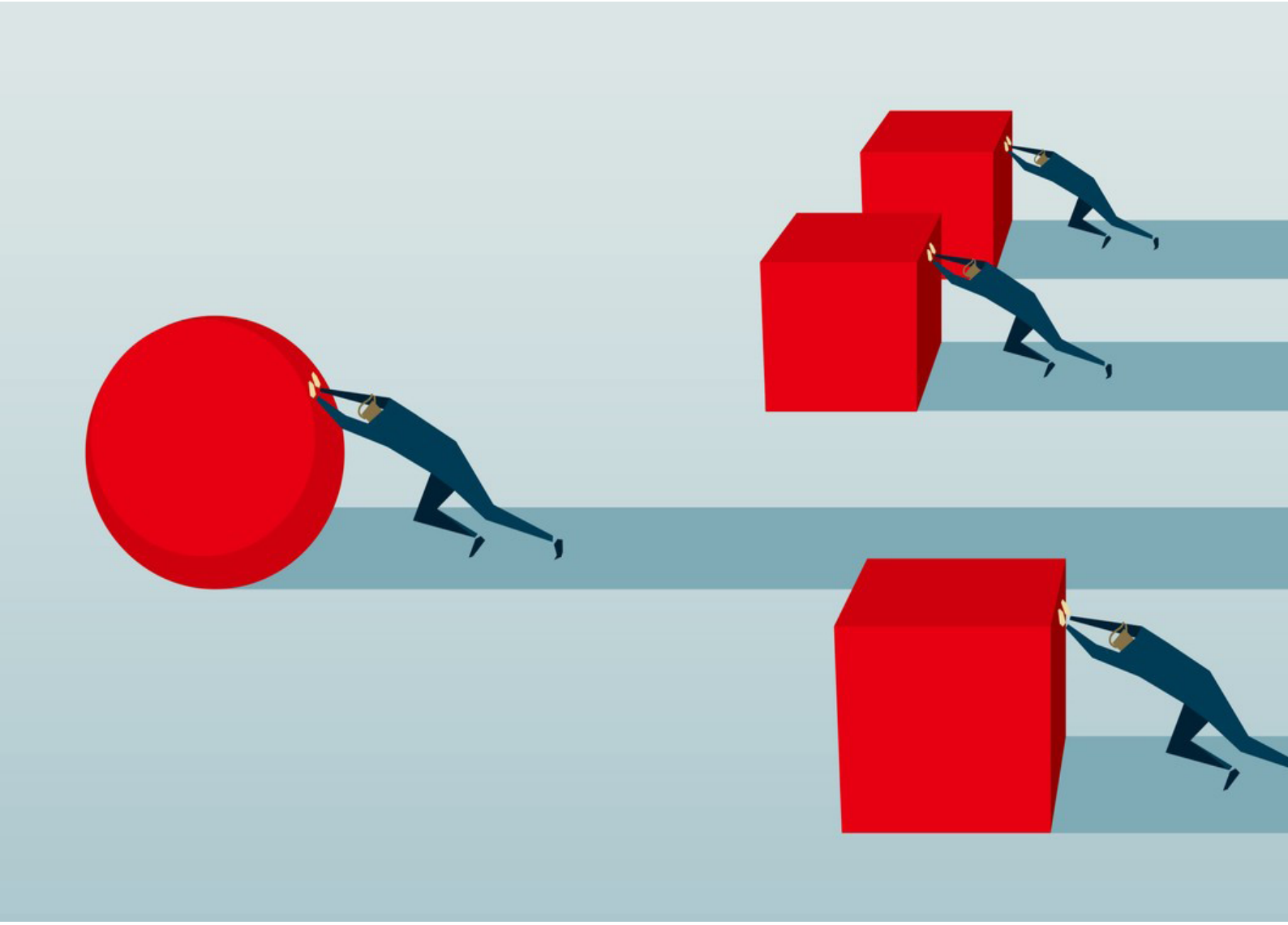
Fleet Forum

ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

INSEAD Humanitarian Research Group

Innovative Strategies for the Road Ahead

HUMANITARIAN ORGANISATIONS' STRUGGLE WITH FLEET MANAGEMENT



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Our objective is to disseminate information that is accurate and up-to-date at the time of publication. If errors are brought to our attention, we will do our best to correct them.

