kilometres of coastline. Affected areas were only possible to reach by air and some limited sea transport. This was a complex, post-conflict situation with massive humanitarian response. All stakeholders were in agreement as to usefulness of this intervention. There was consensus that during the first twelve months no transportation alternative existed, given the state of the infrastructure along the west coast. Government coordinating body appreciative of RC willingness and capacity (dependent on the M6s) to take on shelter programmes in the most inaccessible areas in the transition period following emergency operations. Same body was more critical of RC response slowness and costs during post-emergency time period. Unclear if these related to inaccessibility of accepted areas or "RC centralised way of working". Use of ex-military trucks in this post conflict complex emergency not seen as problematic by anyone the evaluation team has been in touch with.	The intervention has been appreciated, yet seen as IFRC business, by the Indonesian Red Cross (PMI). The entire fleet operation has been run by the IFRC without PMI involvement or capacity development. This was a conscious decision based on the PMI and its partners agreeing that the PMI did not have the capacity to deal with that as well, at this point in time. The use of the M6s has been coordinated with the activities of the PMI in the area. During discussions regarding exit strategy, still on-going, PMI has made it clear that they do not foresee having use for, nor capacity to maintain, a fleet of M6s. Exit strategy not yet agreed upon by stakeholders. Alternatives being discussed include re-export, scrapping and the establishment of some kind of regional disaster preparedness resource in the form of a fleet of limited size.	Initial problems with gaining entry to the area of operations i.e. customs and clogged infrastructure delayed start-up until approx 3 months post tsunami. Thereafter, the use of the M6s in this operation has been a textbook example of how to use this resource well. Good maintenance, good training, good documentation, good fleet management. Appropriate use of trucks in areas where they were the only vehicles to get through for a full year, post- tsunami. Gradually withdrawn as infra-structure improved. Logistically replaced helicopter operations. Operations on the island of Nias inappropriate due to the damage to infrastructure caused. RC warned about this risk yet went ahead anyway.
Niger 2005-2006	Countries in the Sahel region experienced bad locust invasion coupled with drought which left the region with a severe food crisis. Reports indicated millions of people threatened and children dying. 20 M6 trucks were sent by air and went straight into operation while 50 trucks were sent by sea to Benin and overland from there. Clear case of oversupply with delegates "chasing work" for the fleet.	Overall good technical training for drivers, mechanics, workshop managers and fleet managers. Plans for regional preparedness set-up? Lack of clarity regarding roles and inadequate communication has contributed to differing opinions between stakeholders as to what kind of set-up, and external support, Niger RC can expect post-operation.	Overall good maintenance and fleet management. Unclear roles and responsibilities between Niger RC, Norcross, IFRC and WFP contributed to inefficient use of the fleet.

Intervention	Strategic	Institutional	Operational
Pakistan 2005-2006	A massive earthquake struck Pakistan's North West Frontier Province and both Pakistan and Indian administered Kashmir. The earthquake killed nearly 75,000 people and seriously injured a similar number. Major damage to buildings and roads. More than 1,000 aftershocks of magnitude 5 or greater were recorded in the following three weeks. Some of these aftershocks provoked further landslides. Pakistan has a fairly well developed road and transport sector. The army is well organised and controls all large scale disaster response activities. National resources were overwhelmed and there was severe damage to roads. However, with few exceptions overall road conditions did not motivate the use of specialised trucks like the M6. The decision to send the M6s was based on the fear that winter was approaching and winter conditions would have made them much more relevant. The evaluation team has not been able to clarify why almost double the amount of trucks needed according to the assessment were sent.	Despite initial resistance to the suggestion, Pakistan RC did confirm the decision to request the trucks. The trucks were an early and visible sign of Red Cross capacity and action. People interviewed differ as to whether this was a positive or negative for the Society. Pakistan RC could not legally and did not want to keep the trucks post-operation.	The fleet was run by Norwegian delegates seconded to IFRC. Initial coordination difficulties were decreased with the arrival of staff with Red Cross training/experience. The trucks were re-exported to Dubai. There was a miscommunication regarding whether maintenance was to be done in Pakistan prior to departure or in Dubai on arrival. This later led to delays and additional cost in connection with reusing the trucks in the Lebanon operation.

Intervention	Strategic	Institutional	Operational
Kenya 2006	Overall humanitarian sector consensus that serious floods and drought are recurrent events. Inaccessible villages in the Northern, Western and Eastern provinces beyond main roads. Especially during the rainy season. Private sector is not interested and able to provide adequate transport. It is able to cope with long distance bulk transport needs but unwilling to invest in specialised transport resources for inaccessible areas in the North. Target groups included IDPs, hospitals, people affected by floods and drought. Needs assessment made by Kenya RCS and confirmed by Kenya Gov and other stakeholders e.g. UNHCR. KRCS has a recognised role in the national disaster preparedness structure. The long term plan was to create disaster prepared-ness by building capacity within the KRCS. KRCS has been supporting various implementing organisations by providing transport.	There were initial coordination difficulties between IFRC, Norcross and KRCS. This later improved. Initial setup was paid by the stakeholders. Transport costs are now recovered under the contracts made. Initially long debates between IFRC Logistics, GVA, Norcross and KRCS SG hampered the start up of the operation. Capacity building of the NS has been fruitful. The trucking operations have lifted the NS status and capacity. KRCS has been able to reduce response time for disasters drastically. Fundraising has improved the financial situation of the KRCS due to the PR effect of the trucks and their services. The key role that Kenya RCS itself has played in this should be noted.	Initial major problems and serious delays related to lack of understanding for the needs and questioning of the needs assessment. Some of the expatriates did not provide ideal support to their counterparts. Changing of systems by each expatriate interrupted the learning process of national staff members. Overall good maintenance and fleet management. Overall good training of staff.
Lebanon 2006	Following the Israeli invasion there was serious damage to infrastructure in Lebanon. The length of hostilities was impossible to know and the trucks were brought in primarily as a preparedness measure.	The use of the trucks did not significantly affect the ICRC. At the end of the operation it was decided to donate the trucks to the Lebanese civil defence. The evaluation team has no data as to their possible impact on Lebanese government structures.	The M6 trucks arrived in country only after the peace. Arrival of the trucks was delayed due to lack of maintenance of the trucks after the Pakistan operation. The preparations in Lebanon by Norcross and ICRC ensured a fast and effective custom clearance, registration and operational start. The M6 trucks were used in some distributions but the need for off-road trucks quickly vanished.

5.3 The interventions; process, job done and outcomes

Intervention	Process	Job done	Outcomes
Southern Africa 2002-2005	Southern Africa – situation assessments by the IFRC, a request for a TSP was included in the revised appeal 12/02 of 22 July 2002. Norcross contacted WFP in Rome asking whether there was any need for the M6s. In response WFP requested Norcross to take responsibility for setting up and running a TSP including 200 trucks. The requests were not documented in writing, but there are several letters between the organisations that refer to them. There were serious differences of opinion within the Red Cross Movement as to the usefulness of this resource, and as to the compatibility with Red Cross capabilities and mandate. However, it is clear that the key decision-makers in IFRC and WFP were in agreement that the Norcross/MFA offer was *the best available* solution to a very pressing transportation challenge. The evaluation team has not found documented needs assessments. Serious procedural and communication mistakes were made causing delays and giving the intervention a bad reputation to start off with. The transfer of trucks was rapid and cheap in terms of (donated) shipping but ill-prepared causing costs and delays. WFP overall highly appreciative. Serious disconnect within RC between relief and development functions. Regional delegation (coordination and support function for the regional National Red Cross Societies) of the IFRC by-passed by Gva based Head of Operations. Operation run as separate and parallel to existing RC structures. Little, if any, capacity-building of national society structures.	250-300 000 tonnes of food distributed. Number of beneficiaries: in IFRC appeal, estimation of 1,3 million, but many more people reached in the 4 countries through the years. Countries :Lesotho, Mozambique, Zambia, Malawi, (Zimbabwe – TSP but not M6) Zambia: 356 000 beneficiaries reached. 5 sub office locations: Mungo, Lusaka, Serenje, Choma, and Chipata. 40 217 tonnes of goods transported. Lesotho: 78 360 tonnes of food for the Emergency programme and School Feeding. 10 230 households, 51 148 beneficiaries reached from Jan. to April 2004. Malawi: Number of Distribution points: 1700 FDPs, 257 000 beneficiaries are being reached. In Malawi TSP contributed to 22-38% of the success of WFP operations. Average of 2 - 4 tonnes per Food Distribution Point in certain activities. Very high rate of success, operational flexibility. 81 tonnes during July 2003 – April 2004. 1776 tonnes delivered in Sept. 2004. Mozambique: 1 000 tonnes moved over 27 000 km. Implementation of the TSU through WFP directly, but also international and local NGOs. Some trucks were delivered through Norwegian Church Aid. Hence a broad diversity of technical and financial capacities of implementing partners.	Decrease of mortality rates. Improvement of the food security situation in the country with the maintenance of a high nutritional status. Prevention of movements of population. Anecdotal evidence that home based care programmes for PLWHA were extended due to new transport capabilities through M6s.

Intervention	Process	Job done	Outcomes
Haiti 2004	The intervention was based on a request from the WFP, documented in writing in the Fax from the WFP of 3 March 2004: "Request for Transport Support Package for Haiti."	The TSP was used in operations aiming to assist 140 000 people affected food shortages following political unrest. The trucks were also used to respond to the June (South East, West) and September floods.The trucks distributed approx. 8 300 tonnes for a budget of USD 7 972 million.	Lacking data.
North Korea 2004	The intervention was formally based on a request from the North Korean Red Cross in January 2004 for five M6s. Trucks and related activities included in IFRC annual planning, but more as an afterthought.	60 000 (true?) tonnes of food transported on behalf of a private Australian donor. In total 415 tonnes of disaster relief supplies and building materials distributed.	Lacking data
Chad 2004-2006	An IFRC needs assessment took place 31.10-16.11.2003 resulting in an appeal in Dec of that year, requesting 20 M6 trucks. Norcross sent a consultant to assess the needs, local transport capacity, road standards etc. This assessment also found the M6 trucks to be suitable for the needs and Norcross (General Secretary and Director of International and National Assistance) approved the operation on 10 December 2003. In the IFRC revised Appeal 9 more M6 trucks were requested.	Transport of 48 000 refugees from the border of Sudan Transport of 20 000 tonnes of food and non-food items	48 000 refugees got increased security. Nutrition level of refugees in the supported refugee camps increased.
Indonesia 2005-2006	The intervention was formally based on a request from the IFRC. No written documentation, but in our letter of 1 January 2005 Norcross confirms that they will respond to the request with 80 M6s (60 to Indonesia and 20 to Sri Lanka). In an e-mail of 3 January 2005, Rob McConnell of the IFRC writes that the field operation in Indonesia has accepted the 60 M6s. An e-mail from Josse Gillijins of the IFRC dated 2 November 2005 requests that a further 35 M6s be sent to Banda Aceh.	In 2005/2006 a total of 11 028 truck loads transported 44 113 metric tonnes of disaster relief and shelter materials.	The operation provided a total of 650 000 recipients with disaster relief supplies and 60 000 recipients with shelter materials.

Intervention	Process	Job done	Outcomes
Niger 2005-2006	The intervention was formally based on a request from the IFRC for 70 M6s, documented in writing in the appeal. This came in response to a proposal by Norcross in a letter to the IFRC on 5 July 2005 expressing concern about the situation in Niger and the IFRC's failure to respond to it. Norcross carried out a logistics assessment at the beginning of July 2005. The number of trucks sent was more than double the number identified as needed in the original needs assessment.	Transport of 18 656 tonnes of food (some other items but mainly food)	Saved lives and avoided displacement of affected population.
Pakistan 2005-2006	The intervention was formally based on a request from the IFRC in Pakistan, documented by an e-mail from the IFRC dated 13 October 2005. The Pakistan RC/IFRC did request the trucks, based on a needs assessment made by a joint FACT/RDRT[20] team. The FACT team was led by Halvor Lauritsen. Norcross decided to send more than double the number of trucks requested. The winter turned out to be much milder than feared. The following year the trucks were re-exported to Dubai. Some of the same trucks were later to the ICRC for use in Lebanon. There is consensus that far too many trucks were sent.	Limited use. Data not separately available for M6 trucks.	Delivery of relief goods, outcome unknown. Anecdotal evidence of road damage. Some interviewees felt the trucks should never have been sent, others that they would have been useful a normal winter (and even the following winter when they had been reexported). Some mention that the PRCS most likely gained from the visual impact of the trucks in their public relations efforts.

20 FACT: Field Assessment and Coordination Team composed of experienced disaster response people from the IFRC network.
RDRT: Essentially the same as a FACT but recruited from the region with in-depth understanding of local conditions.

Intervention	Process	Job done	Outcomes
Kenya 2006	The intervention was based on a request of the Secretary General of the Kenyan RC, who himself had been key in developing the strategy for this intervention. KRCS and key stakeholders in RC Movement saw the need for special transportation capacity and could identify no realistic alternative to M6s. These were therefore welcomed. An assessment was also carried out by Norcross WatSan delegate 13-17 February 2005. The operational set up is different from previous deployment because of the capacity build within the KRCS. Needs were not only defined by the immediate needs but also by the future disaster preparedness strategy.	6 400 tonnes of food and disaster relief supplies distributed (including 4.5 million impregnated mosquito nets), as well as 7 500 m3 of water. 32 000 people were also transported from the Somali border to refugee camps. The operation could also be seen as an income generating programme for the Kenya RCS. Current external users, who pay for the service delivered, are UNHCR and Uganda RCS. Service is highly appreciated. Ongoing operations in Uganda and along the Somali border are proving that the concept is positive.	Improved nutrition. Lower incidence of malaria likely. Anecdotal evidence of decreased tensions in latent conflict. Anecdotal evidence of better protection for women seeking access to resources distributed.
Lebanon 2006	Intervention formally based request from the ICRC dated 31 July 2006. ICRC assessed that southern Lebanon would only be accessible using all-terrain trucks. Norcross informed the ICRC of the availability of a TSU.	Transport of 540 tonnes of food and non-food items	Lacking data.

5.4 Cross-cutting issues

It is possible to argue that the use of the M6 trucks should be regarded merely as a service provision to the organisations running the programmes in which they were used. Arguing in that fashion would absolve the Norwegian Red Cross from the responsibility for the cross cutting issues. Given the size, cost and impact of the M6 interventions this is not reasonable. In the following sections the evaluation team has considered two aspects of each cross cutting issue a) the extent to which it was considered in designing the intervention and b) intervention outcome in terms of each cross cutting issue.

5.4.1 Local context

"Good assessment practice is about having enough relevant information on which to base sound analysis and judgements about response"[21]. Experience and documented best practice has repeatedly and convincingly shown that well-designed interventions are preceded by systematic and documented needs assessments as these are a precondition for effective relief interventions. The argument that in sudden onset disasters the need for rapid response precludes systematic and documented needs assessments is quite simply untrue. Norcross has repeatedly launched major M6 interventions without needs assessments of reasonable quality. However, they are not alone; ALNAP's 2006 review of Humanitarian Action noted that: "n*eeds assessment remains the fundamental flaw of the humanitarian system"*[22]. This is supported by the Tsunami Evaluation Coalition's study on needs assessments[23].

21 Darcy, J., & Hofmann, C.-A. (2003). According to need? Needs assessment and decision-making in the humanitarian sector. London: Overseas Development Institute. (Humanitarian Policy Group Report No 15)
22 Vaux, T. (2006). Proportion and distortion in humanitarian assistance. In J. Mitchell (Ed.), ALNAP review of humanitarian action: Evaluation utilisation (pp. 35-88). London: ALNAP (page 77).
23 de Ville de Goyet, C., & Morinière, L. (2006). The role of needs assessment in the tsunami response. London: Tsunami Evaluation Coalition.

When considering the use of special transport resources such as the M6, the needs assessment required includes a definition of the transport task to be undertaken, an assessment of available transport alternatives, of institutional infrastructure including coordination mechanisms, of maintenance resources and, last but not least, an assessment of the appropriate size of the resource needed to meet the identified needs.

In most cases no adequately documented assessment of local context exists for the M6 interventions. There is clear evidence that experienced relief and transport managers have made rapid situation assessments, including transport needs assessments, based on the collective experience of the people in the room at that time. While such experience is necessary for appropriate programme design in such situations, the analysis such people are able to make is dependent on the quality of the data upon which they base their decisions. Given the long lead times of these interventions the evaluation team can see little evidence to suggest that major damage would have resulted from waiting an additional few days to get necessary input from the field regarding everything from customs rules to terrain and local market specifics.

There is a clear pattern of ignoring the local context even in terms of the needs assessments that were actually made. Norcross repeatedly sent much more trucks than were needed. In some cases this may have been motivated by a wish to supply the operation with additional spare parts, with preparedness for potentially bad seasonal weather or with an expanded preparedness roll over the medium term. Where they have existed, such ambitions have not been agreed with, or even clearly communicated to, key implementing partners.

Some interviewees in policy related positions have expressed a worry that the military background of the trucks could potentially impact on conflict dynamics in areas operation. The evaluation team has found no evidence that this has been the case. On the contrary, all interviewees in operational positions that had an opinion on this issue have emphasised that the military background of the vehicles has not been of importance.

5.4.2 Human resources

While not necessarily documented, there is clear evidence that human resources have been attended to in the interventions. The human resource challenges differed from operation to operation. In the rush to initiate the Southern Africa intervention, Norwegian Red Cross recruited people without Red Cross experience and there were serious problems with the personal conduct of some of the staff sent out. However, these problems should not obscure that there were also staff members who did an excellent job under very difficult circumstances.

In southern Africa, 260 drivers were employed through a South African employment agency. Normally locally hired staff is employed by the IFRC or the national society directly. Such staff received suitable training and, in general, rapidly developed the capacities necessary to fulfil their duties.

Key staff members such as workshop and fleet managers were supplied by Norwegian Red Cross. Over time local counterparts were recruited and trained. Overall, the technical and basic management skills of the people sent into the field have been good to excellent. There was however also examples of people sent to the field without appropriate skills profile e.g. being tasked to manage fleets while their skills profile would have been more appropriate for workshop management or mange workshops when their profile was that of a mechanic.

The mismatching may in part be a consequence of the difficulties of recruiting the large numbers of staff with both the appropriate skills and a willingness to work under harsh conditions. The programme has been plagued by high levels of turnover creating a loss of institutional memory as well as shifting working models, training preferences etc. This in turn has lessened the capacity building impact of the programme as local staff members have had to adapt to new processes and ways of working.

Several sources indicated that ability to document and analyse fleet operations in order to ensure overall efficiency and operations monitoring was an area within which Norwegian Red Cross needed to upgrade the competence of the staff recruited.

Overall, there was not enough, and not broad enough, capacity building. What did take place was narrowly focussed on fleet operations related tasks. Partner organisations cannot, or do not want to, fund M6 fleet operations or fleet preparedness[24]. The capacity building needs of the operation national societies were therefore more related to overall disaster preparedness and disaster response management. Should Norwegian Red Cross choose to expand their capacity building ambitions beyond the basics of training drivers, workshop managers, mechanics and fleet managers, the organisation also needs to consider the profile of its delegates. Currently there is a narrow competence base with significantly more doers than documenters, trainers and thinkers.

Most interviewees felt that the complexity of fleet maintenance and management, in the presence of strong societal pressures related to this large resource, requires the presence of an expatriate workshop or fleet manager. They should be tasked with supervising the team and ensuring that control over the trucks and quality standards are kept up. This implies somebody from outside the local social structure, not necessarily a Norwegian or a westerner.

5.4.3 Protection

Protection: A concept that encompasses all activities aimed at obtaining full respect for the rights of the individual in accordance with the letter and spirit of human rights, refugee and international humanitarian law. Protection involves creating an environment conducive to respect for human beings, preventing and/or alleviating the immediate effects of a specific pattern of abuse, and restoring dignified conditions of life through reparation, restitution and rehabilitation[25].

None of the M6 interventions were in active war zones (as "peace broke out" in Lebanon just after their arrival). Meanwhile, it may be argued that most of the interventions were in response to complex emergencies or implemented in post conflict situations, where a protection approach would be relevant – to differing degrees[26].

The protection dimension of a transport operation is mostly of indirect nature, as trucks are used as technical support for programs as food distribution and distribution of non-food items. The potential protection impact (positive or negative) will have to do with how the programs are designed and whether the programs have taken vulnerabilities, risks and rights into account. Of particular relevance to M6 interventions is the impact of how distribution points have been chosen, the degree of risk entailed in trying to reach them etc. In the gender section below anecdotal evidence improved protection due to the use of the trucks is presented.

A thorough evaluation of the protection aspects of the various operations was far beyond the scope of this evaluation. However, several of the interventions have clearly contributed to protect people from suffering and abuse. The UNHCR operation in Chad is probably where the M6 operation had the clearest direct protection impact. The trucks transported people who were highly exposed to direct attacks and abuse at the borders to safer camps within Chad.

It is also possible to use a broader definition of protection in which is included the protection against violence, hunger and suffering induced by natural disasters.

Irrespective of which definition is chosen, the evaluation team finds that the M6 interventions have undoubtedly contributed to protecting affected people from suffering induced by events beyond their control.

5.4.4 Participation of primary stakeholders

The primary stakeholders are the beneficiaries. It is clear that they have not been involved in the decision-making processes leading up to the M6 interventions. Meanwhile, it may be questioned whether the beneficiaries have the technical competence needed to assess whether M6s or other forms of special transport capacity are the most appropriate to meet their transportation needs.

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24 The Kenya Red Cross is a notable and successful exception.

25 OCHA. (2003). Glossary of humanitarian terms in relation to the protection of civilians in armed conflict. New York: Office for the Coordination of Humanitarian Affairs

26 Chad – Complex emergency next-door , Haiti – Complex emergency, Indonesia – Aceh – post-conflict situation, North Kenya, Lebanon post-war but still conflict, Malawi, Mozambique, Niger, North Korea, Pakistan – elements of a complex emergency….

A more reasonable level of ambition for primary stakeholder's participation would be that they can participate in defining the contents of food and non-food relief packages delivered the pattern of distribution points, the selection of most vulnerable people within the community etc. The TSU staffing pattern and structure is not designed to include the capabilities necessary to stimulate such participation.

However, the evaluation team has seen multiple, both documented and anecdotal, examples of implementing partners (WFP, IFRC, national societies, NGOs) using established methods to stimulate such participation.

5.4.5 Coping strategies and resilience

These issues have not been considered in any of the TSU/M6 documentation that the evaluation team has reviewed. None of the interviewees have shown an awareness of these issues. However, we do know from broader research that food aid becomes part of the coping strategies of families that have access to it.

5.4.6 Gender

The term gender refers to the social differences between females and males throughout the life cycle that are learned, and though deeply rooted in every culture, are changeable over time and have wide variations both within and between cultures. "Gender" determines the roles, power and resources for females and males in any culture. Historically, attention to gender relations has been driven by the need to address women's needs and circumstances as women are typically more disadvantaged than men. Increasingly, however, the humanitarian community is recognizing the need to know more about what men and boys face in crisis situations[27].

Most stakeholders are uninformed about gender issues and how trucking operations can be analysed in gender terms. Many get defensive when the issue is raised. The tendency is to interpret gender issue as only related to the staff gender profile. The evaluation team has found no documented reflections regarding gender in Norcross documentation from these interventions.

Again, as the TSUs are a service provided to operational agencies other implementers, it is those operational agencies that have the greatest interface with gender. The evaluation team has anecdotal evidence that a pattern of distribution points closer to the villages is relatively more important for women. Less physical strength, risks of abuse, and the special responsibilities related to child care lead women to benefit relatively more from distribution closer to their households. Distribution through airdrops is seldom compatible with orderly and equitable end-user distribution, again discriminating against the disadvantaged. Women have also reported that travelling in the bush leaves unaccompanied women at risk of rape, the incidence of rape reportedly declined with the use of the trucks in North Kenya.

Leaving programme impact aside, gender is still an important issue for the TSUs. Gender deals not only with the staff profile in the TSUs, but also with how the TSUs and their staff dealt with both men and women. As with any relief operation, one of the concerns must be preventing sexual exploitation specifically through the use of relief assets. There was a particular effort in the Southern Africa response to avoid such problems and over 5 000 agency staff were trained on the issue[28]. The drivers employed by the TSU in Southern Africa were included among the trainees, to the extent that they each received one day's training from WFP.

5.4.7 HIV/AIDS

The evaluation team has found no documented effort to analyse the potential links between HIV/AIDS and TSU operations.

People living with HIV/AIDS are less able to travel to distribution points or to pay others to transport food for them, due to their reduced earning power and higher medical costs. For

27 From IASC. (2006). Women, girls, boys and men: Different needs - equal opportunities: IASC Gender Handbook in Humanitarian Action. Geneva: Inter-Agency Standing Committee (page 1).

28 Cosgrave, J., Jacobs, A., McEwan, M., Ntata, P., & Buchanan-Smith, M. (2004). A Stitch in Time? Independent Evaluation of the Disaster Emergency Committee's Southern Africa Crisis Appeal July 2002 to June 2003 London: Disasters Emergency Committee, (page 41).

such people, the nearer that food is brought to their door the more likely it is that they can collect it. This is a situation where the ability of the M6 to reach locations that other trucks are not able to reach can have a real impact.

Some of the interviewees strongly believe that the use of the trucks, by lessening the nutritional impact on PLWHA contributed to better than expected agricultural production in hard hit areas. The evaluation team has not been able to confirm this from other sources.

The evaluation team was informed about several examples of the trucks being used for deliveries home based care programmes for PLWHA. One interviewee regarded the low carrying capacity of the trucks as positive as the programmes needed small deliveries in points where existing roads were sensitive to heavier trucks. There is anecdotal evidence that partner organisations have expanded such programmes thanks to access being given to areas that could not be reached prior to the use of the M6s.

Truck-drivers are a high-risk group for HIV/AIDS due to their long absences from their families and their use of commercial sex-workers. The team saw no evidence of any special measures to deal with this issue in the support provided by Norcross to the TSUs. In contrast, the evaluation team was informed that, Kenya RC gives its staff one day per month HIV/AIDS awareness raising.

5.4.8 Environment

There is no clear documentation of the air pollution released or the air emission level of the trucks. Anecdotal information based from visual observation said that the smoke produced by the trucks was sometimes thicker than other trucks. The thicker smokes produced may be due to the combustion of lubricating oil in the engine due to leaking caused by aging, or it may be inherent in the engines due to their being designed not just to use diesel but to use a range of fuels.

Other important potential environmental impact is on the energy utilization and its efficiency. Truck engines design has improved significantly in the last 20 years and modern truck engines can have specific diesel fuel consumption of less than 190g per kWh. The M6 have two problems meeting environmental standards: first they were designed when specific fuel consumptions were much higher; second, they have a multi fuel engine, when means that the engine has to be designed to operate with a range of fuels, making them less efficient with any one fuel.

The comparison may not be as damaging towards the M6s as it first appears. Modern trucks are equipped with emission filter and catalysers which work only with low-sulphur diesel. Using high-sulphur diesel destroys the emission filter and the catalyser. Fuel available in the disaster prone areas where the trucks have been used is often of low quality. This leads modern trucks' particle filter to clog rapidly causing their emissions to increase significantly compared with producer specifications based on European fuel qualities.

Disposal of used trucks raises particular environmental issues. Consideration of such issues is a normal part of the exit strategies that we have noted did not exist when interventions began. However, Norcross has noted these problems and addressed them seriously. In some cases the trucks have been transferred to partners. In the other cases the disposal problems have either been solved or the invention is not considered closed yet.

5.5 Implementation: How the programme was run

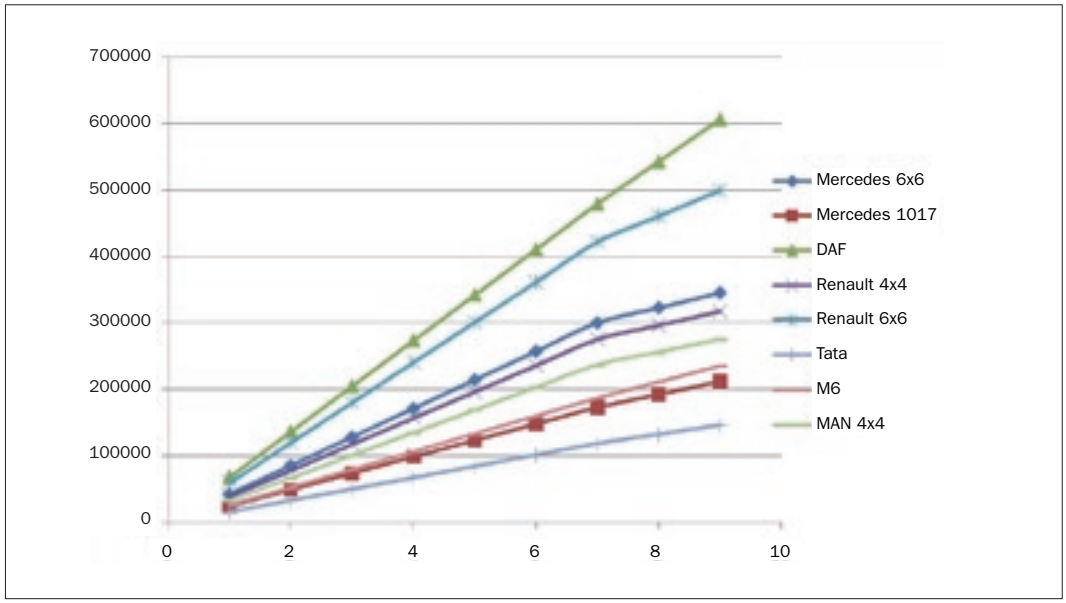
5.5.1 Vehicle "choice"; cost and alternatives

The evaluation team has compared the costs of the M6s with some of the other trucks used in relief operations in Figures 1 through 3 below. In order to make these comparisons it has been necessary to make some assumptions and some estimates. In Figures 1 and 2 it is assumed that seven years is a reasonable depreciation time for trucks. In figure 3 the assumptions are stated in the graphics. The shorter the depreciation time used, the more competitive the M6s become as compared to new trucks. The underlying calculations may be found in Annex 5.

It is clear however that using the M6 can normally not be motivated on the basis of cost. The trucks being compared are not equivalent. A comparison between trucks is therefore not easy. Today's truck manufacturers do not provide M6 type trucks. There are trucks like the

Mercedes 1017 or an Isuzu FTS 33 which have the same loading capacity but are 4x4 units instead of 6x6. Their fuel consumption is, on average, 60% lower than the M6 but their capacity to work in remote areas with no road does not reach the same level as the M6. Meanwhile, using a 6x6 Renault with a loading capacity of 12 tonnes would consume the same amount of fuel but be more cost efficient as up to four times more cargo could be transported. However the large Renault truck would, due to its weight, not be able to reach some of the remote areas as it would sink in the soft ground.

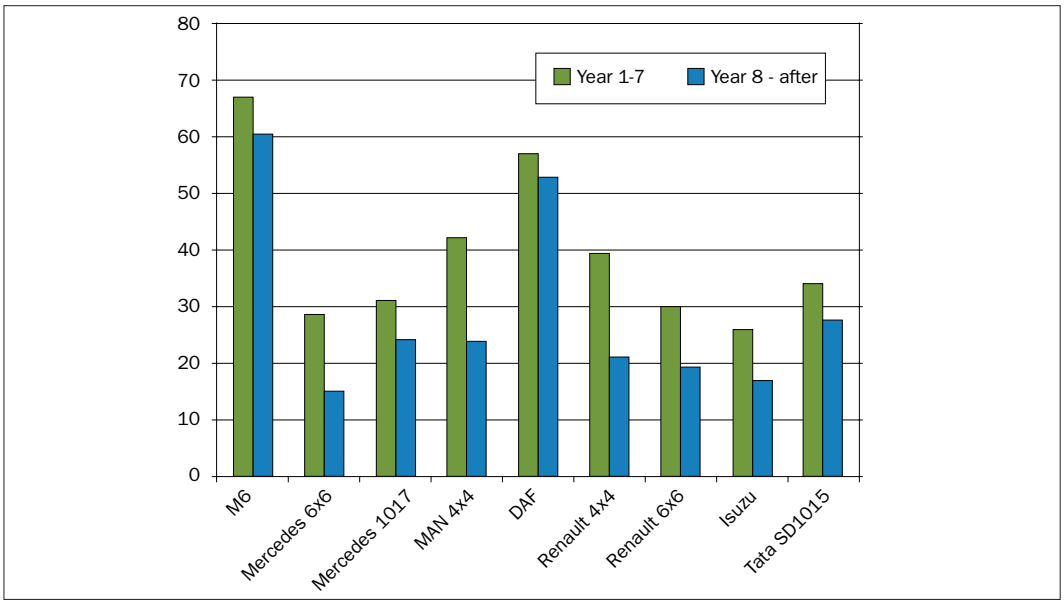
Figure 1: Yearly cost per truck, based on 30 000 km for each truck, including depreciation of the purchase cost on 7 years



The fuel consumption of the M6 is high but so is that of other 6x6 units, e.g. a Scania 6x6 in similar terrain consumes an average of 1.5 lt. per km of fuel.

As can be seen in figure 1 the annual cost of an M6 truck is quite competitive. However, the M6 trucks have a comparatively low carrying capacity. When this is considered the cost calculation becomes different as is apparent from the figure 2 and 3 below[29].

Figure 2: Relative cost per tonne



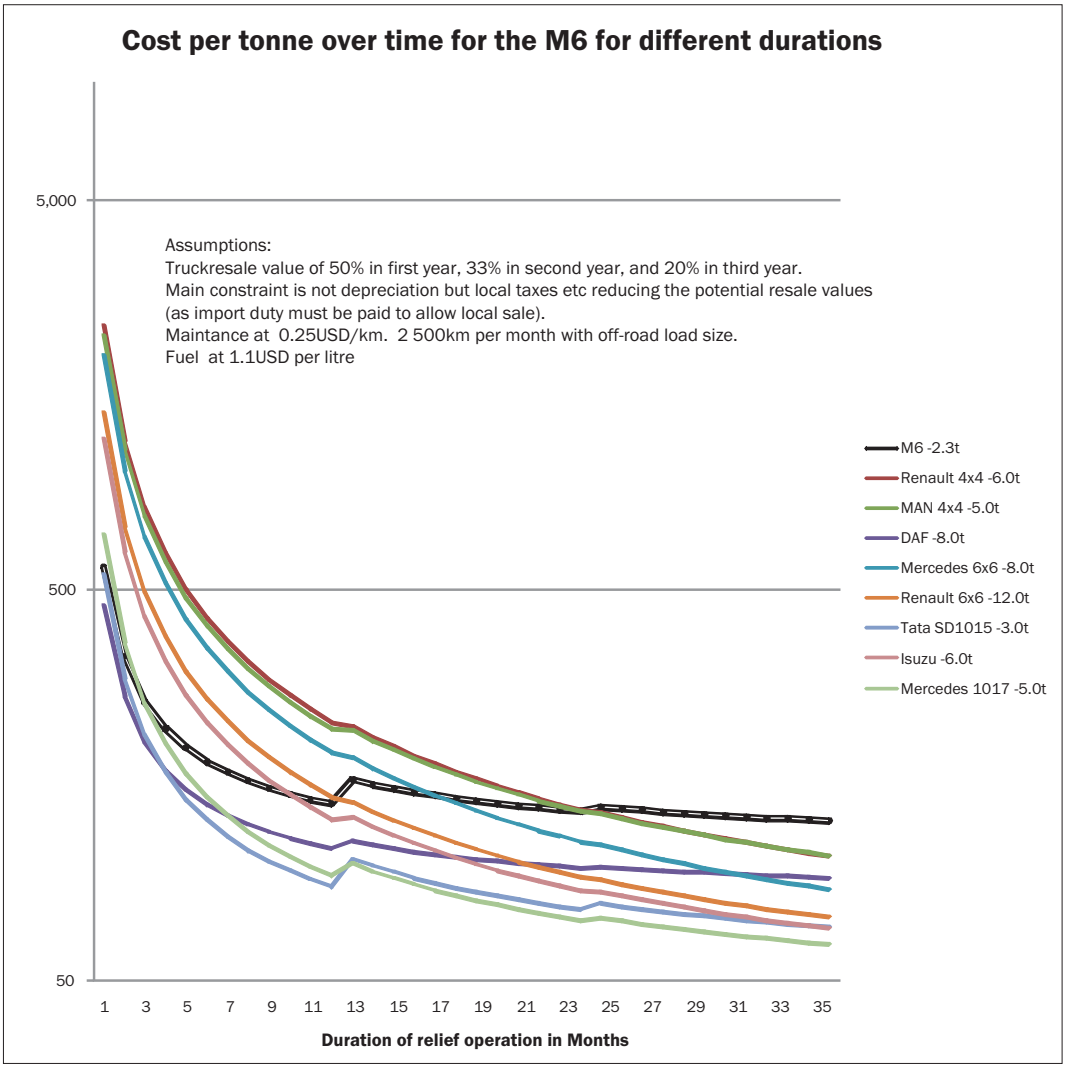
In this figure we have assumed a depreciation period of seven years.

29 Looking at the costs involved it might be interesting to compare with a Mi 8T helicopter with a cargo capacity of 4 tonnes. The per flight hour cost is between 2.000,- and 3.000,- USD. This does not include the fuel cost or support staff overheads for the helicopter.

What it boils down to is that different humanitarian interventions have differing transportation needs. An organisation serving fairly concentrated population groups in need of year round bulk food transports is best served by trucks with a low per tonne cost. An organisation serving multiple small target populations, during the rainy season only, or maintaining the trucks in preparedness for recurrent localised disasters such as seasonal flooding or transient IDP camps related to low intensity conflict, may be better served by trucks with low per truck costs.

It is clear that the running costs of the M6's are higher than many of the alternatives. The evaluation team has not, however, been able to document that the cost per tonne of relief goods or food delivered to inaccessible distribution points would have been lower with the alternatives. Due to the upfront purchasing price of new trucks, the full life cycle cost (within the humanitarian system) of the M6 truck is more favourable, the shorter the time period during which it will be used. However, as can be seen from Figure 3, to be fully competitive the planned period of usage is likely to be quite short.

Figure 3: Relative cost per tonne over time



With the above fairly drastic (but realistic) assumptions about resale values, it can be seen that the M6 is the least efficient truck for period of operation over 2 years and has only three more expensive rivals for a period of over one year. The numbers indicate that the DAF and the Tata are always going to be cheaper and the Merc 1017 will become cheaper after only 3 months.

This suggests that the M6 is only a good choice for places that these trucks cannot reach and for operations likely to last a few months.

There is a clear consensus[30] among the people interviewed that the M6s are good as "they always get through". Places cited where nothing else got through included
- areas that combine rough terrain with a lack of roads,
- areas flooded, including rice paddies;
- other "soft ground" areas where the six-wheel drive is needed;
- beach landings when used in combination with landing craft.

In each of the above an argument could be made for alternatives such as tractor trailers, ox-carts etc. However, such alternatives are not seen as realistic by the persons interviewed. The evaluation team repeatedly heard the conviction "nothing else could get through" and was told several times that helicopters were the *only* alternative[31]. In certain flooding situations even helicopters were not considered a valid alternative as the absence of landing ground in flooded areas made offloading without major damage to foodstuffs difficult.

There is also consensus that the M6 trucks may be difficult to manage due to:
- low loading capacity;
- high fuel consumption in relation to loading capacity;
- "wrong"-hand drive in left-hand drive countries;
- high point of balance leaves them prone to tipping if driven to fast;
- single braking system leaves them unsuitable for mountain roads.

People disagree as to the value of the trucks in terms of:
- Maintenance- which the trucks require a lot of. However, the maintenance required is basic and low-tech, possible to sustain in almost any environment.
- Spare parts which are a problem when initial supply starts running out (in most, but not all operating areas and cannibalisation possibly decreases this problem. Opinions differ as to the real cost of using cannibalisation).
- Others note that modern trucks are dependent on modules which, when they fail, must be replaced with modules only available on 1st world markets causing significant delays when one fails, whereas M6 failures by being "basic technology" failures can often be repaired or reproduced locally.
- In some areas the age and simplicity/ruggedness of the trucks are seen as well adapted to local maintenance capacities and creativity regarding repairs.
- Some say the trucks cause damage to the roads, some say their relatively low axel weight saves the roads.
- Some find this discussion irrelevant with the argument that any truck that can get through will leave similar damage and the alternative is loss of life.

Despite the fairly negative cost picture painted above the evaluation team finds that it is incontestable that real, delivered, maintained, old, smelly and expensive-to-run trucks are much more useful than highly effective, less expensive, cleaner, more modern trucks that no one is prepared to pay the purchasing price for. The key question, to which there is no clear answer, is whether any funding party would have been willing to pay for the purchase of new trucks?

The market option

Many of the disaster areas where interventions have been made have functioning local transportation markets. These clearly work well for long haul bulk transports on acceptable roads. In some areas they also work in inaccessible regions.

The evaluation team shares the opinion of key informants who agree that the M6 transportation niche is not filled, and is unlikely to be filled, by the commercial market. There are several reasons for this:
- disaster transportation needs greatly exceed normal volumes, rapidly building such capacity is difficult and risky for entrepreneurs;
- disaster areas cause damage or delay when normal trucks are used, these cost transporters money, complex emergencies also involve danger;

30 Two voices differed; one stated that the M6 tires are too thin to get through soft dessert sand, the other cited winding tracks as incompatible with the size of the M6.

31 The categorical nature of these statements tempts argument as there are numerous examples of using mule trains, bullock carts, camels etc. The evaluation team confronted some of the interviewees with such counterarguments and were met with arguments regarding timeliness, feasibility and animal availability in societies where motor transports competes with traditional entrepreneurs.

- special all-terrain vehicles are only needed for relatively short periods of time, making it difficult for entrepreneurs to charge enough to be able to get a return on their investment;
- relief activities are commonly funded by three – to – six month budgets making it impossible to sign the kind of long-term contracts that would make entrepreneurs interested in investing in special transportation capacity;
- transporters normally want their trucks to move fully loaded, relief supplies travel one way. When returning empty transporters want double pay, when carrying other goods relief organisations get nervous about what is carried on trucks marked with their emblem.

5.5.2 Financial management

The funding process of the MFA was efficient. The financial interactions between Norcross and MFA were well managed and their speed and simplicity at crucial stages clearly contributed to the success of the operations. MFA´s follow-ups was basic and overly trusting of Norcross management.

Initial funding for the TSP/TSU from the MFA was done first on a 3 year basis for upgrading the trucks. Since then it has been on a project basis responding to applications made.

The in-service donations from the private sector, i.e. the free sea transportation, represented a big cost saving.

Some finance delegates were included in the TSUs. Their mission was generally limited to reporting related to workshop and fleet operations, limiting their potential in terms of capacity building for partner organisations.

There is no common format, not to speak of common accounting software, in financial reporting for TSU operations between the various organizations involved.

The delivery chain of the trucks, from Norcross to the user, involved up to 4 different organisational structures (e.g. Norcross, IFRC, national society, WFP). Each structure maintains its own financial and reporting systems. Communication problems, including financial management problems, were persistent and serious.

Norcross has spent a total of NOK 146,5 million on the TSU interventions. Off this NOK 127,7 million are directly related to the M6 trucks and NOK 24,9 million refer to the cost of delivering the trucks to the areas of operation. These have varied greatly, ranging from “free” delivery in the form of in-service-donations of shipping for all of the Southern Africa trucks and some of those that went to Kenya and Indonesia, to full cost air transportation for some of the trucks to Indonesia and Niger and all of the trucks to Chad and Pakistan. A summary of available figures concerning costs, based on Norcross financial reporting, is presented in Annex 6.

It has not been possible to establish a reconciled budget for the global use of M6. This is perhaps unsurprising given the diversity of the size, structure and capacities of the organizations – IFRC, ICRC, UNHCR, Norcross, national societies, and local NGOs. It is unfortunate however as some of the criticism levelled against the TSU interventions is based on the conviction of some stakeholders that Norcross has not paid the full cost of the interventions as implementing partners have had to deal with indirect costs. The absence of consolidated data regarding the full costs of the interventions makes it impossible to say whether this is in fact true. Anecdotal evidence does support the argument that implementing partners have had real costs which have not been reimbursed. Examples of such costs are time spent by management and staff to pave the way for the interventions, deal with organisational relations on behalf of Norcross or deal with exit issues.

5.5.3 General Management

The Norwegian Red Cross was repeatedly unable to communicate effectively. This is true internally and externally, at many levels.

An abundance of myths and legends about the trucks and their use are shared throughout the humanitarian system. Many people feel they have had understandings/agreements with

Norcross regarding intervention scale, timing and planning broken. Most such broken agreements involve people who took part in assessments, agreed that a limited number of trucks might be useful and were then confronted with a significantly higher number being sent.

There was a disconnect between people with relief operation responsibilities and development programming responsibilities at all levels. Power was clearly with the relief people who acted without considering input from colleagues with longer time horizons and more complex analyses of contexts. Development people were steamrolled, partly due to lack of realistic alternative action in the face of the humanitarian imperative, partly due to the problem formulation dominance of the party with the tool; "We know the trucks are not perfect for this situation – but we have them so let's use them. At least we will be doing something!"