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EXECUTIVE SUMMARY

In 2021 Fleet Forum, supported by the Bureau for Humanitarian Assistance (BHA) of USAID, investigated the characteristics and causes of the most common inefficiencies in fleet management in humanitarian organisations. The objective of the study is to uncover opportunities to improve service performance and achieve a better use of resources. Besiou and Van Wassenhove (2020) state that "Since 2011, appeals for funding by humanitarian organisations (HOs) have steadily increased, and more than 55% of requirements are unmet" (p. 135). Another report by HELP Logistics AG et al. (2018) estimated the humanitarian funding gap to be around USD 10 billion. Therefore, cost efficiency must become a priority in order to make the most of shrinking budgets.

The cost burden of operating a vehicle fleet cannot be ignored. A study by Pedraza-Martinez and Van Wassenhove (2013) states that "the total cost of capital of the international humanitarian fleet is estimated at 1.6 billion USD" and 8 years later, we can only assume this total to have grown in step with the funding in the sector. In an earlier study, Pedraza-Martinez et al. (2011) confirmed that "the asset-related and operating cost of IHO 4x4 light vehicle fleets is above USD 1 billion per year and its size is substantial; between 70,000 and 80,000 vehicles and that "The current centralized and hybrid fleet model designs allow a misalignment of incentives at different levels. As a consequence, it can be the case that more than 50% of the total cost of the fleet is not optimized". Considering the scale of the cost incurred, humanitarian organisations should seize every opportunity to reduce inefficiencies in fleet management and capitalise on the gains.

The project report has been prepared by Fleet Forum in partnership with two research institutions, ETH Zurich's HumOSCM Lab, and INSEAD's Humanitarian Research Group (HRG), and supported by key informants from the sector. Drawing on the existing research, best practices, and years of experience working with humanitarian fleet managers, it presents an assessment of the most common inefficiencies which continue to exist and negatively impact fleet performance. The root causes of these inefficiencies, systemic barriers to change, possible solutions, and learnings from successful change are summarized, concluding with recommendations for next steps.

Most common inefficiencies in humanitarian fleet management

The most frequently identified inefficiencies in the fleet operations of aid and development organisations that drive up the cost of fleet operations include:

1. Lack of vehicle disposal planning to optimise residual value.
2. Total Cost of Ownership (TCO) driven up by continuing to use vehicles that are over-aged.
3. Larger fleet sizes than required to satisfy operational transport requirements.
4. Poor data collection and analysis results in a lack of visibility of fleet performance.
5. Duplication of efforts and resources due to lack of capacity and knowledge sharing

EXECUTIVE SUMMARY

Root causes of the inefficiencies and systemic barriers to change

The following root causes of the listed inefficiencies and systemic barriers to change are identified:

1. Strategic importance of fleet management is not recognised
2. Inadequate attention given to change management
3. Staff with low levels of expertise in fleet management
4. The annual budget cycle and fund-driven vehicle procurement
5. Decentralisation without providing strong leadership and coordination from the centre

Addressing inefficiencies. Learning from successful change

Improvements in fleet performance are ongoing and opportunities to exist to learn from the cases of successful change. There are a number of individual measures which can be taken to address the inefficiencies:

1. Tie fleet management to the strategic objectives of the organisation
2. Inter-organisational collaboration on fleet management
3. Apply sound business management principles
4. Establish change management programmes and engage relentlessly
5. Fully understand donor funding mechanisms and remove perverse incentives to spend un spent budgets at the end of the budget cycle (also known as 'Christmas shopping').

The report itself has been formulated as an instrument of change and should be used for communications and training purposes. May its findings contribute to the development of organisations of all sizes and missions towards more effective, safe, environmentally sustainable, and efficient fleet management.