Norcross were not alone in falling into this trap. Other parts of the system learnt more rapidly from their mistakes however, resisting use of the M6s when not appropriate. Norcross kept sending the trucks, in several cases in significantly higher numbers than agreed.

This state of affairs becomes particularly serious given the power relations within the Red Cross movement, in particular between the funding so-called participating national societies (PNS)[32] and the receiving so-called operating national societies (ONS) and their coordinating body, the Federation Secretariat. The Norwegian Red Cross is a well respected member of the Federation. Its financial and technical resources are very important to the Federation in the execution of its mandate.

In consequence, key stakeholders within the Federation structure have not felt that the option to refuse M6 interventions has been realistic due to the perceived risk of losing favour with a key supporting member society. It is clear that some of the interventions have been accepted rather than requested with formal requests written after the fact to accommodate the wishes of this important member society.

There appears to have been an organisational culture within Norcross so satisfied with the apparent success of the programme that critical feedback was ignored and resistance to new interventions often bypassed.

A key problem has been that Norcross management and board have seen renewed demand for M6s as proof of successful past interventions. This has been a simplistic interpretation which ignores that a resource that is 'free' in terms of impact on a partner organisation's budget will continue to be in demand even if there are significant negative side-effects.

Repeated, insistent, attempts to make Norcross aware of problems with the interventions (including reports by evaluators commissioned by the organisation and senior members of the organisation's own staff) were not acted upon. The learning that did take place over time appears to have been primarily operational, technical and related to the personal experience gained by individuals.

Established systems for everything from needs assessments to decision-making, from established mandates to communication were bypassed causing additional costs, significant bad-will and unnecessary delays.

It was considered OK to initiate the interventions without an exit strategy.

5.5.4 Governance – the role of Norwegian Authorities

The first M6 process, initiated by MFA/MOD/FLO was a parallel process without Norcross participation, and never materialised.

The role of the MFA in the M6 project, as it evolved, was very much in accordance with the established formal and informal framework and procedures that governs the relationship between MFA and the large Norwegian NGOs. The fundamental element is trust, that the NGO is professional and able to manage and deliver results as expected. The engagement and

32 Within the IFRC, member RC societies are referred to as Participating when they provide resources and as Operating when they implement programmes.

quality assurance is focused on the application process, when needs and design etc are discussed, both in Oslo, and to a varying degree with embassies when such exist in the project country. The underlying philosophy is similar to goal oriented management; agree on the goal and then allow your competent partner get on with the job. Meanwhile, the MFA recognises a very low capacity to follow up on results and impact throughout the project cycle; it is usually limited to the reading and approving of end of programme reports.

The evaluation team found that the particular nature and scope of the M6 project triggered more thorough policy discussions within the MFA than is usual. This can partly be explained by a certain scepticism towards the use of old military material on the part of civil servants in the Section for humanitarian affairs. However, only minor amendments were proposed, and serious alternatives to the M6 were never requested, presented or discussed[33].

The main message consistently put forward to MFA by WFP and Norcross (and IFRC?), was that the program was a huge success. Even though some critical issues were communicated, they were overshadowed by the overall image of success. The end of programme report presented in 2006 was initially not approved, as the MFA wanted a more thorough analysis on impact and learning.

The evaluation team notes that there are particular and strong ties between individuals within the Norcross management and in the political level of MFA and MoD. Such ties should not be ignored when assessing the strength and quality of a system designed to provide governance and oversight in relationships involving massive capital transfers.[34] The evaluation team can however not show evidence that these ties had any significant impact on the MFA support or approach to the project. To the extent the approach has differed from other similar projects, it is our impression that it has tended to be more critical than usual.

5.5.5 Governance – Norcross checks and balances

The project had solid (and enthusiastic) support by the senior management, the President and the board, and was subject of intense discussions. However, the lack of sound strategies, planning documents and reporting routines begs the question whether there was an *informed* decision making.

Decisions were in fact taken ad hoc. An almost total lack of background documentation related to decisions about major commitments indicates that such decisions were made on the basis of short verbal briefings. This indicates an unhealthy degree of trust on the part of the Board. It also makes it difficult to trace decision making processes in the organisation.

There has been almost no use of evaluations or reviews as tools for improving quality and impact. When external evaluations have been undertaken, there is little evidence that conclusions and recommendations have been acted upon. Many of the systemic weaknesses that have been detected in this evaluation have been highlighted before e.g. in the external evaluation of the Norcross emergency program in 2001.

33 It is noteworthy that the Senior Humanitarian Advisor at the time concedes that an application for a cash grant for purchasing of new trucks would probably not have been considered positively. Hence, the actual choice faced by the decision-makers was: M6 trucks or no trucks.

34 The Norcross Secretary General at the initiation of the project was a former Vice Minister of MFA. The President was a former Minister of both MFA and MoD. The Secretary General between 2003 and 2005 is the current Minister of MFA, and the Vice Minister of MFA in 2002/2003 was a former advisor of the Red Cross.

6 Analysis

The issue of governance and policy must be seen in light of the main conclusion, that the M6 project has saved lives, and generally was a good idea. But that lack of strategic approach, planning and quality assurance in general reduced both the impact and effectiveness of the project.

6.1 Relevance and appropriateness

It is clear that some relief operations are conducted in areas that are inaccessible to any other form of transport apart from air drops, helicopters and special off-road vehicles. In the above section on local context, we have already noted the direct link between systematic, documented needs assessments and quality relief interventions. It is simply not possible to know if a resource, such as the M6s, is relevant and appropriate unless the specific context is known.

The transport infrastructure that exists in any location is normally adequate for the volumes it has to transport. However, humanitarian emergencies mean that there are huge increases in the volumes of goods that need to be transported, either because normal transport has been interrupted for some time, or because household production has failed, or because populations have moved to new locations.

The evaluation team can therefore safely conclude that there is a need for relief agencies to supply trucks capable of forging through very difficult terrain. We can also conclude that such trucks will almost always be cheaper to run than air operations.

Views differ as to the technical appropriateness of the M6s. Some feel they are difficult to source spare parts for, some note that this generally is no big problem given the option of cannibalisation. Some feel that they are gas-guzzling environmental destroyers, some that they do not consume much more than similar vehicles on similar terrain.

The specific capabilities of the trucks make them appropriate for particular circumstances, where loads need to be transported over difficult terrain, in particular areas with severely damaged infrastructure and/or flooding. Meanwhile, they are not the only trucks available to fulfil such tasks.

The appropriateness of an M6 program is thus highly dependent on the design of the program, and how they are used. Were they used appropriately? This varies. The trucks are appropriate for a very particular use and not for general transport. The need for such specialised transport is limited to specific circumstances in specific terrain. A recurrent problem was oversupply. Norcross simply delivered more trucks than were requested or needed. It is possible that there were underlying assessments regarding the potential to use additional trucks for spare parts only or for preparedness purposes over the long run. If so, such plans were not sufficiently discussed and communicated with key partners.

Such oversupply problems and/or declines in transportation needs as infrastructural conditions improved and/or transportation volume needs declined led to difficulties with NOT using existing resources. This in turn, in some interventions, led to inappropriate use.

The evaluation team find that the M6's are relevant and appropriate if (and only if) used for the tasks for which they are designed.

The evaluation team further finds that the TSU concept would be even more relevant if separated from the tight connection with the M6 trucks. Whether Norcross has a significant comparative advantage in supplying transportation and logistics software (purchasing skills in

disaster environments, mixed commercial/in-house fleet management, management and disaster preparedness training etc.) is unclear and beyond the scope of this evaluation.

6.2 Effectiveness

There existed no documented strategic framework for the interventions. This resulted in cases of inappropriate use and mismanagement.

Did the M6 do their job? Yes. Undoubtedly. They delivered x from a to b, and in doing so saved lives and prevented human suffering.

Were they the most effective solution to the task they were supplied for? Cost effectiveness is dependent on life-cycle cost of the trucks. This is unclear both for the M6 and the alternatives. Interviewees (almost) all agree that running costs are higher for M6s. In terms of life-cycle costs charged to the aid system, this is much more unclear. What is clear is that M6's are only cost effective compared with similar trucks for relatively short operations. With each month, their small capacity and high fuel consumption make them less and less attractive.

Some of the interventions have been criticized due to the cost of air transportation. The official explanation for this delivery mechanism is twofold: timeliness and alternative cost. Do these explanations survive scrutiny?

Undoubtedly, in sudden onset disasters affected people often need assistance within weeks, not months. In Indonesia and Pakistan the timeliness argument is therefore valid given an assumption that local resources could not handle the needs (which is questionable in Pakistan, probably not questionable in Indonesia). In the Pakistan case there was also a fear that winter snows would arrive early, winter snows which were an important reason for at all considering the M6 in the Pakistan environment. However, the M6 are often too large to work off-road in Pakistan where mountain roads are very narrow and have very tight corners that require even short-wheel base land-cruisers to do three-point-turns to negotiate them. We are not clear that the timeliness argument holds true for Chad and Niger but these countries' geography would have implied very long lead times.

It can be argued that the resource being used to meet needs while waiting for the trucks was helicopters in Indonesia and Pakistan. These are vastly more expensive than the trucks and not many days of operation would be required to allow the investment in air transport costs to be recuperated. Furthermore, in both cases, it is clear that the needs were greater than the capacity to deliver to roadless areas. In Indonesia, as in South Africa, time gained through rapid transport was subsequently lost in customs procedures and arranging local transportation to the area of operations.

In Chad and Niger the alternative was more likely to have been non-delivery with the subsequent human effects.

6.3 Efficiency

With the exception of initial start-up problems, overall the trucking fleets run under the programme had good, professional transport management and maintenance.

Documentation and compliance with IFRC protocols e.g. reporting and statistics have not always been up to standard making e.g. cost calculations and improvements in efficiency difficult. This also implies that opportunities to improve efficiency were lost.

Some of the problems with efficiency have been inherent in the technical specifications of the trucks themselves. Such problems have been compounded by the tendency to oversupply the operations in terms of number of trucks.

Overall intervention efficiency would have been significantly higher if Norcross had been capable of improving connectedness, including more ambitious investments in the capacity building of partners.

The lack of administrative tools like Standard Operating Procedures and appropriate manuals were clearly and repeatedly identified as a serious problem from the very start of the programme. Their absence repeatedly created confusion and frustration among stakeholders. Based on a lesson learnt seminar among the internal task force after the Southern-Africa operation, the development of a standard operational procedure (SOP) for the TSU was initiated. Over time, guidelines from draft SOPs were used for several of the operations. Norcross also funded the position of a heavy fleet coordinator at the IFRC fleet base in Dubai to finalise this work.

Nevertheless, such tools were only recently finalised and agreed. The failure to do this earlier significantly decreased intervention efficiency.

6.4 Sustainability and connectedness

Relief operations are inherently unsustainable. However, they may be designed and implemented in a way that strengthens coping structures and civil society in the host country. A prerequisite for that to happen is that the interventions are "connected" with the overall dynamics of the society affected by a disaster event.

Whether an intervention should be considered as well connected is difficult to assess without considering intent. An intervention may for example be seen as well connected if its intent was to function as a support service provider to WFP, in a context where WFP is considered well connected. The same intervention might be a dismal failure if seen as a Red Cross Movement based intervention that should have contributed to building the capacity (including sustainability) of the host country Red Cross society.

The absence of strategy therefore leaves us without a level of ambition against which to judge performance. The evaluation team makes the following assumptions:

- The Norwegian Government chose Norcross to implement these interventions partly because Norcross is a component of the Red Cross Movement, implying some kind of value added derived from that characteristic.
- Norcross sees its mandate as based in the Movement and its structures.

The above assumptions would imply that ambitions for connectedness would include supporting the development (sustainability) of the concerned ONS. They would also include supporting the development of IFRC. Based on these assumptions, degree of connectedness with ONSs and IFRC become relevant.

Lebanon is a special case as the implementing partner was the ICRC.

The evaluation team finds that Norcross has had a high degree of connectedness with Kenya Red Cross.

The evaluation team lacks data to judge in Haiti and North Korea. In the other cases (with the possible exception of Niger) it is our impression that relations with the ONS have been largely delegated to operational level field staff or to the IFRC. Meanwhile, workshops and fleet operations have frequently been run within IFRC structures but with parallel, separate systems and set-ups. There are differences of opinion as to whether the right balance between control and integration has been maintained.

Overall the absence of strategy, agreed mandates and working procedures has led connectedness to be dependent on personalities and local conditions. Operational coordination has repeatedly had initial problems leading to negotiations and local agreements after which day to day issues with the implementing partner have run smoothly.

When assessing the degree of connectedness with the IFRC The evaluation team is immediately confronted with the same kind of disconnect between "relief" and "development" people. Connectedness with relief oriented departments in Geneva and their representatives in the field appears to have been excellent at strategic/policy level while frustrated and keenly missing the absent standard operating procedures at middle management level. Connectedness with the development oriented departments appears to have been absent.

The ambition and orientation of capacity building implemented was generally only geared towards narrowly defined fleet needs. Capacity development normally involved drivers, mechanics, workshop managers, fleet managers directly linked to the management and running of the fleet. When the fleet left, so did the trained people. The possibility of training people in assessing transportation needs and addressing the overall and disaster response needs of the National Society were not considered part of appropriate capacity building connected with these interventions.

Debates exist whether Norcross left partners with financial or other obligations unfulfilled as well as regarding how to set a value to the use of partner resources e.g. management capacity without paying the price, even in situations when the fleet had not been requested by a partner and was not moving goods on behalf of that partner.

6.5 Coordination

Strategic coordination was at times dismal with the IFRC, supposedly charged with coordinating RC/RC interventions in times of natural disasters, being informed after the fact that the trucks were on their way.

In terms of the operational coordination, at the level of service provider (i.e. providing transport of x from a to b on the basis of transport booking or similar), this has in general been excellent. Systems have been established, together with partner organisations, allowing the programming bodies to plan and book specific transport tasks and get these implemented according to plan.

7 Conclusions

Our overall conclusion is that:

- the use of the M6 trucks has undoubtedly saved lives and alleviated suffering in operations where they have been used. The impact in terms of lives saved differs depending on the nature of the disaster within which they have been used[35].

The evaluation team also concludes that many of these lives could not, realistically, have been saved in any other way – given the logistics necessary and the availability of resources that the people affected, the national authorities concerned and the international community were willing and able to mobilise. This conclusion is based on the assumption that the key stakeholders' belief that it was M6s or nothing was in fact true. The evaluation team finds this likely to have been the case in Southern Africa, Indonesia and Kenya.

All the following conclusions and recommendations should be understood in reference to the overall conclusion.

The TSU concept is universally hailed as useful and should be maintained and developed over the coming years.

Future TSUs should include special transport capabilities equivalent to those of the M6's.

Future TSUs should be needs driven rather than supply driven. This implies, among other things, that the competence base of the staff sent into the field should include transportation service purchasing in southern environments, coordination of local transporters and the ability to develop management skills in pertinent fields for partner organisation staff. These are not competencies that Norcross has proven itself to be able to mobilise.

Governance – the role of Norwegian Authorities

The Norcross M6 operation was mainly initiated and driven by Norcross and WFP, with MFA and MoD/FLO in a supporting role.

The role of the MFA was in accordance with the established framework (formal and informal policy procedures) between MFA and the large Norwegian NGOs.

MFA quality assurance was limited to discussions around the 2003 proposal, and questions around the 2006 end report. However, more critical questions on impact and learning were asked by the MFA than usual in similar programs. Likewise, more critically constructive approach can be traced in MFA than in the Norcross management.

The weakness of the MFA quality assurance mechanisms for this project is attributable to a systemic weakness, and mismatch between the humanitarian portfolio and human resources dedicated to the follow up of grants to NGOs and other partners, rather than to issues specific to this project or Norcross.

Realistic alternatives to the use of M6 were never discussed or considered by the MFA or Norcross. The simultaneous "match" of needs and the existence of free trucks defined the project.

35 In violent, sudden-onset disasters, such as earthquakes and tsunamis, the immediate lifesaving actions are normally undertaken by the local population and its social structures in the first hours and days. In such cases the M6 trucks can contribute to the humanitarian response, but are not likely to contribute to life saving due to the mobilisation time.

Governance – the role of Norcross management

The lack of systematic strategic planning, administration and follow up of the project can be attributed to a general organisational culture in Norcross.

The board and senior management has a particular responsibility, as quality assurance, (systems for planning, evaluation and learning) has never been asked for or accounted for.

A proper management of the project would imply additional human resources (both number of staff and skills sets) dedicated to the project. Senior management must take responsibility for this serious gap.

The Norcross management (including the President and the board) has had a clear preference for the emergency activities of the organisation, at the cost of the capacity development role and activities. This can partly explain why capacity building was not fully integrated in the project.

The lack of formal procedures has also facilitated innovation, creativity and speedy solutions – all crucial to successful response to emergency situations. It is important that these organisational strengths are not lost. A good balance between flexibility and speed on one hand and sound quality assurance systems on the other must be sought.

8 Recommendations

8.1 To Norcross

1. Norcross should develop an overall strategy for the use of TSUs. The strategy development process should begin by looking at global trends in humanitarian transport and logistics, including changes in financing, coordination etc.
2. Using the above global analysis as context the Norcross strategy should address issues such as Norcross comparative advantage, which role Norcross is prepared to shoulder responsibility for, relations Norcross wishes to develop with partner organisations in this field, which these partner organisations should be, criteria for intervention, degree of conceptual flexibility for example in terms of competence base to be maintained, alternatives for length operation and clear exit strategies.
3. The strategy development process should explicitly deal with TSUs with - and TSUs without - M6s or with M6s as only one of the transport elements of the TSU. Essentially, one should conceive of the M6s or similar as providing a specific transport capacity for areas which cannot be reached by commercial transporters. This would see TSU's not just managing their own fleet but also tasking contracted fleets.
4. Documented needs assessments should be a requirement prior to any decision to mobilise a TSU. Implementing partners and local authorities should be included in the decision-making process prior to launching an intervention. The need for timeliness does not override the need for a proper needs assessment. Additional, regular, new needs assessments should be made over the course of the intervention.
5. Norcross should refrain from, and MFA should refuse to fund, any intervention that has not been requested by suitably mandated authorities. Expanding the number of trucks beyond what has been requested should be regarded as a separate intervention in this regard.
6. If a situation arises where Norcross feels that the humanitarian imperative overrides the lack of such requests this assessment should be regarded as a sufficiently serious breach of normal procedure to require written confirmation by the Board.
7. Given implementation of the above recommendations, Norcross should continue to offer the M6s as a resource, until the current, upgraded stock runs out. What to do with the remaining not-yet-upgraded stock should be one of the issues to be addressed in the future strategy.
8. Norcross should develop a plan to address its documented inability to learn. An ambition level for future evaluation intensity should be set based on clear criteria (including size of operation, degree of innovation, and the involvement of new and old partner organisations). All future evaluation processes should include a formal management response function. Major future evaluation processes should also include a formal governance response function.
   Organisational learning requires systematic formalised processes. Meanwhile, such processes are not enough if attitudes throughout the organisation do not support learning. The plan developed should therefore involve all levels of the organisation i.e. Governance, Management, staff and key volunteers. It should include systematic efforts to improve internal communication, leadership development and appropriate orientation for decision makers on the links between relief and long-term impact in humanitarian activities.
9. Norcross should continue its efforts to mainstream gender issues. There remains a serious challenge to develop understanding for these issues within the organisation.
10. The use of TSUs needs to be better "anchored" and communicated within IFRC to avoid future situations where delegates either don't know about the arrival or are against the use of a TSU when the decision has been taken. If Norcross chooses to continue with TSU interventions the organisation should ensure that this takes place.
11. Norcross needs to develop clear procedures for how to request, implement and exit TSU support with guidelines to be followed in the process. Norcross should make sure that the

requesting organisation has conducted a standardised needs analysis specific to a TSU. The needs analysis should be quality assured by Norcross before any final decision of sending trucks is made. A standard contract model to be used in TSU operations should be attached to the procedures to ensure that everybody has a clear picture of the implications involved and to avoid misunderstandings between the involved organisations.

8.2 Recommendations to the Norwegian government

12. Norwegian government should suspend decisions on future support for Norcross TSUs until such time that the organisation can show serious progress on developing a coherent strategy for such interventions.
13. If a coherent strategy is developed, Norwegian government should continue to support Norcross capacity to supply the international humanitarian system with relief transport capabilities. Financial sustainability of the TSU concept is an issue. As the supply of M6s runs out the concept would need to be reworked, this entails long term structural costs. If the future resource is to include trucks some serious capital costs may need to be covered. Appropriate government support would be needed, with mid-term commitments over at least 5-8 years.
14. Norwegian government should consider ways of improving its ability to triangulate information received from its major NGO partners. This should include exploring the capabilities of the private sector[36].
15. Norwegian government should review its relationship with large Norwegian NGOs and Norcross. In line with the principles of good donorship, MFA should develop its capacity to actively monitor how programmes and projects funded by the government are actually implemented. Even experienced and highly professional organisations need the support of a critical, pragmatic, external pair of eyes from time to time.

36 Private sector capabilities need to be better understood. There are notable examples of good service provision by private transportation companies for example for bulk transports to regional hubs. Meanwhile, there are also multiple examples of private companies refusing to transport goods to inaccessible areas for fear of costly delays or repairs. Similarly, the Federation light vehicle leasing programme, based in Dubai, has repeatedly challenged private operators to match their prices, without success.

9 Lessons learned for Future Use of Used Military Assets

The evaluation team does not have the data to generalise the experience gained in connection with the use of the M6s to all used military hardware. Some lessons appear highly relevant however:

- There are conditions harsh enough to motivate intervening with specialised equipment normally only available from military sources.
- Serious needs assessment is an absolute necessity if resources and needs are to be effectively matched. Such assessment should be recurrent and management should be held accountable for learning from them.
- The inclusion of technical expertise and hardware in a joint package is a prerequisite for effective use of non-standard hardware e.g. ex-military resources.
- Serious commitments require serious attention and follow-up from both management and governance.
- Large-scale hardware interventions should not be initiated without clear strategy, including exit options.
- Humanitarian assistance is normally given in complex circumstances with multiple stakeholders. Significant investment in communicating clearly with all concerned (before, during and after actual operations) is necessary to achieve effective and efficient interventions.

ANNEX 1

Terms of Reference

Evaluation of the effects of using M-621 military cargo trucks in humanitarian transport operations

1. Rationale

The Norwegian Red Cross (NRC) is an important partner of the Norwegian Ministry of Foreign Affairs (MFA) in international humanitarian assistance. NRC has over the last five years built up experience in supplying Transport Support Units (TSU) for humanitarian transport operation. MFA has been a major funder of these efforts.

TSU is a disaster preparedness product designed to cover special humanitarian transport needs. It consists of special vehicles and corresponding spare parts, mobile workshops as well as technical assistance and training of partners involved in the operations. It is designed as modules that can be delivered in parts, or as a whole, by NRC to an implementing partner with the operating responsibility. NRC has been active in introducing the TSU concept and financing its operations within the Movement at large. The military, all-terrain M-621 cargo trucks, hereafter referred to as the M6, are essential parts of the TSU-concept, and the main object of this evaluation.The background for the supply of M6 in these operations is that more than 1.000 M6, produced in 1968-70, were donated by the Norwegian defence authorities to the NRC in 2002 and 2003, intended for use in humanitarian operations.

The overall goal of using M6 in these operation is to *save lives* and *provide human protection*. The intended objective is to respond to special needs for humanitarian goods and services where other transport means do not exist due to particularly difficult terrain and where the economic costs of transport cannot be met.

NRC had by May 2007 delivered nine TSU operations spread over three continents (Southern Africa, Haiti, Chad, Niger, Pakistan, Lebanon, North Korea, Indonesia and Kenya). Of the 1.068 M6 received, 527 M6 has been sent out as part of TSU operations. Of this, 282 were in operation as per May 2007.

In March 2007, Norwegian media questioned the use of M6 and pointed to a number of negative effects, which prompted the NRC to undertake an internal review of the use of M6 in humanitarian transport operations. In addition, MFA decided to undertake an external evaluation, and in agreement with NRC and Norad, it was decided in March 2007 that Norad's Evaluation Department would take on the responsibility for the external evaluation.

Section 2 below provides the background for the use of M6 in humanitarian operations while section 3 presents some of the main findings and conclusions of the NRC internal review, which was completed in May 2007[1].

2. Background[2]

During the spring of 2002 the Norwegian Defence (Forsvarets logistikkorganisasjon - FLO) offered a number of M6 for use in humanitarian operations. Due to the worsening food security situation in Southern Africa, and based on a specific request from the World Food

1 Ref: http://www.redcross.no/File.asp?File=Bilder/PDF/070509_M6_rapport.pdf . Ref. also the annexes to the report, not included in the above link.

2 Much of the information in this section is taken from the NRC internal review (2007), including the financial data. The report stresses that reporting by NRC and its implementing partners does not separate out M6 from the TSU operations per se. Information and assessments provided should be read with this in mind.

Program (WFP) in mid-2002, NRC requested to take over 200 M6. NRC was to take on the responsibility of delivering a Transport Support Package (TSP) to support WFP operations in Southern Africa, operated in partnership with IFRC. The request was formally approved by the defence authorities in July 2002. In all, 200 M6 were subsequently shipped to South Africa and employed in the Southern Africa TSU operation spread over the following countries over different periods: Lesotho and Zimbabwe (2002/2003), Zambia (2002-04), Malawi (2002-2005) and Mozambique (2003-2005).The operation was supported by MFA.

In July 2003, MFA approved a request from NRC for funding in the amount of NOK 27,4 mill over three years to upgrade a number of additional M6 trucks (600), to be donated by the defence authorities[3].In addition to fund the M6 upgrading, MFA has since 2002 supported seven of nine TSU operations (Southern Africa, Haiti, Chad, Niger, Pakistan, Lebanon and North Korea)[4]. The cost of the Norwegian TSU inputs as per May 2007 is NOK 146,5 mill. NOK 59 mill comes from resources of NRC and NOK 87,5 mill from MFA (59,7 per cent), of which NOK 27,4 mill was for the M6 upgrading.

The M6/TSU inputs are supplied to third parties, who are responsible for implementation in the field. Lines of responsibilities and the role of NRC vs. implementing partner may vary depending on the operation. The implementing partners of NRC may also vary, but has typically been partners within the Red Cross Movement (International Federation of the Red Cross and Red Crescent Movement - IFRC, the International Committee of the Red Cross – ICRC, as in i.e. Lebanon, Chad, Niger, North Korea, and national Red Cross societies[5] in partnership with IFRC, as in Kenya), or the UN (World Food Program - WFP, as in Southern Africa). After the TSU has been supplied by NRC, much of the control over the use of inputs rests with the implementing partner for the duration of the agreed period.

3. Main findings and conclusions of the NRC internal review

The NRC review (2007) provides an overview of the different inputs, activities, results and status of each of the nine operations as well as an overall assessment of the M6 interventions.

According to the review, approximately 238.093.000 kg food/water and emergency supplies has been distributed through the TSUs. In 2005, a total of 48.000 refuges were transported from the border of Sudan to refugee camps in Chad (the report does not analyse how these outcomes influenced the humanitarian situation). The report lists several *suggestions for improvements*, both on the part of the NRC and its implementing partners, such as:

- the need to undertake more thorough needs assessments before dispatching the M6, including more thorough studies of alternative transport modes for transferring the trucks to the destinations;
- the need to find a more optimal balance between timeliness and costs of sending the M6 to destinations;
- environmental consideration should have been included in the planning as well as the procedures more generally;
- more attention should have been given to project management both at the NRC head office and in the field;
- greater emphasis should have been given to institutional capacity building and learning, and working methods should have been adjusted under way, the preparation of the TSU handbook took too long, not enough attention was given to the need to support capacity building of the national Red Cross/Red Crescent societies and the national societies were not sufficiently included in the program; and
- cost/benefit analysis was not undertaken which included consideration of the special conditions the M6 operates under.

The review *concludes* that the M6 represents a considerable value added in emergency situations under extreme difficult transport conditions. When put to the right use, M6 fills an important transport niche. The TSU and the M6 should continue to be a product that the NRC could offer, but with more stringent criteria for dispatching the vehicles and stronger emphasis

3 This package also included workshop units (12), spare parts and costs of fuel, filter etc up to 20.000 km per vehicle, also to be considered as "M6 inputs".
4 NRC has also delivered TSU modules to Indonesia and Kenya, but these were funded without funding from MFA.
5 Also often referred to as the national society of the host country, the local Red Cross or the operating national society.

on quality assurance. In addition, special consideration must be given to assessing the need for M6 in individual TSU operations, with due recognition to the particular context. Nevertheless, it is likely that M6 as part of TSU will be phased out over time, due to the aging of the vehicle fleet and the technical disadvantages identified in the report.

4. Evaluation purpose and objectives

The *purpose of the evaluation* is to document the effects of M6 interventions (accountability purpose) and to use lessons learnt to improve future humanitarian operations intended to meet special transport needs (learning purpose).

The evaluation should provide insight into whether the use of M6 should be continued or discontinued, and provide strategic guidance and recommendations for future actions, taking into account possible alternative scenarios. At a more general level, the evaluation may also provide guidance for how to ensure effective and timely use of outdated (military transport) equipment in humanitarian operations, taking into account the longer term perspective and sustainability concerns.

The evaluation has two main *objectives*:

- to assess the relevance, appropriateness, effectiveness, efficiency and sustainability of past and ongoing M6 interventions in humanitarian transport operations, including the roles, functions and performance of MFA, NRC and its implementing partners, and;
- to discuss and analyse whether the use of M6 in humanitarian operations should be continued or discontinued, and provide guidance and recommendations at both strategic and operational levels on a) how to enhance the effects and b) possible exit strategies and phasing out.

It follows from this that the evaluation should document results, intended and unintended, positive and negative, of M6 interventions and assess whether the support was relevant, appropriate, effective (including timely) and efficient and whether observed outputs and outcomes are likely to be sustained. Which objectives were achieved, which were not? Why? What worked, what did not work, and why? What could have been improved?

The *primary users of the evaluation* will be the MFA and NRC. The key stakeholders are considered to be MFA, NRC, implementing partners and the target groups (beneficiaries). Due to time and resource constraints, beneficiaries and implementing partners will not be in position to be actively involved in the evaluation process, but it is essential that the evaluation approach ensures that the perspectives of beneficiaries and implementing partners are taken into account to the extent possible. In addition to the key stakeholders, the evaluation should be of interest to other actors involved in disaster preparedness and humanitarian responses as well the Norwegian defence authorities, the Parliament, the Auditor General and the public at large, including the media.

5. Scope

The evaluation object is the M6 inputs as well as the M6 intervention strategy and implementation processes (M6 interventions). Thus, the interventions to be evaluated consist of inputs from the Norwegian defence authorities, MFA, NRC and implementing partners. The evaluation should cover all M6 interventions and all phases of an intervention, focusing on assessing effects at the outcome level. It should assess both intervention strategy and implementation processes and activities.

In order to assess the effects of M6 interventions, it is necessary to analyse the circumstances and processes that led to NRC supplying M6, and the function and performance of NRC in these efforts, including contribution to sustainability and capacity development. It is also necessary to describe and assess the role, function and performance of MFA, being a major funder and facilitator. The different roles, functions and performance of NRC's implementing partners must also be described and assessed, focusing on how their performance may have affected outputs and outcomes and the sustainability of these. It will be the task of the evaluation to verify the findings and conclusions of the 2007 NRC internal review where relevant, and undertake further in-depth analysis in order to respond to the broader evaluation

purpose and objectives outlined in this Terms of Reference. The evaluation should cover the period from 2002 up until the time of the evaluation.

The evaluation should be based on an evaluation framework to be developed by the team, illustrating the program theory/intervention logic of the M6 interventions, reconstructed from available documentation and consultations with the key stakeholders[6]. The evaluation should clarify whether the M6 interventions, designed as humanitarian support operations, have taken adequate account of the need for a longer term development perspective. Attention should be given to all phases, including needs assessment, decision making, planning and programming, implementation, monitoring and evaluation, taking into account the roles and performance of MFA, NRC and its implementing partners at the different levels.

The evaluation should assess the overall M6 "program" integrated in the TSU concept, as well as the specific M6 interventions delivered in the context of the nine TSU operations undertaken so far. A cost-benefit analysis of the overall M6 program should be undertaken, taking into account relevant qualitative factors and cross-cutting issues while reflecting on likely alternative scenarios. When analysing individual M6 interventions, focus should be on documenting the effects on intended outcomes.

An external evaluation[7] of the NRC's international humanitarian assistance was carried out in 2002, commissioned by the MFA[8]. The evaluation, which focused on the individual projects of NRC, concluded that NRC is highly effective in deploying supplies and personnel to crisis areas. However, when set against the aim of the continued prevention and alleviation of suffering, and enhancing local capacity, the degree of overall effectiveness fell. Too much attention was given to the project as such, and to the achievement of quantitative targets, to the detriment of aid networks and outcomes[9] among the population. The potential for contributing towards protection and capacity building was not fully utilised. Where relevant, findings from this and similar evaluations and reviews should be taken into account.

Attribution

The evaluation framework will have to deal explicitly with the challenges of attribution and clarify how to assess connectedness and interlinkages between the different M6 and TSU inputs supplied by Norway, and between these inputs and other inputs supplied by international and/or national stakeholders. As the M6 inputs constitute an essential part of the TSU inputs, the evaluation must assess M6 interventions within the context of TSU operation. The evaluation framework should address the difficulty of isolating the effects of M6 intervention from that of the TSU operations as well as the difficulty of isolating the effects of the Norwegian M6/TSU inputs from the inputs of other stakeholders.The evaluation is not expected to produce a comprehensive assessment of the humanitarian assistance of NRC in general or of the broader international humanitarian operation in which the M6 interventions/ TSU operations constitute one of many parts.

Evaluation criteria and evaluation quality standards

The evaluation team should discuss how it intends to apply the criteria for evaluation of humanitarian action: relevance/appropriateness, connectedness, coherence, coverage, efficiency, effectiveness, and impact, based on the OECD-DAC evaluation criteria[10] and the ALNAP Guide for Evaluation of Humanitarian Action[11].It is suggested that the evaluation should focus on assessing *relevance,appropriateness, effectiveness* and *sustainability* in relation to results at the outcome level, including also consideration to *connectedness* and *coverage* issues. The criteria should be applied so that it also answers the "why" questions.

Consideration should be given to relevant *cross-cutting themes* as defined by the ALNAP Guide: local context, human resources, protection, participation of primary stakeholders, coping strategies and resilience, gender equality, HIV/AIDS and the environment. The

6 In case MFA and NRC may have different opinions on what constitutes the program theory, the team should be explicit about this as well as of the implication of differences in key stakeholders'program theories.
7 Link to full report: http://www.regjeringen.no/upload/kilde/ud/rap/2004/0044/ddd/pdfv/155744-redcross.pdf
8 The Evaluation Section of the Norwegian Ministry of Foreign Affairs was transferred to Norad in February 2004.
9 "Outcomes" defined in the 2002 evaluation as benefits occurring beyond the delivery process.
10 http://www.oecd.org
11 ALNAP Guide: http://www.alnap.org/publications/eha_dac/pdfs/eha_2006.pdf

inception report should specify how these themes will be included and provide justification in the case that some of these may not be given priority.

The report will be assessed against *DAC evaluation quality standards*[12]. Comments will be collected from relevant stakeholders. Reference should also be made to Norad's Evaluation Guidelines[13] and to the ALNAP Quality Proforma[14].

6. Evaluation questions and concerns

This section seeks to identify relevant evaluation questions and concerns to be considered. Other questions/issues could be added to respond satisfactorily to the evaluation objectives, and the questions/issues could be regrouped and structured as needed.

The evaluation should assess the *relevance and appropriateness* of M6 interventions by considering whether or the extent to which:

- perceived needs of the affected population (different target groups) were met by the M6 interventions;
- M6 interventions were relevant, timely and adequate to the context and the problems they were seeking to address (and seek to identify why interventions were relevant and/or appropriate in some cases, and not in others);
- the underlying causes of the problems that the M6 interventions were trying to address were accurately diagnosed and adequately addressed, including identification ofinternal and external contextual factors that potentially could determine degree of success and failure;
- potential risks and pitfalls (posed by i.e. weak institutions, low capacity, existing conflicts, tensions, inequalities, coping mechanisms of women and men, capture of resources by local elites) were considered;
- planning, design and implementation of the interventions took into account the local context and institutional capacities;
- organisation and decision-making structures at government, local and community level were understood and taken into account;
- potential impacts on local markets were taken into account;
- the interventions were in conformity with the principles of good humanitarian donorship, Sphere standards for humanitarian action and Red Cross principles, codes and policies.

Effectiveness:

- Did the M6 interventions achieve intended objectives? Which outputs and outcomes were produced and how?
- Can effects on target groups be measured with respect to the effects the interventions were intended to produce – can measurable changes be observed?Was the effects on different target groups assessed and if so, how? Was gender relations, and women's and men's capacity, affected by the interventions?
- How were markets for affected and non-affected populations impacted by the importation of M6 inputs and the goods and services supplied by the interventions?
- Where there any unforeseen/foreseen negative or positive side-effects? Did the interventions have any unforeseen harmful impact?
- To what extent were unanticipated problems encountered and potential side-effects identified communicated and brought to the attention of MFA?

Coverage:

If possible, the evaluation should consider issues of coverage at the national or regional level, determining whether the M6 interventions provided support according to needs in different areas (should also address the "why" question), and at the local level (i.e. community, refugee camp), including determining who received support and why. Information on coverage should be broken down by social categories such as grouping, gender, age and ethnicity, where possible.

- Who was supported by the M6 interventions, and why[15]. Where relevant, attention should also be given to the situation of internally displaced persons (IDPs)[16].

12 http://www.oecd.org/dataoecd/30/62/36596604.pdf
13 Norad's Evaluation Guidelines: http://www.norad.no/items/5704/38/7418198779/EvaluationPolicy2006-2010.pdf
14 ALNAP Quality Proforma: http://www.alnap.org/pdfs/QualityProforma05.pdf
15 When possible, the evaluation should present an estimate of the proportion of those in need covered by the M6 and TSU interventions (expressed as percentage rather than absolute numbers).
16 Consideration of IDPs is often excluded since IDPs are not included in the international law that protects refugees.

- What were the main reasons that the intervention provided, or failed to provide, major population groups with access to project services and supplies (proportionate to their needs)?

Appropriateness, quality and use of needs assessments:
- How did the needs assessments direct M6/TSU responses, or alternative response options? How did needs assessments relate to international Flash Appeals? Based on what type of needs assessments and information were the M6/TSU interventions formulated?
- Were needs assessments founded on an adequate understanding of who was affected, where they were, and what were their immediate needs? How adequately were anticipated risks (such as vulnerabilities, potential for outbreaks) assessed? Did the assessed needs correspond to the actual needs of the populations? The extent of coverage of needs assessments (i.e. geographical coverage, population groups)? Did the assessment methodologies use guidelines prepared from a gender sensitive perspective?
- How did the situation and needs of different groups of beneficiaries change through the intervention period? How effective where the surveillance mechanisms and other subsequent assessments or surveys in directing/adjusting the M6/TSU operation? Where needs assessments in the aftermath of the disaster/immediate emergency done and taken into account?
- Was the timing of needs assessment appropriate? To what extent did they reflect longer term perspectives?

Efficiency:
The analysis would require comparing alternative approaches for achieving the M6 outputs and outcomes, including analysis of whether the M6 program and interventions represent an efficient alternative.
- What were the financial and human resources in relation to the outputs of the interventions? If possible, how does this compare with similar interventions elsewhere?
- Could the same results have been achieved at lower costs? Were inputs and resources used to their maximum potential? Were human resources managed well?
- Were institutional arrangements and administrative procedure sufficient at the level of MFA, NRC and implementing partners to deal efficiently with the M6 program and interventions in all phases of the implementation process?
- How well did the involved actors plan and coordinate their efforts; was there duplication of efforts or gaps?
- Were M6/TSU policies, plans, processes and activities consistent and complementary to the role and priorities of NRC, in which case, how?

Sustainability/Connectedness:
- Are outputs and outcomes sustained and are benefits likely to continue?
- The nature and strengths of partnerships – did it support connectedness, paying particular attention to needs for capacity strengthening, institutional collaboration, coordination as well as appropriate sequencing of the support?
- Did the interventions have the intention of building national/local capacity? Was national/local capacity utilised or displaced? Were national/local capacity supported and developed?
- Did adequate exit strategies (including timelines, allocation of responsibilities and details on handover to partner agencies, adequate availability of funding for post-response) exist and were they effectively applied?
- Was environmental consideration taken into account, and were mitigating measures put in place to reduce potential environmental risks? Have other relevant cross-cutting issues of concern been sufficiently considered?

Guidance and recommendations:
The M6 interventions should be assessed against alternative, realistic options taking into account the background for NRC's role in the supply of M6/TSU. The guidance and recommendations provided should be grounded on the comprehensive analysis undertaken in the foregoing parts. A set of key recommendations should flow logically from the most central and relevant findings, taking into account the humanitarian policies and standards of both MFA and NRC. Key lessons that may have generic application should be highlighted for lesson learning purposes. It would be necessary to focus the discussion on factors that can be

influenced by MFA, NRC and the implementing partners and to distinguish between findings at different levels and phases.

Some issues for guidance and recommendations include:
- What corrective actions and adjustment are recommended for possible future M6 interventions? How could an optimal design and implementation strategy which balances the overall goal of life saving and protection in a timely manner against the need for quality, efficiency, sustainability and a longer term perspective? How could optimal use after delivery be ensured?
- What constitute recommended guidelines for exit and phasing-out?
- How should lines of responsibilities, procedures, reporting, working methods and use of resources etc be adjusted in view of identified strengths and weaknesses in the functions and performance of MFA, NRC and implementing partners?

7. Methodology

It will be part of the assignment to develop the methodological framework for the evaluation. However, the following data collection methods should be included:
- Desk reviews, including archive material such as project documents, internal memos, progress reports and completion reports, reviews, statistics and relevant reports of humanitarian partners;
- Interviews of MFA, NRC, implementing partners and other relevant stakeholders as well as other forms of data gathering, in particular data on effects on beneficiaries;
- In-depth field studies to at least 3-4 countries of different TSU operations, and;
- Review of other relevant studies with a view to consider the extent to which the findings of this evaluation are coherent with, reinforce or contradict previous findings.

Suggested selection of field studies in 3-4 countries should be based on clear criteria, which should be presented in the inception report.One important criteria however, should be that the countries visited should have received at least 50 per cent of the cost of the TSU operation from MFA (using available information from the NRC review report). Additional criteria should relate to the purpose of the evaluation (accountability and learning).For comparison purposes it is important that a consistent methodology will be applied in the in-depth field studies. Documentation of the field work is needed in order to facilitate follow-up of the evaluation. Validation and feed-back meetings should be held at the country level before departure, involving key partners and stakeholders.

In order to minimise the bias of one group of stakeholders, different methodologies that can serve to triangulate data and findings are important. The methodology must enable the evaluation to consider the different effects of the M6 interventions on different groups in different contexts.

The question of the value framework of the evaluation should be part of the discussion in the inception report[17].The inception report should also account for techniques and tools for triangulation and validation and should highlight data gaps, weaknesses and possible risks. Data material underlying the analysis shall be available.

17 No evaluation can be “value-free” and values should be made explicit.

8. Time table, budget, evaluation products, reporting and organisation

Timetable

ACTIVITY	DEADLINE
Contract signature	11 September 2007
Inception report	25 September 2007
Report Draft Report Final	8 November 2007 3 December 2007
Publication, dissemination, seminar	December 2007

Budget

The budget ceiling is based on number of person weeks, which should be maximum 30 person weeks. The budget and work plan must include sufficient time for presentation of preliminary findings as well as the final report, both in Oslo.

Evaluation products and reporting[18]

The evaluation will produce the following documents:

- Inception report (of no more than 10 pages, excluding annexes)
- A final report, including lessons learnt and recommendations (of no more than 40 pages, excluding annexes)
- A stand-alone executive summary of the final report

The reports will be submitted for approval to Norad's Evaluation Department. The reports will be in English. The report will be in the name of the evaluation team, but is a product of Norad's Evaluation Department, and will be published by Norad. The evaluation team shall adhere to the terminological conventions of the OECD DAC Glossary on Evaluation and Results Based-Management[19] as well as the DAC Evaluation Quality Standards, the ALNAP Guide and the Norad Evaluation Guidelines[20]. For specifications regarding the reporting, please refer to the annex.