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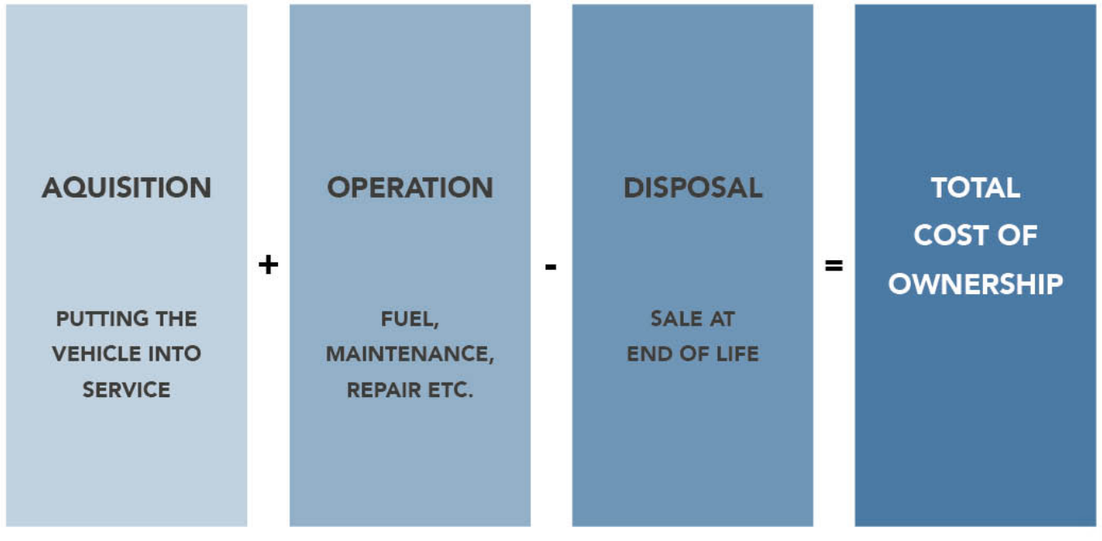
1. PERSISTENT INEFFICIENCIES IN HUMANITARIAN FLEET MANAGEMENT

Persistent inefficiencies drive up the cost of vehicle fleet operations in many humanitarian organisations. At the same time, aid and development organisations are competing for donor funding and must strive to become more efficient to compete successfully for scarce resources. In this paper Fleet Forum, working with key informants from the sector, as well as two research institutions; ETH Zurich's HumOSCM Lab, and INSEAD's Humanitarian Research Group (HRG), identifies some of the most significant and commonly observed inefficiencies in humanitarian fleet management. The root causes for these inefficiencies are examined and analysed, actions that can be taken by organisations to address these inefficiencies are then proposed. In conclusion, a way forward to implement the required corrective actions are presented.

Vehicles represent a significant proportion of the value of assets on the books of operational aid and development organisations, and the cost of operating these vehicles has a significant impact on the reach of humanitarian budgets. The study by Pedraza-Martinez and Van Wassenhove (2013) states that "the total cost of capital of the international humanitarian fleet is estimated at 1.6 billion USD." The Total Cost of Ownership (TCO) of a vehicle comprises the cost of acquisition and putting the vehicle into service, the direct and indirect operating costs of that vehicle during its lifetime, less any revenue generated when the vehicle is disposed at the end of its lifetime. The objective for a well-managed fleet is reduce the TCO to an optimal level.



The technical solutions and best practices for effective and efficient fleet management are evident, particularly in the commercial sector, and are validated by management research. Best performance can be achieved, for example, by applying the Professional Fleet Management Model© (figure 1). This involves a continuous process of data capture monitoring of key performance indicators (KPI) in each of the four quadrants of the model. The analyses of outputs from each individual quadrant then serve as inputs to further planning and fine-tuning of the individual case. Professional Fleet Management ultimately integrates vehicles, people, data, processes, and business systems to create the backbone for effective vehicle fleet management. Professional Fleet Management is an adaptive approach, designed to optimize the effectiveness of the fleet in achieving the organisation's strategic mandate and operational objectives.