Organisation

The evaluation will be carried out by an independent team of consultants. The contract will be issued by the Evaluation Department (Norad), according to standard procurement procedures. Evaluation management will be carried out by the Evaluation Department and the team will report to the Evaluation Department.All decisions concerning ToR, inception report and report will be taken by the Evaluation Department. Any modification to the ToR is subject to approval by the Evaluation Department. The Team is entitled to consult widely stakeholders pertinent to the assignment, but it is not permitted to make any commitment on behalf of the Governments of Norway.Through the coordination of the Evaluation Department, the key stakeholders will have the opportunity to advise and comment on the quality of draft and final products. The evaluation team must take note of the comments. Where there are significantly diverging views between the evaluation team and stakeholders, this should be reflected in the final report.

9. Evaluation Team

The evaluation will be undertaken by a team of 3-4 external consultants and will report to Norad through the team leader.

The team will represent a balance of skills and experience, including (team as a whole)

- Competence and experience in evaluation of humanitarian responses
- Expertise on global humanitarian architecture, working principles and instruments
- Good knowledge of international development policies and processes
- Knowledge of the Red Cross movement and Red Cross emergency response work
- Experience with analysis of gender issues and environmental issues
- Languages: English, Norwegian (at least one team member must be able to read Norwegian as most archive material in NRC and MFA is in Norwegian)

18 See attached Report Specifications.
19 http://www.oecd.org/dataoecd/43/54/35336188.pdf
20 See. http://www.norad.no/items/4620/38/6553540983/Evalueringspolitikk_fram_til_2010.pdf

Relevant expertise from the South, preferably from a research institution, university or training institution based in the South, will be considered an asset, as well as a gender balanced team.

Team leader qualifications:

- Relevant experience with managing and leading complex evaluations
- Experience in evaluation principles and standards in the context of humanitarian responses

Annex 2 – Persons Inteviewed

Surname, Name	Org. and function	Place	Country
Asbjorn Eidhammer	NORAD - Evaluation Department Director	Oslo	Norway
Halvor Sætre	NMFA - Assistant Director General, Section for Humanitarian Affairs	Oslo	Norway
Hans Fredrik Lehne	NMFA, Ambassador, Madagascar, (Former Special Advisor Humanitarian Affairs)		Phone
Merete Brattested	NMFA, Ambassador, Thailand		Phone
Bjørn Johannesen	NMFA		Phone
Jonas Gahr Støre	NMFA, Minister for Foreign Affairs, (Former SG Norcross)	Oslo	Norway
Trond Røed	Norwegian Defence - Systems Managment Division	Oslo	Norway
Jan Egeland	Norwegian Institute for International Relations (NUPI), Director	Oslo	Norway
Trygve Nordby	Norcross, Secretary General	Oslo	Norway
Torvald Stoltenberg	Norcross, President	Oslo	Norway
Bernt Apeland	Norcross,Director Communication	Oslo	Norway
Svein Beksrud	Norcross - Head of Disaster Managment Unit	Oslo	Norway
Arnulv Torbjornesen	Norcross - Senior Adviser	Oslo	Norway
Dagne Hordvei	Norcross - Head of Logistic Section, Deputy Director of International Division	Oslo	Norway
Morten Borch-Jenssen	Norcross - Logistic Manager	Oslo	Norway
Erling Kvernevik	Norcross - Head of the National and International Emergency Aid	Oslo	Norway
Astrid Haugen	Norcross - Logistics Coordinator	Oslo	Norway
Trude Marie Nilsen	Norcross - National Preparedness Adviser	Oslo	Norway
Bente A.Mc Beath	Norcross - National Preparedness Adviser	Oslo	Norway
Trude Bang	Norcross - Regional Coordinator for East Africa, Development and Programme Support Unit	Oslo	Norway
Bodil Lawrence Ravn	Norcross - Head of the Development and Programme Support Unit	Oslo	Norway
Geir Andreassen	Norcross - Regional Coordinator, Development and Programme Support Unit	Oslo	Norway
Stein Brauten	Norcross - Relief Coordinator	Oslo	Norway
Halvor Fossum Lauritzen	Norcross - Former Head of Preparedness section	Oslo	Norway
Tørris Jaeger	Norcross - Head of unit, Dept. of Communications and International Humanitarian Law	Oslo	Norway
Ole Torstein Petersen	Norcross - Controller Ressources	Oslo	Norway
Elisabeth Sannes	Norcross - Controller	Oslo	Norway
Torben Henriksen	Norcross - Relief Coordinator, Eastern Asia	Oslo	Norway
Helene Vikan	Norcross - Relief Coordinator, MENA	Oslo	Norway
Werner Rorbach	ICRC - Head of Fleet Unit, Logistics Division	Geneva	Switzerland
Dario Moro	ICRC - Vehicle Fleet Manager, Logistics Division	Geneva	Switzerland

Surname, Name	Org. and function	Place	Country
Birgitte Olsen	IFRC - Acting Deputy Director for DM, and former Head of Logistics	Geneva	Switzerland
Ian Heigh	IFRC - Logistics Advisor	Geneva	Switzerland
Rob McEwan	IFRC - Senior Field Officer	Geneva	Switzerland
Ian logan	IFRC - Former Head of Operations	Geneva	Switzerland
Flemming Nielsen	IFRC - Head of Departement, operations Coordination Team	Geneva	Switzerland
Anja Toivola-Stambouli	IFRC, Special Advisor, Coordination & Programmes Division	Geneva	Switzerland
Abihish Mathur	Tatas Motors, Product Manager		Phone
Mr. Röhrich	Renault Germany, Homologation Department		Phone
Hervé Maillard	Renault Trucks International, Sales ManagerDirect Export Sales		Phone
Goran Zuber	IFRC - Global Fleet Coordinator	Dubai	UAE
Nenad Gobeljic	IFRC - Regional Fleet Coordinator	Dubai	UAE
Bob McCaffrey	IFRC - Head of Regional Logistics Unit	Dubai	UAE
Ari Mantyvaara	IFRC - Regional Logistics Coordinator	Dubai	UAE
Phil Jones	WFP - Project Manager Global Vehicle Leasing Programme, Former IFRC, Head of Regional Log. Unit	Dubai	UAE
Dierk Stegen	WFP - Regional Logistic Officer	Johannesburg	South Africa
Seija Tyrninoksa	IFRC - Country Representative	Johannesburg	South Africa
Erdal Bjarte	Norwegian Embassy - Counsellor	Phone	
Lorenz Pimpfinger	Speedag South Africa - Project Manager	Johannesburg	South Africa
Terje Vigtel	Royal Norwegian Embassy - Ambassador	Lusaka	Zambia
Hilten Bhagat	Hill and Delamain Zambia - General Manager	Lusaka	Zambia
Yawo Gameli Gavlo	IFRC - Head of Delegation	Lusaka	Zambia
Charles Mushitu	Zambia Red Cross - Secretary General	Lusaka	Zambia
Patrick Ngoma	Government of Zambia - M.P, former minister of Lusaka District	Lusaka	Zambia
Felix Edwards	WFP - Logistics Officer	Lusaka	Zambia
Patrick W. Chimutu	Christian Services Committee of the Churches in Malawi - Executive Director	Lilongwe	Malawi
Margret Mauwa-Roka	Micro Projects Programme - Social Development Specialist	Lilongwe	Malawi
Birna Halldorsdottir	IFRC - Relief Coordinator	Lilongwe	Malawi
Leif B.Sauvik	Norwegian Embassy - Counsellor, Head of mission	Lilongwe	Malawi
Richard Ngwira	Malawi Red Cross Society - Transport and Maintenance Officer	Lilongwe	Malawi
Ethel Kaimila	Malawian Red Cross - Director of Programmes and Development	Lilongwe	Malawi
Frankie S. Washoni	Malawian Red Cross - National Food Decurity Coordinator	Lilongwe	Malawi
Allan Katunga	Malawian Red Cross - Logistics Officer	Lilongwe	Malawi
Charles Rethman	Ministry of Economic Planning & Development - Food Security & Livelihood Advisor	Lilongwe	Malawi
Aurore Rusiga	WFP Malawi - Logistics Officer	Lilongwe	Malawi
Manzurul Hapue	WFP Malawi - Fleet Manager	Lilongwe	Malawi
Aswhini Rai	WFP Malawi - Head of Logistics	Lilongwe	Malawi

Surname, Name	Org. and function	Place	Country
Dom Scalpelli	WFP Malawi - WFP Representative and Country Director	Lilongwe	Malawi
Elsa Dohlie	Norwegian Church Aid - Country Representative	Lilongwe	Malawi
Francis Chinjoka Gondwe	Cham (Christian Health Association of Malawi) - Executive director	Lilongwe	Malawi
Lars Sommerland	UNHCR - Head of Supply Section	Nairobi	Kenya
Gasper Buni	UNHCR - Associate Supplies Officer Regional Hub East, Horn of Africa and Great Lake region	Nairobi	Kenya
Douglas Osmond	UNHCR - Snr. Regional Supply Officer Regional hub East, Horn of Africa and Great Lake region	Nairobi	Kenya
Abbas Gullet	Kenya Red Cross - Secretary General	Nairobi	Kenya
Susan D. Ng'ong'a	Kenyan Red Cross - Supply chain Manager	Nairobi	Kenya
Geoffrey Kitwan	Kenya Red Cross - Logistics Officer	Nairobi	Kenya
Holger Leipe	IFRC - former Head of Operation Indonesia, Regional Security Delegate	Nairobi	Kenya
Rob McConnell	WFP/ IFRC - Fleet Forum Director	Nairobi	Kenya
Elisabeth Jacobsen	Royal Norwegian Embassy - Ambassador	Nairobi	Kenya
Cathrine Siv Moe	Royale Norwegian Embassy - First Secretary		
Vibeke G. Soegaard	Royal Norwegian Embassy - Councellor (first secretary in the Embassy in Kenya during the M6 operation)	Bujumbura	Burundi
Bustari Mansyur	Indonesia Red Cross - Chairman, Aceh Chapter	Banda Aceh	Indonesia
Mette Kottmann	Norwegian Embassy - Counselor	Jakarta	Indonesia
Tai Ring THE	UNICEF - Programme officer - Reconstruction programme	Banda Aceh	Indonesia
Amara Bains	IFRC - Deputy Head of Delegation	Jakarta	Indonesia
P.G.Jensen	IFRC - Country health coordinator, Indonesia (ex-Head of Delegation, North Korea)	Jakarta(Pyong Yang)	Indonesia (North Korea)
Quasim Zahid	IFRC - Logistics Coordinator (ex-Asessment team member, RDRT)	Banda Aceh (AJK)	Indonesia (Pakistan)
Phillip Charlesworth	IFRC - Head of Sub-Delegation	Banda Aceh	Indonesia
Olav Ofstad	Norcross - Country representative	Banda Aceh	Indonesia
Pradeep Mittal	IFRC - Finance delegate	Jakarta	Indonesia
Bob McKerrow	IFRC - Head of Delegation, (ex Head of Regional Delegation,South Asia)	Jakarta (New Delhi)	Indonesia (India)
Kerrie Collett	IFRC - Programme Coordinator Aceh/Nias	Banda Aceh	Indonesia
Santi Arti	IFRC - Sr Administration Officer for HoD	Jakarta	Indonesia
Eddy Purwanto	Gov Indonesia - BRR, Rehabilitation & Reconstruction NAD-Nias Executing Agency	Banda Aceh	Indonesia
Ian Hatton	PT Hatfield - Environmental specialist	Banda Aceh	Indonesia
Chris Clark	WFP - Head of logistics support Unit, NAD-Nias	Banda Aceh	Indonesia
Don Abercrombie	British RC - Sr Logistics delegate(ex-ICRC in East Aceh, Sudan etc)	Banda Aceh	Indonesia (Sudan)
Kevin Duignan	IFRC - Construction Project Manager	Banda Aceh	Indonesia
Om Prakach Maurya	IFRC - Finance delegate	Banda Aceh	Indonesia
Syver Hvammen	Norcross - Deputy Country representative	Banda Aceh	Indonesia
Rachmawati	IFRC - Sr Organisational Development Programme officer	Banda Aceh	Indonesia
Sylvia Cut	IFRC - Fleet Officer	Banda Aceh	Indonesia

Surname, Name	Org. and function	Place	Country
Letty Sparrow	IFRC - (ex-HR Coordinator, Food Security Operation, Southern Africa)	(Durban, Johannesburg)	(South Africa)
Asif Aman	(ex-Pakistan RC, Programme Coordinator, Mansehrah)	Banda Aceh (AJK)	Indonesia (Pakistan)
Manfred Ronniger	IFRC Workshop Manager	Banda Aceh	Indonesia
Jyang D. Sukander	Indonesia Red Cross – Secretary General	Jakarta	Indonesia

Annex 3 – List of Documents

	Title	Authors	Date	Number of Pages
GENERAL	TSU Standard operations Procedures (SOP)	N	July 4th 2007	41
	Global TSP narrative	N	March 2005	6
	Database Full Printout	N	March 2005	102
	TSP Review Narrative – Operational Issues	N	March 2005	6
	TSP Review Narrative – Planning and Relationships Issues	N	March 2005	5
	TSP Review Narrative – Technical Issues	N	March 2005	5
	TSP Review - Global Report	Matthew Bader - Martin Betteley - Ingrid Fossland - Rob McConnell	February – March 2005	10
	NRCS M6 Evaluation Report	Morten Borch-Jenssen	March 2007	32
	ICRC - Emergency reports	N	2003, 2004, 2005	N
	US Clearance - Email to Norwegian Defense Logistics Organisation, and NRCS	John Doyle Ong, US ambassador in Norway	July 25th 2005	2
	US Clearance - Email to Norwegian Defense Logistics Organisation, and NRCS	David Quinn, Office of Regional Security, US department of State	July 22nd 2005	2
	M6 lastebiler fra forsvaret	NPA, Eva Bjøreng	October 9th 2002	1
	Overdragelse av Forsvarets lastebiler til norske frivillige organsiasjoner	NMoD, Astrid Helle Ajamay	July 10th 2002	3
	Overdragelse av Forsvarets lastebiler til bruk i forbindelse med humanitær innsats	NMoD, Astrid Helle Ajamay - Alex Winther	August 22nd 2002	2
	Søknad om økonomisk støtte	NPA, Eva Bjøreng	June 28th 2002	1
	Vedr forespørsel om overtakelse av lastebiler fra forsvaret	Norw Defence, Harald Einar Sveen	July 9th 2002	1
	Kjøp av utrangerte lastebiler fra forsvaret for nødhjelpsformål	MFA, Hans Fredrik Lehne	June 13th 2003	3
	Søknad om opprettelse av transportberedskapspool, følgebrev til søknad av 01.07.03	Norcross, Svein Beksrud	July 24th 2003	8
	Kjøp av utrangerte lastebiler fra forsvaret for nødhjelpsformål	NMFA, Lillian Wikstrøm	September 3rd 2003	3
	GLO 1030651 - Opprettelse av transportberedskapspool	NMFA, Lillian Wikstrøm Merete Fjeld Brattestad	September 11th 2003	2

	Title	Authors	Date	Number of Pages
CHAD	Chad - Oppføgingssøknad om økonomisk støtte til IFRC operasjon i Tsjad	Norcross; Jonas Gahr Støre - Halvor Fossum Laurizen	April 26th 2004	6
	Chad - 1040544 Søknad om tilleggstøtte til IFRC appell for sudanske flyktninger i Tsjad	MFA, Merete Fjeld Brattested	June 14th 2004	2
	Chad - Oppføgingssøknad om økonomisk støtte til IFRC operasjon i Tsjad	Norcross; Jonas Gahr Støre - Halvor Fossum Laurizen	June 21st 2004	6
	Chad - Vedr.: Sudan - SDN1040504	Norcross, Erlend Kvernevik	July 14th 2004	1
	Chad - 1040544 Søknad om tilleggstøtte til IFRC appell for sudanske flyktninger i Tsjad	MFA, Merete Fjeld Brattested	October 11th 2004	2
	Chad - Rapport sur le check up des camions Fédération	Sébastien Couturier, IFRC	November 21st2006	5
	Chad - Sluttrapporter med revidert regnskap	NFRC, Halvor Fossum Lauritzen	June 30th 2006	3
	Chad - 1040504 - Sluttrapportering	MFA, Halvor Sætre	October 17th 2006	
	Chad - Vedr.: Sudan - SDN1040504- Tilbakemelding på sluttrapport	Norcross, Dagne Hordvei	December 21st 2006	1
	Chad - Fleet management overview and staff training June 2007 Chad - Appeals, operational updates and reports	Nenad Gobeljic, IFRC IFRC DMISweb based Disaster Management System	June 30th 2007 various	9

NIGER	Niger - NER 1050464. Transport unit to help the food crisis in Niger	MFA, Bjørn johannesen	Auguts 3rd 2005	2
	Niger - End of mission report, 11.08.2005 - 10.02.2006	Nenad Gobeljic, IFRC Fleet Manager	February 2006	11
	Niger - End of mission report, 25.11.2005 - 06.09.2006	Roman Machover, IFRC Logistics Coordinator	September 2006	6
	Niger - TSP Evaluation report	IFRC		
	Niger - Appeals, operational updates and reports	IFRC DMISweb based Disaster Management System	various	

VARIOUS COUNTRIES	Haiti - Standard Project Report 2004 + financial section	WFP	February 2005	18
	Haiti - Fax - Alert: to a Potential Request for Transport Package for Haiti	WFP, David Morton	February 27th 2004	4
	Haiti - Fax - Norways contribution to WFP operations in Haiti - Norcross TSP	WFP, Dianne Spearman	March 29th 2004	1
	North Korea - Report on the use of M6 trucks	Norcross		2
	Overføring av et begrenset antall av forsvarets M6 lastebiler til Nord-Korea Røde Kors uten nødvendig godkjenning fra amerikanske myndigheter	NMFA, Fritjof Søgaard - Torgeir Teigum	June 28th 2005	3
	Lebanon - Report from Visit Oct. 2006	Morten Borch Jenssen, IFRC	October 20th 2005	4
	Appeals, operational updates and reports	IFRC DMISweb based Disaster Management System	various	

Annex 4 – Cost/Capacity Comparisons

The charts below seek to establish some points of comparison between various trucks. The trucks are chosen among those currently available on the global market. Each could in some cases be used instead of the M6 trucks, none is equivalent, although Unimogs, for which data were not available, can go anywhere that an M6 can. Tractors and trailers can go also in as many places; a study on transport in rural Africa by the TRRL, Transport and Road Research Laboratory, of the World Bank even suggested that tractors and trailers were more appropriate than trucks. Animal transport can go more places and can cost less.

The data should be regarded as indicative only. It is quite difficult to establish common costs in logistics, as the costs depends a lot on the organization running the fleet, the local conditions including various taxes and the emergency context of the delivery. In order to make this comparison possible, the evaluation team decided to consider only the fuel consumption and the purchase cost in determining the total cost. It was not possible to get very precise and standard operating cost for each of the trucks we sought to compare with.

Operating cost:
Some people are strongly convinced that the operating costs of the M6 are higher than the alternatives. The evaluation team found a lack of hard data and differing opinions in this regard. Some interviewees found that the M6 trucks are not that expensive to run compared with other trucks when operating in rough terrain, as they do not have expensive and fragile technology and some implementing partners learnt how to cannibalize them in an efficient way. The evaluation team therefore chose not to let the non-fuel operating costs influence the comparison. This was done by assuming a standard 0,25 USD cents non-fuel operating cost for all the trucks including the M6.

Depreciation:
The evaluation team proposes two models, one with depreciation over seven years. This is based on their technical life span, not the likely period of usage in emergencies (very few emergencies last that long…). Please note that the low purchase price of the M6s lead to significantly lower relative costs if it is assumed that the trucks in use cannot be sold at book value when the operation is over and therefore need to be written off more quickly.

The evaluation team also propose an analysis of depreciation over 3 years, as the trucks ran in emergency operations.

The three different models below illustrate the consequences of different assumptions.

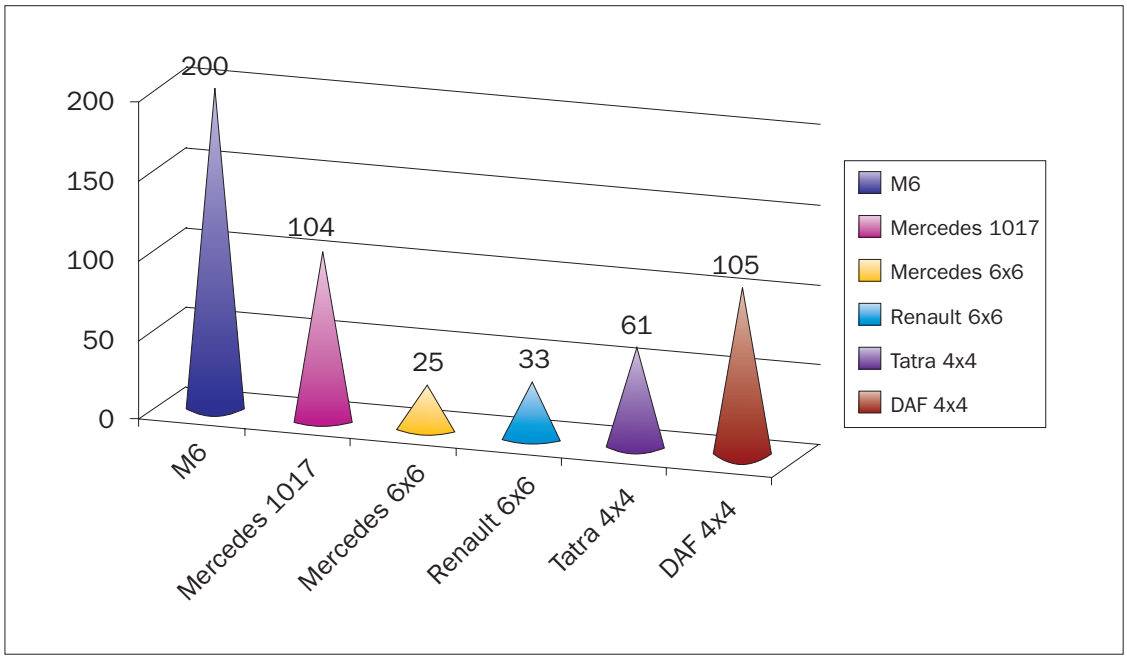
Payload:
In the first model calculation, the tonnage considered is the maximum capacity of the trucks. Model 2 and 3 use estimate payload in rough terrain, as the M6 is said to be justified due to its rough terrain capacity (2.3t).

Furthermore, as the numbers in the table below do not include all the costs related to the use of the trucks, such as indirect cost including delivery, warehousing, training, which are mainly needed for the M6, they should be regarded only as indicators for comparisons.

The various trucks which are compared cannot be used in the same terrains, and it is recognized that none of the truck can go in all the places where the M6 goes. This should be taken into consideration while looking at the high cost per tonnes.

Alternative purchase possibilities

Budget avalaible for 200 units						
Total MFA budget	$1.599.885,00					
Scrap value for M6	$1.000.000,00					
Shipping cost	$1.082.417,00					
Total	$3.682.302,00					
The Scrap value is a estimated figure an assumption whereby the rest value is estimated at 5.000,- USD						
	M6	**Mercedes 1017**	**Mercedes 6x6**	**Renault 6X6**	**Tatra 4X4**	**DAF 4X4**
Purchase value or upgrade landed number of units budget allows to purchase	$ 18.412	$ 35.412	$ 148.412	$ 110.000	$ 60.000	$ 35.000
	200	104	25	33	61	105
The below table shows the amount which could be purchased using the above budget model.						
	M6	**Mercedes 1017**	**Mercedes 6x6**	**Renault 6X6**	**Tatra 4X4**	**DAF 4X4**
Purchase value or upgrade landed number of trucks	$ 18.412	$ 35.412	$ 148.412	$ 110.000	$ 60.000	$ 35.000
	20	20	20	20	20	20
Total	$ 368.240	$ 708.240	$2.968.240	$2.200.000	$1.200.000	$700.000



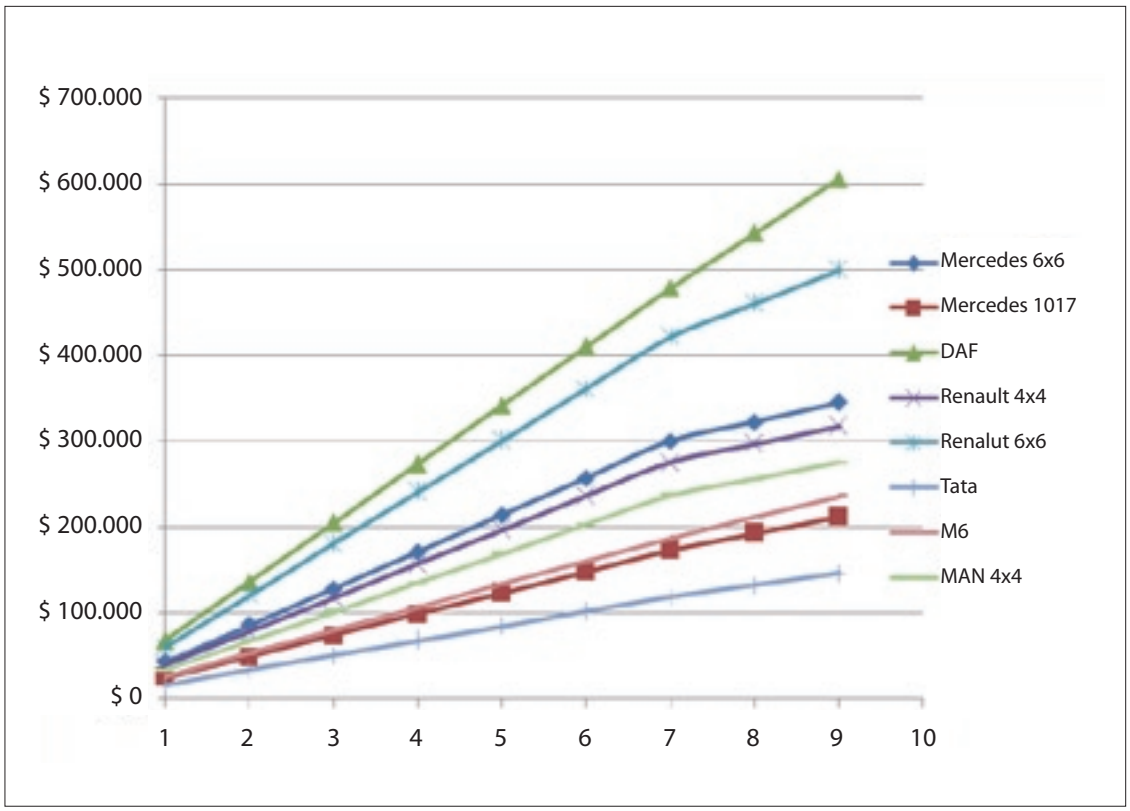
This graph refers to the first chart

Model 1: straight depreciation over 7 years.

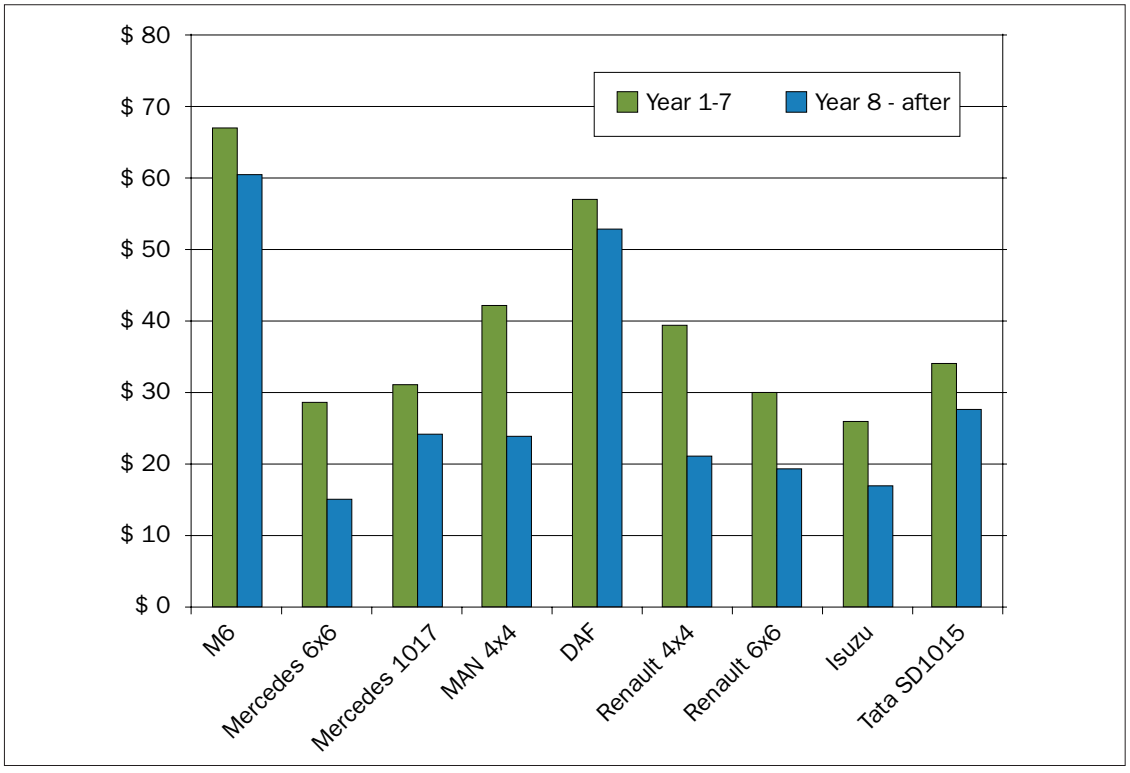
	M6 Trucks	New Trucks Purchase							
	M6	**Mercedes 6x6**	**Mercedes 1017**	**MAN 4x4**	**DAF**	**Renault 4x4**	**Renault 6x6**	**Isuzu**	**Tata SD1015**
Comments		Much bigger payload but can't operate in all terrains because it is too heavy.	4X4 then difficulty when operating off road		Larger truck. Similar characte-ristics than the Mercedes 6x6, and same difficulties when driven off road				Fuel consump-tion and payload similar to the M6, but can't work in all the terrain.
Total Purchase Cost	18412	143.000	37.000	103.008	35.000	128.800	151.200	70.000	22.000
Yearly depreciation [1]	2630	20429	5286	14715	5000	18400	21600	10000	3143
Maintenance 0,25/km for 30000 km	7500	7500	7500	7500	7500	7500	7500	7500	7500
Fuel Consumption per km	0,5	0,45	0,36	0,35	1,68			0,33	0,19
Fuel Cost per km						0,45	1,04		
Fuel Cost per 30 000 km	16650	14985	11988	11655	55944	13500	31200	10989	6327
								0	
Total Cost - 30000 km	26780	42914	24774	33870	68444	39400	60300	28489	16970
60000	53561	85827	49547	67741	136888	78800	120600	56978	33940
90000	80341	128741	74321	101611	205332	118200	180900	85467	50910
120000	107121	171654	99095	135482	273776	157600	241200	113956	67879
150000	133901	214568	123869	169352	342220	197000	301500	142445	84849
180000	160682	257481	148642	203223	410664	236400	361800	170934	101819
210000	187462	300395	173416	237093	479108	275800	422100	199423	118789
240000	211612	322880	192904	256248	542552	296800	460800	217912	132616
270000	235762	345365	212392	275403	605996	317800	499500	236401	146443
Output by Trucks in metric tonnes	4	15	8	8	12	10	20	11	5
Considering 100 trips of 300km, yearly delivery	400	1500	800	800	1200	1000	2000	1100	500
Cost per Tonne : Yearly price / yearly tonnes delivered									
Year 1-7	66,95	28,61	30,97	42,34	57,04	39,40	30,15	25,90	33,94
Year 8 - after	60,38	14,99	24,36	23,94	52,87	21,00	19,35	16,81	27,65

Fuel Price considered for all the vehicles 1,11 dollar/liter

Cost per truck in dollar, based on 30 000 km for each truck, including straight depreciation of the purchase cost on 7 years.



Relative cost per tonnes in dollar

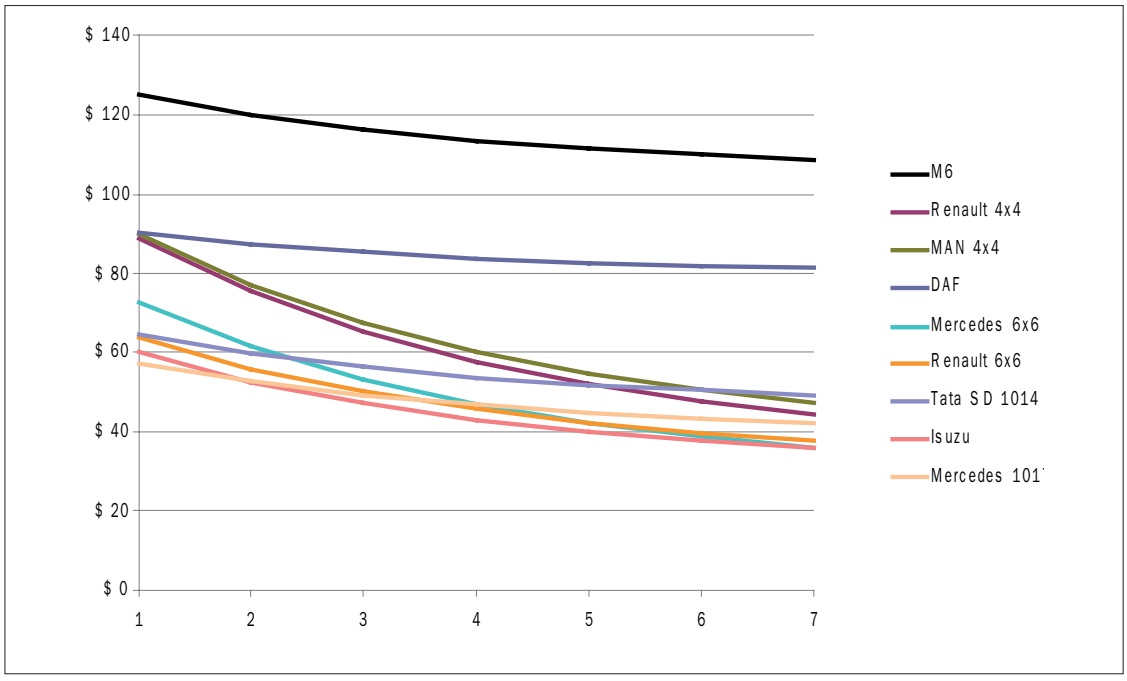


Model 2: 25% yearly depreciation over 7 years

	M6 Trucks	New Trucks Purchase							
	M6	Renault 4x4	MAN 4x4	DAF	Mercedes 6x6	Renault 6x6	Tata SD1015	Isuzu	Mercedes 1017
Total Purchase Cost	18412	128800	103008	35000	143000	151200	22000	70000	37000
Yearly depreciation [1]	25%	25%	25%	25%	25%	25%	25%	25%	25%
In Year 1	4603	32200	25752	8750	35750	37800	5500	17500	9250
In Year 2	3452	24150	19314	6563	26813	28350	4125	13125	6938
In Year 3	2589	18113	14486	4922	20109	21263	3094	9844	5203
In Year 4	1942	13584	10864	3691	15082	15947	2320	7383	3902
In Year 5	1456	10188	8148	2769	11312	11960	1740	5537	2927
In Year 6	1092	7641	6111	2076	8484	8970	1305	4153	2195
In Year 7	819	5731	4583	1557	6363	6728	979	3115	1646
Maintenance 0,25/ km for 30000 km	7500	7500	7500	7500	7500	7500	7500	7500	7500
Fuel Consumption per km	0,5		0,35	1,68	0,45		0,19	0,33	0,36
Fuel Cost per km		0,45				1,04			
Fuel Cost per 30 000 km	16650	13500	11655	55944	14985	31200	6327	10989	11988
								0	
Yearly Cost – 30000 km	28753	53200	44907	72194	58235	76500	19327	35989	28738
60000	27602	45150	38469	70007	49298	67050	17952	31614	26426
90000	26739	39113	33641	68366	42594	59963	16921	28333	24691
120000	26092	34584	30019	67135	37567	54647	16147	25872	23390
150000	25606	31188	27303	66213	33797	50660	15567	24026	22415
180000	25242	28641	25266	65520	30969	47670	15132	22642	21683
210000	24969	26731	23738	65001	28848	45428	14806	21604	21134
Off Road tonnage	2,3	6	5	8	8	12	3	6	5
Considering 100 trips of 300km, yearly delivery off road	230	600	500	800	800	1200	300	600	500
Cost per Tonne : Yearly price / yearly tonnes delivered									
Year 1-7	66,95	39,40	42,34	57,04	28,61	30,15	33,94	25,90	30,97
Year 8 – after	60,38	21,00	23,94	52,87	14,99	19,35	27,65	16,81	24,36
Cost per tonne									
Year 1	125,01	88,67	89,81	90,24	72,79	63,75	64,42	59,98	57,48
Year 2	120,01	75,25	76,94	87,51	61,62	55,88	59,84	52,69	52,85
Year 3	116,26	65,19	67,28	85,46	53,24	49,97	56,40	47,22	49,38
Year 4	113,44	57,64	60,04	83,92	46,96	45,54	53,82	43,12	46,78
Year 5	111,33	51,98	54,61	82,77	42,25	42,22	51,89	40,04	44,83
Year 6	109,75	47,74	50,53	81,90	38,71	39,73	50,44	37,74	43,37
Year 7	108,56	44,55	47,48	81,25	36,06	37,86	49,35	36,01	42,27

	M6 Trucks	New Trucks Purchase							
	M6	**Renault 4x4**	**MAN 4x4**	**DAF**	**Mercedes 6x6**	**Renault 6x6**	**Tata SD1015**	**Isuzu**	**Mercedes 1017**
Alternative assumptions:									
Disposal after one year with only 25% of initial capital cost recovered after local taxes are paid									
Additional cost	9206	64400	51504	17500	71500	75600	11000	35000	18500
Average cost per tonne	165,04	196,00	192,82	112,12	162,17	126,75	101,09	118,32	94,48
Disposal after two years with only 20% of initial capital cost recovered after local taxes are paid									
Depreciation	14729,6	103040	82406,4	28000	114400	120960	17600	56000	29600
Average cost per tonne	137,02	120,87	120,72	96,81	99,61	82,65	75,42	77,48	68,58

Relative cost per tonne in dollars

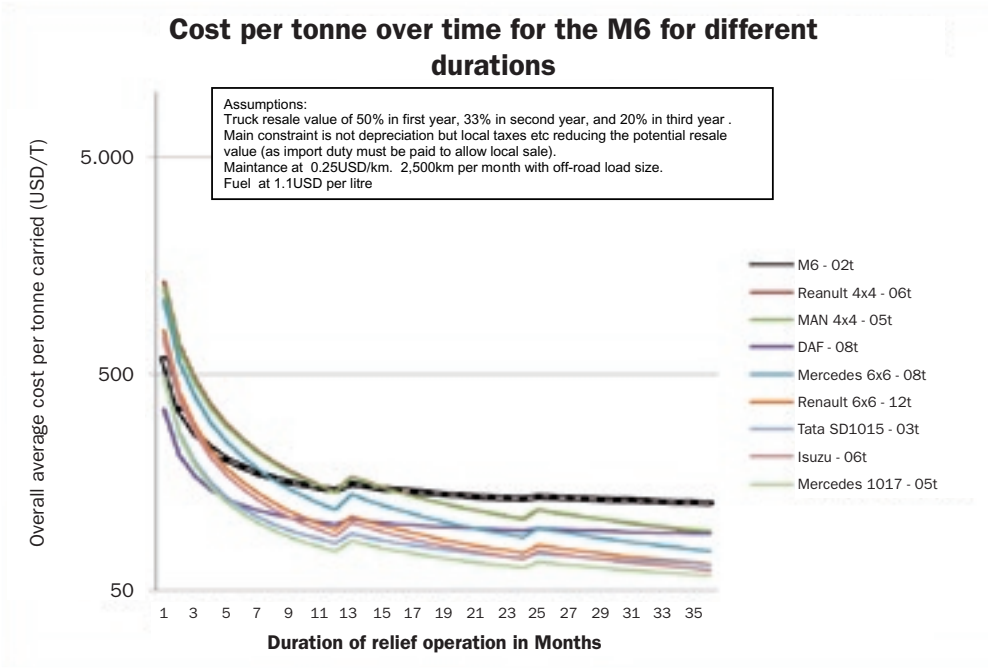


Model 3: decreasing depreciation over 3 years.

While trucks do not depreciate as rapidly as cars (which can lose 25-33% of their value in the first month) it might be appropriate to have a far larger depreciation in the first year or two, If one applies a residual value depreciation rule of 25% or 20% you get a truck of 100,000 worth 13,000 or 21,000 after 7 years - which is not very far off the mark.

		M6	Renault 4x4	MAN 4x4	DAF	Mercedes 6x6	Renault 6x6	Tata SD1015	Isuzu	Mercedes 1017
Capital Cost		18412	128800	103008	35000	143000	151200	22000	70000	37000
Resale value in Year 1	50%	9206	64400	51504	17500	71500	75600	11000	35000	18500
Resale value in Year 2	33%	6131,196	42890,4	34301,66	11655	47619	50349,6	7326	23310	12321
Resale value in Year 3	20%	3682,4	25760	20601,6	7000	28600	30240	4400	14000	7400
Maintenance cost per month		625	625	625	625	625	625	625	625	625
Fuel Cost per month		1387,5	1125	971,25	4662	1248,75	2600	527,25	915,75	999
Off Road tonnage		2,3	6	5	8	8	12	3	6	5
8.3 trip per month: Tonne/ month		19,09	49,8	41,5	66,4	66,4	99,6	24,9	49,8	41,5
Months		M6 - 02t	Renault 4x4 - 06t	MAN 4x4 - 05t	DAF - 08t	Mercedes 6x6 - 08t	Renault 6x6 - 12t	Tata SD1015 - 03t	Isuzu - 06t	Mercedes 1017 - 05t
	1	587,66	1.328,31	1.279,52	343,18	1.105,03	791,42	488,04	733,75	484,92
	2	346,54	681,73	658,99	211,40	566,62	411,90	267,16	382,34	262,02
	3	266,17	466,20	452,15	167,47	387,15	285,39	193,53	265,21	187,73
	4	225,98	358,43	348,73	145,51	297,42	222,14	156,72	206,64	150,58
	5	201,87	293,78	286,68	132,33	243,58	184,19	134,63	171,50	128,29
	6	185,80	250,67	245,31	123,55	207,69	158,89	119,90	148,07	113,43
	7	174,31	219,88	215,76	117,27	182,05	140,81	109,38	131,34	102,82
	8	165,70	196,79	193,60	112,57	162,82	127,26	101,50	118,79	94,86
	9	159,00	178,83	176,36	108,91	147,86	116,72	95,36	109,03	88,66
	10	153,65	164,46	162,57	105,98	135,90	108,28	90,45	101,22	83,71
	11	149,26	152,70	151,29	103,58	126,11	101,38	86,44	94,83	79,66
	12	145,61	142,90	141,89	101,59	117,95	95,63	83,09	89,51	76,28

Months		M6 - 02t	Renault 4x4 - 06t	MAN 4x4 - 05t	DAF - 08t	Mercedes 6x6 - 08t	Renault 6x6 - 12t	Tata SD1015 - 03t	Isuzu - 06t	Mercedes 1017 - 05t
Year 2	13	154,91	167,84	165,82	106,67	138,72	110,27	91,61	103,06	84,88
	14	151,37	158,36	156,72	104,74	130,82	104,70	88,37	97,91	81,61
	15	148,31	150,15	148,84	103,06	123,98	99,88	85,56	93,44	78,78
	16	145,63	142,96	141,94	101,60	118,00	95,66	83,11	89,54	76,30
	17	143,26	136,62	135,85	100,30	112,72	91,94	80,94	86,09	74,11
	18	141,16	130,98	130,44	99,16	108,02	88,63	79,01	83,02	72,17
	19	139,28	125,93	125,60	98,13	103,82	85,67	77,29	80,28	70,43
	20	137,59	121,40	121,24	97,20	100,04	83,01	75,74	77,82	68,87
	21	136,06	117,29	117,30	96,37	96,62	80,60	74,34	75,58	67,45
	22	134,66	113,55	113,72	95,60	93,51	78,40	73,06	73,55	66,16
	23	133,39	110,14	110,45	94,91	90,67	76,40	71,90	71,70	64,99
	24	132,23	107,02	107,45	94,27	88,07	74,57	70,83	70,00	63,91
Year 3	25	136,29	117,90	117,89	96,49	97,13	80,96	74,55	75,92	67,66
	26	135,10	114,72	114,84	95,84	94,48	79,09	73,46	74,19	66,57
	27	134,00	111,77	112,01	95,24	92,03	77,36	72,45	72,59	65,55
	28	132,98	109,04	109,38	94,68	89,75	75,75	71,52	71,10	64,61
	29	132,03	106,49	106,94	94,16	87,63	74,26	70,65	69,71	63,73
	30	131,14	104,11	104,65	93,68	85,65	72,86	69,84	68,42	62,91
	31	130,31	101,88	102,52	93,23	83,80	71,56	69,08	67,21	62,14
	32	129,53	99,80	100,52	92,80	82,06	70,33	68,36	66,08	61,42
	33	128,80	97,84	98,64	92,40	80,43	69,18	67,69	65,01	60,75
	34	128,12	96,00	96,87	92,03	78,89	68,10	67,06	64,01	60,11
	35	127,47	94,26	95,20	91,67	77,44	67,08	66,47	63,07	59,51
	36	126,85	92,61	93,62	91,34	76,08	66,11	65,91	62,17	58,95



Annex 5 - Financial Figures - Norcross

OPERATION	Number of Trucks	COST OF GOODS	% of the country total	Estimate cost per Trucks[1]	STAFF COSTS	% of the country total	Estimate cost per trucks	DELIVERY COSTS[1]	% of the country total	Estimate cost per trucks	OPERATING COSTS	% of the country total	Estimate cost per trucks	CASH CONTRI-BUTIONS	% of the country total	TOTAL COSTS	M6 Share of Costs	% M6 share of costs	Number of Trucks	Cost Per Trucks
Haiti	32	1.161.207	31%	28.561	288.935	7,62%	7.107	2.033.487	53,63%	50.015	308.404	8,13%	7.585	0		3.792.033	2.984.558	79%	32	93.267
2004																				
Indonesia	98	1.382.422	7%	13.686	2.312.620	12,29%	22.896	9.162.222	48,69%	90.708	1.589.826	8,45%	15.740	4.369.065	23,22%	18.816.155	18.255.898	97%	98	186.285
2005-2006																				
Kenya	50	3.592.803	28%	69.054	1.081.274	8,36%	20.782	2.431.365	18,80%	46.731	1.719.694	13,30%	33.053	4.107.651	31,76%	12.932.785	12.428.400	96%	50	248.568
2006																				
Lebanon	27	412.866	20%	15.291	476.602	22,55%	17.652	417.805	19,77%	15.474	196.375	9,29%	7.273	60.987	2,89%	2.113.517	2.113.517	100%	27	78.278
2006																				
Niger	70	6.275.559	27%	73.026	2.438.214	10,42%	28.373	8.903.490	38,04%	103.606	747.006	3,19%	8.693	5.043.881	21,55%	23.408.179	19.067.425	81%	70	272.392
2005-2006																				
North Korea	5	24.628	13%	4.926	545	0,28%	109	76.258	38,89%	15.252	94.632	48,27%	18.926	0		196.063	196.063	100%	5	39.213
2004																				
Pakistan	40	829.274	6%	20.732	414.543	3,16%	10.364	9.927.298	75,78%	248.182	17.608	0,13%	440	1.752.438	13,38%	13.099.632	13.099.632	100%	40	327.491
2005-2006																				
Southern Africa	203	17.454.342	47%	58.474	4.271.693	11,41%	14.311	1.375.285	3,67%	4.607	1.905.701	5,09%	6.384	12.415.873	33,18%	37.422.894	25.450.284	68%	203	125.371
2002-2005																				
Chad	29	2.385.351	33%	75.579	596.844	8,22%	18.911	2.499.344	34,42%	79.190	370.424	5,10%	11.737	1.409.162	19,41%	7.261.125	6.671.890	92%	29	230.065
2004- 2006																				
Upgrades to M6 trucks		7.766.000	28%	14.018	1.116.465	4,07%	2.015	755.083	2,75%	1.363	17.783.300	64,85%	32.100	0		27.420.848	27.420.848	100%		1.600.930
TOTAL	554	41.284.452	28%	15.115	12.997.735	8,87%	20.454	24.891.442	17,00%	39.171	24.732.970	16,89%	38.922	29.707.940	20,28%	146.463.231	127.688.515	87%	554	230.485

1 Estimate cost per trucks is calculated as per the following formula: total cost of the category * the percentage of total M6 share of cost on the total country cost / number of trucks used.
Hence this cannot be considered as real costs as they don't reflect the variation of the % of the M6 share of cost in the various categories.

This chart, extracted from the internal evaluation of the Norcross undertaken in March 2007 and developed further, represents the costs which were supported by Norcross for the management of the project. It is interesting to notice the difference in the proportion in the project which can be explained by mode of delivery; by air or by sea. Financial management within Norcross was included in the country operations; planning at the application stage, regular review of the budget, and closure of the project.

Unfortunately, it has not been possible access sufficient data to create a reconciled budget for all costs related to M6. Such costs have been borne by the various partners involved in the project. The diversity of accounting systems and financial reporting between the main organizations and the operations in the countries is such that establishing a total budget is simply not possible.

Income

Operation	GOVERNMENT GRANTS	% of the country total	TIED FUNDS	% of the country total	EARMARKED FUNDS	% of the country total	FREE FUNDS	% of the country total	OTHER INCOME	% of the country total	TOTAL
Haiti 2004	3.792.033	100%									3.792.033
Indonesia 2005-2006			16.818.232	89,38%					1.997.923	10,62%	18.816.155
Kenya 2006	2.061.450	15,94%	5.461.492	42,23%	4.537.819	35,09%	1.025	0,01%	871.000	6,73%	12.932.786
Lebanon 2006	1.980.654	93,71%			132.863	6,29%					2.113.517
Niger 2005-2006	14.303.985	61,11%	8.995.228	38,43%			108.966	0,47%			23.408.132
North Korea 2004	176.457	90,00%	10.857	5,54%	8.750	4,46%					196.064
Pakistan 2005-2006	6.079.752	46,41%	7.019.641	53,59%			240				13.099.393
Southern Africa 2002-2005	26.415.457	70,59%	9.110.095	24,34%	1.728.379	4,62%	168.963	0,45%			37.422.894
Chad 2004-2006	5.991.008	82,51%	1.268.701	17,47%			1.417	0,02%			7.261.126
Upgrades to M6s[1]	26.716.228	97,43%					704.620	2,57%			27.420.848
Total	87.517.024	60%	48.684.246	33%	6.407.811	4%	985.231	0,67%	2.868.923	1,96%	146.500.000

[1] In 2006 Norcross received a grant of NOK 5.3 million from the Ministry of Foreign Affairs to upgrade the M6s. Approx. NOK 100,000 has been used so far, which has been included both as income and an expense in the tables. NOK 5.2 million of the grant is therefore not included under government grants, as it has yet to be used.
Source Norcross internal evaluation report of March 2007, percentages added. The table presents the costs separated by sources of income.

ANNEX 6 - Country Specific Findings

a) Southern Africa - Overall Context

Key stakeholders in the Federation and the WFP were, in 2002, essentially in agreement that a serious food deficit situation was building in southern Africa. However, funding was scarce and donor focus was elsewhere (e.g. WFP had MUSD 3 response to a MUSD 69 appeal).

The Federation, in May, conducted a fairly ambitious needs assessment exercise with a cross-sectoral group of experts. This assessment concluded that the looming crisis was caused by complex set of factors requiring a complex, long-term response. Two months later the situation was seen having deteriorated significantly and the planned response was regarded as weak and insufficient. The original assessment was reviewed with a much larger presence of operational, relief-oriented people. The planned response was massively scaled up, now including a partnership with the WFP and the TSP component.

The consensus assessment was that the local transport markets lacked capacity to absorb the needs of a major food security operation. It was considered a given that off-road transport capacity did not exist.

The sense of urgency generated by the impending food deficit situation was accentuated by a debate in the humanitarian world concerning the impact of the HIV AIDS pandemic. Several reports referred to a “not business as usual” food deficit situation. The argument was that the current deficit situation was affecting a population already weakened by the effects of the HIV AIDS pandemic. One of the consequences, it was argued, was that people living with HIV AIDS (PLWHA) were more dependent on good nutrition and less capable of travelling to distant distribution points than a healthy population would be.

In terms of infrastructure the Southern Africa region, outside South Africa itself, had an underdeveloped roads network beyond the major arteries. In the dry season this was generally not a problem for the local transporters, while in the wet season some areas became completely inaccessible and local transporters refused to accept contracts for shipment of these areas.

There was significant uncertainty concerning the direction in which Zimbabwe was moving. In addition WFP was grappling with the after-effects of one of the regional governments having sold their preparedness stock, financed by the WFP, with the proceeds difficult to trace. Meanwhile, the Federation had launched itself as the world’s largest and most capable relief organisation in concerted political and public relations effort spanning several years. The organisation was now being asked to show that it could “walk the talk”. Hence, both organisations were under significant pressure to deliver.

The Norwegian Red Cross´s offer of trucks was gratefully accepted.

b) Zambia

Even if it is now considered as food sufficient, Zambia, at the time of the intervention, had experienced a period of drought and regular flooding which made the food security situation difficult between 2001 and 2004. Food distribution was therefore a big issue, and the need for a TSP was proven especially considering the difficult terrains in some areas of the countries.

A memorandum of understanding was signed between the WFP and IFRC from November 2002 to 30th June 2004. This memorandum of understanding spelt out the responsibilities of IFRC and those of the WFP. IFRC was assigned to manage the fleet of M6 trucks, employing or contracting national staff, maintenance, fuel, spare parts etc. The federation was also responsible for procurement while WFP responsibilities included instructions for deployment and financial reimbursement. The costs that were incurred by the IFRC were reimbursed by the WFP.

The evaluation team has not found any needs assessment specific to Zambia, produced prior to the trucks being sent from Norway. The TSP in Zambia consisted of

- 116 M6 trucks,
- one fuel tanker,
- one rescue vehicle,
- 12 Toyota Land Cruisers,
- 2 Toyota Pick Up,
- one fork lift,
- a collection of spares and accessories
- four Rubb – Halls.

Eight staff to maintain and service the M6 trucks, spare parts to be used in the repair of these trucks were brought in from Norway.

The fleet was operated by WFP/IFRC together with the implementing partners, World Vision, Zambia Red Cross, Program Against Malnutrition (PAM), the Norwegian Church Aid and Lutheran World Federation.

The road infrastructure, which was very poor at this time, has improved a lot in recent years. The trucks are therefore no longer relevant in most of Zambia, except in the rainy season. One can notice some anecdotes: during the operation one M6 truck, blocked in a flood area, was left under water a few months, as the water level increased, and taken back afterwards without any damage that prevented it to be used for further transportation after maintenance. In some villages that the M6 could reach, this was the first time since 1964 that a truck was coming.

It remains unclear to us whether Zambia had designed a comprehensive approach to disaster preparedness and if the request for M6 trucks was part of this design. The disaster management unit is an arm of government in the office of the Vice President whose mandate

is to manage disasters throughout the country. As an arm of government, they also monitor as to how aid is managed.

The disaster management unit is of the opinion that trucks were well received and appreciated. They had an advantage because they were 6 by 6 trucks and were able to negotiate any terrain, were all weather trucks and could use any kind of fuel such as petrol, paraffin, etc.

The trucks were cut up and smelted after use.

The Zambia Red Cross

The Zambian Red Cross was brought into the process at a late stage. The National Society reacted against the Federation running transport operations in their country for the benefit of the WFP. They were worries about the impact on the National Society. These concerns included worries about future fundraising difficulties due to an increased perception that the National Society was very rich, the risk of inappropriate behaviour by drivers or image problems related to accidents and the difficulties feared by being associated with the organisations to which the WFP deliveries were made when the National Society had no control over how the beneficiaries were chosen.

The M6 trucks were huge. As they drove through the country people were mocking them and children were chanting.

Drivers were interviewed and recruited by the International Federation of Red Cross, through an agreement with a South African employment agency. None of the drivers are still working for the Red Cross. Their contact addresses were not known by the Red Cross at the time of this study. The only exception is that of a Mr. Derrick Chisenga who is currently working for the Norwegian Red Cross in Asia.He was the fleet manager at the time. He was interviewed during the field trip to Aceh and his information is integrated in this country case.

An example of how the delivery took place would be the following: Food for Kafue and Luangwa districts was delivered by both the WFP and the disaster management unit (Zambian government) to a central point in Luangwa and the implementing partners (NGOs) delivered it to the communities in need of food. He evaluation team was told that the most efficient delivery of food was done by the WFP using the M6 trucks. In other districts food was delivered by tractors from the central point of delivery.

Before the M6 trucks came to Zambia, local transporters were hired to transport food.They were said to be expensive and were not in a position to go on sandy and swampy areas.

There was no thought given to the impact these trucks would have on the health of the people or the damage they would cause to the environment such as roads. What was important at the time was to provide people with food.

World Food Program

Phase one:

This phase was from November 2002 to June 2004. The Federation managed the fleet. The Federation was responsible for the truck maintenance, fuelling arrangements, spare parts and tyre procurement. All the costs incurred were reimbursed by the WFP. The federation posted eight ex-patriots throughout the country to manage the operation. As a result of the bumper harvest in Zambia, the food needs were reduced and therefore the activities were downsized. Information is available that during the phase II of the operations some trucks were sent to Malawi (21), Mozambique (30), Lesotho (2). Fifty were retained in Zambia. Ten were parked as reserve in Zambia. Three trucks were written off during phase 1 of the operation.

Three operational bases were retained. All support staff namely fifty drivers, mechanics were employed through outsourcing with Capital Outsourcing Group.

The operation was reviewed in December 2003 and the numbers of trucks were scaled down to 30 trucks. And staff adjustment was also made. The trucks were redeployed for the country

programmes and refugee operation. Neither the operation nor the exit strategy addressed the environmental and the health impact of the M6 trucks on the people of Zambia. The focus was merely on the provision of a service.

Norwegian Church Aid

The Norwegian Church Aid has five trucks which are currently in Chipata. One is in a running condition while the rest are non-runners. Norwegian Church Aid seconded their allocation of trucks to the Lutheran World Federation. The Lutheran World Federation used the M6 trucks for the repatriation of refugees. The last time they were used was at the beginning of the year 2006. Since then they are packed at the WLF offices in Chipata.

Norwegian Church Aid has requested information on the correct procedures to use in the destruction of these trucks from the US Embassy in Oslo. They have had no response yet. However, since Malawi is close to Chipata than Lusaka, the trucks will be towed to Malawi for destruction together with those operating in Malawi.

World Vision

World Vision used the M6 trucks in Choma and Kalabo.

The Red Cross had their own drivers and World Vision hired them. The transport costs, fuel were paid by WFP to Red Cross. The role of World Vision was only to monitor the fuel movement and the organisation had no sense of ownership. The trucks were ideal and could get to the most difficult places.

The country did have transport companies that could have been contracted to ferry the food but charges would have been high. For example, in Kalabo World Vision is charged K7000 per km per tonne. Although there was no cost analysis done and the Word vision was not paying for the operational costs, they found use of these trucks cost effective. Furthermore, there are places in Zambia where a 6 by 6 truck is needed and none of the transport companies in Zambia had trucks with 6 by 6 capabilities. These places are sandy, swampy and different types of trucks are required - hence the M6 trucks.

The M6 trucks were multipurpose and able to use paraffin or other fuels. During that period there were also fuel shortage and these trucks were able to take any fuel.

Disaster Management Unit: Vice President's Office

The information available to the Disaster Management Unit in the vice Presidents office of the Zambian Government is that the World Food Program requested for the M6 trucks and government was simply informed.

Apart from requesting support from WFP, Government was not an active participant in any arrangements regarding the M6 trucks, neither were they informed by WPF of the exit strategy for the trucks.

Conclusion

The Zambia usage of the M6 can be questioned but the need of trucking capacity at that time should not be. The local market would have not been able to have met the operational needs for special transport capacity. The TSU as a concept lived up to expectations in terms of providing a specific transportation service.

Meanwhile, there was a mismatch between perceived and expected roles, mandates and expectations among and within the various organisations involved. This caused friction and inefficiency at times and has resulted in differing opinions about the intervention.

c) Malawi

TSP was deployed in Malawi in 2002 in order to be used by WFP for the regular food emergency situations that the country is subjected to. There was a bad harvest in 2002 and a joint FAO -- WFP assessment mission estimated that 3.2 million people were facing food shortages. In January 2004, the Government of Malawi appealed for urgent international assistance to help feed more than 3.5 million hungry people. In 2005, there was more

prepositioning, but with 400 000 tonnes shortfall, prices rocketed. The first three months of the year are typically a lean period in Malawi, as grain reserves run out ahead of March harvests. Planting in many regions, particularly in the south, has been delayed because of insufficient rainfall, and the government fears poor harvests this year, yet again, could cause severe food deficits.

Even if the road situation is not very good, the use of M6 concerns mainly 3 areas. Apart from food crisis, there is also a need for school feeding programmes deliveries, which concerns each time rather small quantities in many various areas. TSP was also required for deliveries of health supplies by local NGOs. The programme is still operational in Malawi.

The usage of the M6 in Malawi is more justifiable than in Zambia mainly because of the terrain. There were initial fleet management problems as stakeholders did not communicate well. This has changed since the fleet was turned over to and managed by WFP. A huge effort has been made to establish a TSU which is today part of the disaster preparedness. It is adapted to current needs. The number of beneficiaries and crises where large scale humanitarian aid is needed has been reduced. Primary stakeholders' capacities have been developed. The Malawi government has managed to increase their capacity to provide a stable food supply in the country. Farmers are healthier and can provide for themselves and sell their products. The economy has been strengthened. Some interviewees speculate that the M6s have contributed to this development by helping people stay on or near their farms and healthy enough to plant for the next season.

d) Haiti

The purpose of the operation was to prevent further deterioration in the food security of the most vulnerable groups affected by civil unrest in the North; North East and metropolitan areas of Port au Prince. In 2004, the anti-Aristide rebel group Front de Résistance de l'Artibonite took control of the Haiti's fourth largest city of Gonaives on 5 February. The revolt spread across the north and west and twelve cities fell under rebel control.

The situation became difficult for humanitarian operations, both for security and practical reasons, as the most of the roads were blocked. The TSP was used in operations whose aim was to increase caloric intake of people living in cut off areas affected by unrest, focusing on children under 3 years old, anaemic pregnant or lactating women.

The operation also assisted an additional caseload affected by natural disasters following the June (South East, West) and September floods.

A total of 32 vehicles were dispatched by sea from Norway in 2004, the responsibility was handed over to WFP at the end of the operation.

e) North Korea

The evaluation team has not visited North Korea. Nor have very many others and the pool of potential interviewees is therefore limited, as is the available documentation. The five trucks were delivered in 2004.

Several key stakeholders are of the opinion that Red Cross activities in North Korea have a value in and of themselves and cannot meaningfully be assessed according to normal operational criteria.

The lack of prior consent from American authorities caused unnecessary bureaucratic and political difficulties. The trucks are likely to have contributed positively to the public image of the North Korean Red Cross.

The trucks have been used in both in times of emergency, especially floods, and for more day-to-day duties as decided by the North Korean Red Cross. To date, three trucks are still operational. They are managed by the North Korean Red Cross.

f) Tchad (Chad)

In December 2003, UNHCR estimated that 65 000 refugees had crossed the border into Chad, fleeing the conflict situation in Darfur. Reports indicated that the fighting in Darfur province was intensifying and additional cross-border movements were feared. The refugees were spread out along a 5 - 600 km long border in very inaccessible regions. Local authorities had identified two sites capable of holding approximately 30 000 people each.

It was estimated that the necessary supplies were already in the UN pipeline. Hence, the most urgent need was deemed to be logistical support to the Red Cross of Chad to ensure that supplies could be distributed to the beneficiaries in a consistent and effective manner (IFRC, appeal December 2003).

Chad is currently hosting 281 000 refugees from the central African Republican in the South, from the Darfur area of Sudan in the east, and an urban caseload from several other countries of origin in the capital Ndjamena. In Eastern Chad, refugees are assisted by the UNHCR in 12 different camps established between January 2004 and May 2005 at an average distance of 60 km from the Chadian -- Sudanese border[1].

An IFRC needs assessment took place 31.10-16.11.2003 resulting in an appeal in Dec of that year, requesting 20 M6 trucks. Norcross sent a consultant to assess the needs, local transport capacity, road standards etc. This assessment also found the M6 trucks to be suitable for the needs and Norcross (General Secretary and Director of International and National Assistance) approved the operation on 10 December 2003. In the IFRC revised Appeal 9 more M6 trucks were requested.

1 UNHCR real time evaluation 2007, http://www.unhcr.org/research/RESEARCH/46a4ad450.pdf

Norcross looked upon themselves as being solely a donor giving equipment, technical personnel and funds to run the operation for 6 months. All trucks sent by plane due to the geographical location (far away from any sea port).

The IFRC Appeals stated a need to transport food and other aid supplies in Eastern Chad + possible assistance in the south where Chad RC was supporting 60 000 refugees together with UNHCR. In the end 48 000 refugees were supported first with transport from Darfur/border of Sudan then afterwards with both food and non food items in the refugee camps.

The need was for transportation in areas without infrastructure and where infrastructure had been washed away during heavy rains.

The IFRC delegates in Chad had not been informed/briefed about the M6 trucks being seconded to IFRC and did not have the understanding of its capacities and it was therefore not used efficiently. The Norcross delegates then took their own initiatives to get the most efficient use out of the M6 trucks.

The evaluation team was informed that there was no alternative local transport capacity in Chad. M6 trucks were used in areas local trucks could not go. Local contractors used where possible. Airlift was not an option due to the proximity of the Sudanese border and possible air attacks.

Due to worsening of the emergency, the Norcross M6 operations where prolonged to May 2006. The M6 intervention is still ongoing but suffering from bad coordination and organization in CRC and IFRC as well as lack of funding. Most of the CRC staff trained by Norcross are no longer with CRC or have been moved from the position they held in relation to fleet management. Hence, there is a lack of capacity inside CRC for sustainable continuous use of M6 trucks in their set-up.

The M6 trucks were originally meant to be donated to CRC. They are currently on permanent loan to CRC but will be transferred as soon as the end use certificate issue has been solved (this refers to the need for US Government permission to transfer military asset of US origin to new owners).

Approximately 20 trucks will be handed over, 7 to be cannibalized for spares to the rest, more spares should be made available from Niger (TSU exit).

Norcross is still working to finalize the exit strategy for the Chad intervention.

g) Niger

In 2004 and 2005, countries in the Sahel region experienced the worst locust invasion since 20 years coupled with low rainfall and drought which left the region with a severe food crisis and malnutrition. Reports indicated millions of people threatened and children dying. The cereal production shortfall in Niger was estimated at 15 percent compared to the average annual production of the preceding five years (IFRC, appeal dated 22nd July).

Officially it was the IFRC Emergency Appeal which asked for the Norcross TSU/M6 capacity but Norcross was very active in promoting the TSU to IFRC and pressed for IFRC to take the M6 trucks. Norcross did an assessment in July 2005 (which recommended 35 trucks) and the IFRC Appeal is dated 22 July (which requested 70 trucks).

The evaluation team has not been able to find an explanation as to why double the amount of trucks was sent. The final decision to accept IFRC's request for M6 trucks was taken by Norcross GS.

Norcross looked upon themselves as being solely a donor giving equipment, technical personnel and funds to run the operation. Meanwhile, Niger RC appears to believe that Norcross has made bilateral commitments in terms of establishing a regional disaster preparedness base, including M6 trucks.

The M6 trucks were to be made available to all humanitarian actors in the area.

No environmental aspects were evaluated for the operation.

20 M6 trucks were sent by air, and 50 M6 trucks sent by sea.

The M6 trucks proved to be the truck for the last difficult mile in many cases in Niger but only approximately half the fleet was used, indicating that the original needs assessment was clearly professional and the later doubling of the number of M6 trucks sent unnecessary.

18656 tonnes of food and other aid were distributed with the M6 trucks.

One needs to notice the lack of good communications between Norcross and IFRC and WFP before and in the initial stages of the operations. There was a lack of a MoU when the trucks arrived which made the scope of the operation unclear and difficult to manage. The management structure of the TSU was not clear and this lead to unclear roles and responsibilities. IFRC and WFP clearly disagreed about what roles they should play within the TSU operation. Due to the lack of clear lines and responsibilities and the low usage of the M6 trucks the Norcross delegates took themselves initiatives to get the trucks used, actively seeking out different actors in Niger and offering their services.

The Niger authorities were negative to the M6 trucks due to lack of information about the trucks in beforehand.

TSU was not well established within IFRC organization and several IFRC delegates thought the TSU was a bilateral project. This was not very surprising as the TSU was not integrated into the IFRC logistics set up (not in the IFRC asset list for Niger). They had their own workshops and did all their own maintenance for all their assets (not only trucks but Land Cruisers and Prados as well).

No exit strategy existed from the start. Meanwhile, key stakeholders feel that part of the original idea with the intervention was to leave the trucks in Niger after operations in regional disaster preparedness storage.

There were no plans for Exit at the beginning of the operation. The trucks were on loan from Norcross. In June 2006 it was decided from IFRC Niger, IFRC Global Fleet Base and Norcross to make a Disaster Preparedness (DP) in Niger with 30 M6 trucks (to be used in the whole Sahel region). The last 40 trucks were meant to be sent to Dubai but high transport costs ruled this option out and the trucks are to be dismantled and used for spares to the 30 trucks in the DP+ M6 trucks in Chad.

It is unclear to us as to how much this disaster preparedness storage is now under development.

h) Indonesia

On the 26 December 2004, a massive earthquake off the west Coast of Northern Sumatra led to movement along a 1200 km section of the sea floor. This generated a series of tsunamis that killed people in 14 countries around the Indian Ocean. Entire coastal zones were destroyed, with the tsunamis causing damage up to 3 km inland in some cases. Over 227 000 people lost their lives and some 1.7 million were displaced. Aceh province was hit within 20 minutes, accounted for more than half of the deaths and sustained damage which in economic terms corresponded to an entire year's GDP for the province[2].

Existing infrastructure along the western coast was completely destroyed along extended stretches. The disaster here struck a province where a majority of the population still lived in poverty and where political life and government structures had been heavily impacted by internal conflict for over 30 years.

The normal IFRC appeals process was suspended in the aftermath of hte Tsunami. First mention of the trucks is in operational update 28 dated 2nd January 2005. Through interviews and email correspondence the evaluation team knows that the IFRC did request the trucks.

2 Based on TEC synthsis report, www.tsunami-evaluation.org

They were delivered by air and off loaded in Bataam due to the over-crowding of airports closer. Following customs processes and local delivery, they became operational late February/early March. Given that they were used for transports that would otherwise not have taken place or would have had to be made by helicopter the additional cost of air freight is highly likely to have been justified in this case.

There is consensus among our sources that the trucks did an excellent job in terrain that no other form of transport could have traversed. They were well managed and maintained. In cases where they caused damage, the IFRC saw to it that the damage was repaired. None of the interviewees saw their military background as a problem although they were used in a post (or suspended) conflict situation.

They had a good reputation, even with local transporters, partly due to a generous attitude to helping other trucks across difficult passages (i.e. pulling them through or out of the mud), partly due to a consistent strategy of withdrawing them from road stretches as these improved and became accessible to commercial trucking. Most see them as replacing only helicopter transports during the relief phase (the first nine to twelve months).

In the reconstruction phase, according to government authorities, the trucks made it possible for IFRC member RC societies to operate in inaccessible areas that other organisations without this kind of logistical backup had avoided.

Meanwhile, British RC chose to function in a difficult area without using the M6 services and IFRC was critisised for using the trucks in Nias, against the advice of their own assessment, resulting in significant infra-structure damage there.

However, overall this was an example of how the M6s can best be used, almost a ”school-book intervention”.

i) Pakistan

A magnitude 7.6 earthquake struck Pakistan’s North West Frontier Province and both Pakistan and Indian administered Kashmir at 08:51 local time on the morning of Saturday October 8th. The epicentre was near Balakot. The earthquake killed nearly 75,000 people and seriously injured a similar number.

While buildings probably accounted for the majority of casualties, many were killed by large landslides, some with millions of tonne of rock. These landslides buried villages or swept them away. They also closed roads and isolated villages and towns. More than 1,000 aftershocks of magnitude 5 or greater were recorded in the following three weeks. Some of these aftershocks provoked further landslides.

Of the total housing stock, 84 percent was damaged and destroyed in AJK and 36 percent was damaged or destroyed in NWFP. Between 3.2 million to 3.5 million people were affected by the disaster and were in need of assistance, including winterized shelter, medical care, food and water and sanitation facilities[3].

Pakistan has a fairly well developed road and transport sector. The army is well organised and controls all large scale disaster response activities. National resources were overwhelmed and there was severe damage to roads. However, with few exceptions overall road conditions did not motivate the use of specialised trucks like the M6.

The decision to send the M6s was based on the fear that winter was approaching and winter conditions would have made them much more relevant. The Pakistan RC/IFRC did request the trucks, based on a needs assessment made by a joint FACT/RDRT[4] team. The FACT team was led by Halvor Fossum Lauritzen.

Norcross decided to send more than double the number of trucks requested. The winter turned out to be much milder than feared. There was limited use of the trucks partly because of the

3 Pakistan 2005 Earthquake: Early recovery framework - With preliminary costs of proposed interventions, UN 16 nov 2005, http://www.reliefweb.int/rw/RWB.NSF/db900SID/RMOI-6J89V9?OpenDocument&rc=3&emid=EQ-2005-000174-PAK

4 FACT: Field Assessment and Coordination Team composed of experienced disaster response people from the IFRC network.
RDRT: Essentially the same as a FACT but recruited from the region with in-depth understanding of local conditions.

damage they caused the narrow, sensitive roads. Other reasons for limited use were operating costs, that the winter turned out to be milder than expected, and concerns regarding safety as the trucks do not have a backup system, should the primary braking system fail (making them unsuitable for mountain roads).

The following year the trucks were re-exported to Dubai. Some of the same trucks were later sent to the ICRC for use in Lebanon.

Some interviewees felt the trucks should never have been sent, others that they would have been useful a normal winter (and even the following winter when they had been reexported). Some mention that the PRCS most likely gained from the visual impact of the trucks in their public relations efforts. There is consensus that far too many trucks were sent.

j) Kenya

Transport is a key ingredient in the development process. Indeed there is a strong relationship between efficient road network and development process (Muchori, 1998). Absence of/poor road network hinders the movement of goods and services from a supply side to where they are demanded.

In 2006, five consecutive years of drought had ravaged arid and semi-arid parts of Kenya devastating livelihoods and leaving some 3.5 million people - almost 10% of the population - facing the risk of starvation. Kenya was one of the worst-affected countries in the Horn of Africa. The latest crisis was caused by the failure of the October-December short rains in the north and erratic and patchy rains in the east. This immediately spelled disaster for the pastoralist community. Scores of people and tens of thousands of livestock died from starvation and hunger-related ailments. Rates of child malnutrition reached the alarming levels. At the beginning of 2006, the Government of Kenya declared a state of emergency and appealed for international support to save the lives of people threatened by famine.

Following the drought, Kenya experienced a devastating flood episode that destroyed further the poor road infrastructure. This further led to loss of lives and immense destruction of livelihoods. The worst impact of the October 2006 -February 2007 mild El Nino floods was the outbreak of the haemorrhagic Rift Valley Fever. This happened even before pastoralists communities in Northern Kenya had recovered from the effects of the massive loos of livestock during the drought.

The vulnerability of rural households was further exacerbated by a recent outbreak of Rift Valley Fever (RVF). This rare viral disease, of which very little is known, killed at least 160 people since it was first reported late December 2006, nearly half of them in Garissa District,

the epicentre of the outbreak. The outbreak and subsequent spread of RVF resulted in the closure of key livestock markets as well as a ban on movement and slaughter of animals accentuating the precarious status of pastoralists' welfare that almost exclusively depends on livestock as the principal source of food and income. All markets and meat outlets were closed. The impact was particularly severe for pastoralists in the northeast and coastal areas. Although a significant vaccination campaign for livestock and other prevention activities are ongoing in all affected districts, trade prospects are limited after the ban.

Thus, despite good water and pasture availability, food security remained precarious for pastoral and agro livelihoods in northern Kenya and eastern districts as households grappled with income losses. Prices for food commodities had soared beyond the purchase capacity of many families. To survive, people were forced to change their food consumption patterns which had an adverse impact on their nutritional status.

In 2005 the Kenya Government and WFP requested KRCS to assist in the drought operation. The KRCS requested IFRC to provide assistance. The appeal included a TSU and assistance for water and sanitation activities.

Based on past experience the KRCS doubted the IFRCs ability to provide the needed help in time and the secretary general therefore contacted Norcross directly. Following discussion between top management in the two societies it was agreed to deploy a TSU.

It was further understood that the deployment should not only be for this disaster but should become prepositioned disaster preparedness TSU for the region. Assessments had been done by the KRCS using the Branches in the affected region. IFRC sent the Head of transport to evaluate the needs of TSU. He recommended a different number of trucks than KRCS had requested. This resulted in delays. A memorandum of understanding was signed in April 2006.

The trucks had been in January requested and arrived in April. At the same time a team of 3 expatriates arrived with responsibility to start the operation and train their counterparts over a period of 6 month.

The TSP arrived too late for the draught operation but proved very useful in the flooding period which followed, and was dispatched among the most sensitive areas, including for transportation of refugees in the Somali border.

Initially water was transported over a distance of 150 km which resulted in extreme difficulties. This was later changed by moving treatment plants around whenever possible. This cost for hiring of a truck (tanker) was at that time up to 5.000 USD per day. After the arrival of the M6 trucks market prices immediately declined.

The evaluation team found that in some cases, prior to the arrival of the M6s, the distance for the beneficiaries to the distribution points was up to 100km. Only the population which had donkeys or camels received there rations. A large number of the population did not receive their food as it was impossible for them to reach the distribution sites. World Food Programme, in Dec. 2006 – March 2007, tried reaching some areas through airdrops but had difficulties reaching the beneficiaries because of the swamps.

Using the M6 in the different operations increased the presence of the KRCS and gave good publicity. This resulted in increased cash flow from fundraising and helped to fund the floods and drought operation in 2005 and 2006, a total of USD 7.5 million.

Among the target groups for the programs were hospital and schooling projects. A learning by doing approach resulted in an new MOU with the different stakeholders.

At present a total of 42 units out of the 50 units are operating. So fare 6 units have been cannibalized. 2 for the existing units are support vehicles (1 crane recovery unit and 1 w/s unit).

It was initially difficult to purchase spare parts but researching the local market has been positive. Small manufacturers are producing all parts needed for regular service in small

quantities as well as consumables like break lines etc. these manufacturers are been checked to guaranty that they do not use for example asbestos materials. The only current difficulty is parts like injector pumps and cylinder heads.

Reporting tools like the "fleet wave" computer programme where never been given to the KRCS. KRCS provided the figures and the expatriate entered them into fleet wave or the data was sent to Dubai. An agreed Excel format was given in the beginning but changed from expatriate to expatriate.

It was KRCS understanding that the trucks were donated and they therefore ceased reporting to Dubai after the expatriates finished their mission.

UNHCR is renting part of the fleet at present. This is on a contract bases which includes all running cost plus a surplus which is to create additional funds for new trucks.

Ongoing re-evaluation for the situation in Uganda has resulted in a request by the Ugandan operation to continue with the program as it is still needed.At present a combination of 3 Mercedes 6X4 trucks, 2 Isuzu 4x4 trucks and 4 M6 is been deployed (refer section on Uganda below).

General findings:

- M6 trucks have been identified as appropriate in delivering of humanitarian aid and response to emergencies.
- Local transporters as well as the government expressed the concern that during emergency, there is need for an efficient transport system. Despite the operational cost, M6 trucks have been preferred due to the fact that they can withstand rugged terrain or in areas where road network is absent.
- The Kenya Red Cross was involved in management and operations of the M6 trucks. This has contributed to the successful utilization of the M6 Trucks.
- The Kenya Red Cross is a credible organisation and collaborates with Kenya government in responding to emergencies.
- The Government Ministries (Water and Special Programmes) acknowledges the support from Norwegian government in provision of M6 trucks. The M6 trucks have been utilized in the areas such as vaccine, transporting food staff human beings in emergency areas.
- The deployment of the M6 to Kenya has been special as it was a kind of a pilot project. Using the national society as an implementing partner was new. The idea was, from the very beginning, to provide a service as part of an overall disaster preparedness strategy. Due to recurrent disasters in the region the fleet has been active throughout.

The Kenya example is a strong indication that the concept of the TSU is viable and valuable. The strategy of pre-positioning of the M6s has been effective. In the past, the TSU was centralized in Nairobi. The response time was longer and coordination was not effective. Positioning the TSU close to the problematic areas and where the disaster preparedness stock is, is meeting the needs. Short-comings have been the missing administrative management tools. The staff is today trained in managing the fleet but could improve their data collection. This would result in a better monitoring which would assist in evaluating and monitoring the cost of the fleet.

Cross cutting comments

A group of women interviewed identified crossing the bush to distribution points as a hazard for women, especially single women, due to the risk of rape. The same group lauded the use of the M6s as they decreased the distance to distribution points.

In Kenya, most conflicts are resource-based, e.g. competition for water, land and pasture. Unfortunately, areas where such conflicts occur are characterized by weak / absence of transport system. As such, it becomes very difficult to transport humanitarian aid efficiently in such areas. Poor road network coupled with inadequate capacity of local transporters (types of trucks as well as capacity to handle emergency operations) hinders local transporters from participating in delivery of humanitarian aid. This aggravates latent local conflicts. By implication, the M6 trucks are not only relevant in such areas but also very appropriate.

k) Lebanon

The conflict which occurred in July and August 2005 led to the destruction of much of the infrastructure in southern Lebanon and Beirut. Large population groups were displaced within the country and to the neighbouring states. Problems of health and sanitation rapidly appeared. In preparation for a drawn out conflict, ICRC requested Norcross and the Federation to provide a TSU consisting of staffing, 25 M6 trucks and 6 support vehicles on July 31.The fleet was sent from Dubai the 10th August to Amman where they arrived the 18th; they preceded to Beirut the 21st: The delay was partly caused by miscommunication within the Norcross/IFRC structures[5].

The trucks were used to deliver food, essential households items, medical goods, emergency water supply which proved to be essential considering the speed of the changes. Documentation does not allow separate analysis of M6 transportation as these interventions are not reported separately.

The need for a special transportation unit appeared also for WFP, which asked NRCS for 10-15 tonnes trucks, as they were using the TSU in South Africa, but they refused the M6 for this operation. The ICRC requested the trucks be demobilized 15th October.

The M6s were eventually donated to the Lebanese civil defence, a decision that surprised the IFRC who were under the impression that there was an agreement to use them for Dubai-based, long term preparedness purposes.

l) Uganda

Eastern Uganda experienced unusually heavy rainfall in the summer and fall of 2007. This resulted in massive flooding and landslides. It was estimated that 89 000 households had been severely affected and 58 000 households had been displaced (IFRC emergency appeal September 20th 2007). In connection with these floods the Uganda RC/IFRC requested and received M6 support from the Kenya RC.

The combination of using 15 to Mercedes trucks and small Isuzu and M6 trucks was an effective solution in Uganda. The Mercedes trucks were used for the shuttling of goods into the field sites and the ISUZU and M6 trucks for the final distribution.

Unicef used the M6 trucks for the vaccination programs and there Measles and Malaria campaign.

It was understood that the only alternatives to M6s were helicopters and barges. UN tried to deliver food to the flood victims by air which had disappointing results as food was damaged by water or beneficiaries had difficulties with reaching the drop of points.

The programme would not have been able to run without the M6s or similar transportation resources. There were high costs but previously helicopters would have been used for some of the missions now undertaken with M6s. This would have entailed much higher costs.

Some people complained that roads where M6s have passed became even more impassable for other trucks afterwards.

5 IFRC Dubai thought the trucks had gone through certain maintenance before being sent from Pakistan. On visual inspection, in preparation for sending them to Lebanon, this turned out not to be the case. The trucks were therefore held up for maintenance, in Jordan, en route to Lebanon.

ANNEX 7 – Team Composition

The consultants selected represent the various technical skills required for the assignment in terms of knowledge of evaluation, fleet management in emergency, military logistics, Norwegian policy, humanitarian emergencies and specific geographical areas. The team is composed of European, African and Asian consultants. The non-European consultants were selected after choosing the countries to be visited. Selection criteria included a focus on local context and selected cross-cutting issues. Each team member is potentially biased. The bias is generally related to the members' competence as we may see the fields in which we invest our careers in a different light than others.

Mr Björn Ternström is an experienced evaluation team leader. He combines his evaluation work with a thriving management consultancy in Sweden. He is an economist with competence in organisational development as well as humanitarian aid, with a background in the Red Cross Movement. His consulting work includes intervention mapping, change process design, leadership development and facilitation in the implementation of needed change. He has a reputation for discrete, low-key interventions with high impact on organisational functioning, especially in terms of clarification of decision making processes, of internal communication and of managing disparate loyalties in complex organisational environments. He is of Swedish nationality and has occasionally worked as a consultant of Channel Research.

His potential bias in this context would be related to his background in the Red Cross.

Ms Turid Laegreid has worked with evaluations, research, management and coordination of humanitarian response since 1994. She has held senior positions with UNOCHA in Iraq, Sudan (Darfur and the North/South return programme) and Indonesia. She was the evaluation advisor at the Norwegian Refugee Council, where she developed the evaluation policy, and coordinated several evaluations. Laegreid has led several organisational learning exercises, both for the UN, NGOs and inter-agency experiences. She has a very good understanding of the Norwegian humanitarian policy, both as a former researcher at Norwegian Institute for International Relations. A Norwegian national, she is based in Oslo and works out of Nordic Consulting Group.

Her potential bias in this context would be related to her background within the Norwegian aid establishment.

Mr. Aksel Steen-Nilsen is a humanitarian operations manager with a background in military logistics, and experience of emergency evaluations and programme reviews. With direct experience of humanitarian operations in Lebanon, Angola, Sudan, Mr Steen-Nilsen also benefits from inside knowledge of the Norwegian NGO scene. He operated the trucks in the past, and is the one team member who has actually driven them.

His potential bias in this context would be related to his technical and managerial orientation.

Mr. Andreas Wohlert has extensive experience in fleet management for vehicle fleets up to 450 light and heavy duty vehicles, addressing issues such as warehouse management for food, non food items, medical items and spare parts, fuel, managing a vehicle leasing programme, management of staff up to 165 local and expatriates, supply chain management, customs clearing and forwarding, managing a vehicle testing programme, finance and administration including budget control.

His potential bias in this context would be related to his technical and managerial orientation. He is, since February of 2007, a board member of a NGO that was implementing partner in Moçambique.

Professor Nkandu Luo is a Zambian medical doctor and was minister of Transport and Communications in the government of Zambia in 1999-2001, minister of Health Dec 1997-March 1998, and deputy minister of Health Dec 1996-March 1998. She has a PhD in Immunology from the London School of Hygiene and Tropical Medicine and is used to develop and implement programmes of development related to health and HIV/AIDS for international organisations. She benefits from an in depth knowledge of the national transportation sectors, economic and social issues and of the key stakeholders.

Her potential bias in this context would be related to her medical background and her senior Governmental positions.

Mrs Jacqueline Muchori Nyokabi is Kenyan national with more than 10 years experience in evaluation, consultancies and implementation of capacity building programmes for local civil society organisations. She has a Master of Arts in Geography with a specialisation in Rural Development, and a Bachelor of Arts in Geography and Sociology, both from Egerton University. She has an in depth knowledge of the gender related issues, of conflict analysis and conflict sensitivity, as of HIV/AIDS policies.

Her potential bias in this context would be related to her specialisation and to her civil society orientation.

Mr Virza S. Sasmitawidjaja is an Indonesian environmental specialist with experience in evaluation and consultancies for humanitarian assistance, relief, rehabilitation and development. He is graduated of aMS in Business Strategy and Environmental Management, of the University of Bradford, United Kingdom, 1997, as of a BA Economics, of the University of Indonesia, Jakarta, Indonesia, 1996, and of a BS in Aquatic Resource Management, of the National Fisheries Institute, Jakarta, Indonesia, 1989.

His potential bias in this context would be related to his technical specialisation and to his in-depth involvement with aid operations in Aceh.

Ms Cécile Collin is a professional project management specialist with a focus on deployment of teams in difficult conditions, in very short timeframes. She has been facilitating complex evaluation tasks, and also gained field experience in Africa and the Middle East. She has a background in business management, with a focus on financial analysis. She is used to database management.

Her potential bias in this context would be related to her specialisation and to her employment with Channel Research, which has previously been involved in evaluating Norcross.

Mr John Cosgrave is a professional evaluator and trainer in the humanitarian sector, and is currently leading an evaluation of ECHO operations in Pakistan. Mr Cosgrave previously carried out a review of the NPA mine action programme in Angola for Norad in 2000. He has also carried out evaluations and reviews (usually as team leader) of humanitarian response and recovery assistance for Danida, Irish Aid, ECHO, OCHA, USAID, WFP, the EC, CARE, DRC, RedR, and the Disasters Emergency Committee in the UK. Mr Cosgrave was the evaluation advisor and coordinator for the Tsunami Evaluation coalition (co-author for the synthesis report and author for the expanded summary of the synthesis). Recent evaluation work has included the evaluation of WFP's Darfur programme (2006), the response to the 2007 Mozambican floods, and ECHO's response to the 2005 Pakistan earthquake.

Mr Cosgrave's role in the team was specifically related to quality control. His potential bias in this context would be related to his involvement in earlier evaluations and to his personal experience of managing disaster relief.

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