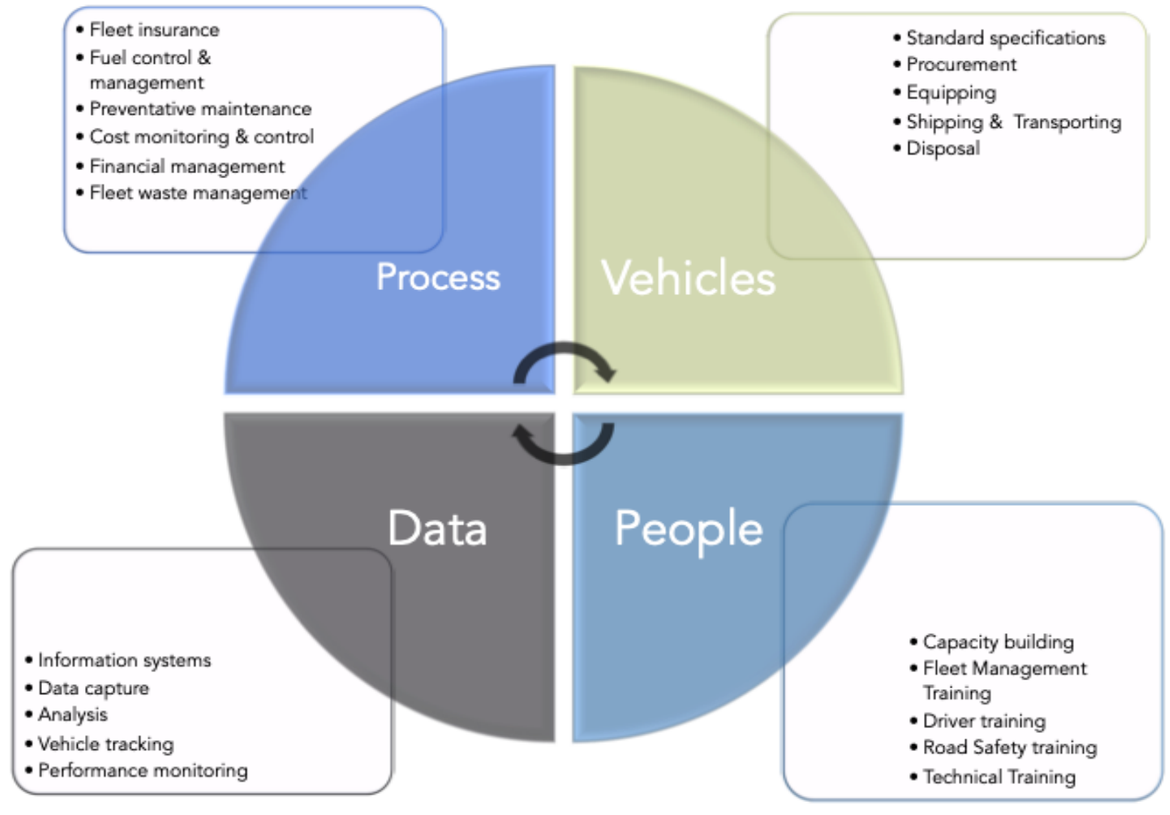


Figure 1: Professional Fleet Management Model© Source: Fleet Forum

However, evidence suggests that few aid and development organisations apply the model to achieve the provision of efficient, sustainable, and safe transport capacity to their projects, programmes, and country offices.

Five of the most frequently identified inefficiencies in the fleet operations of aid and development organisations that drive up the cost of fleet operations include:

1. Lack of vehicle disposal planning to optimise residual value.
2. Total Cost of Ownership (TCO) driven up by continuing to use vehicles that are over-aged.
3. Larger fleet sizes than required to satisfy operational transport requirements.
4. Poor data collection and analysis results in a lack of visibility of fleet performance.
5. Duplication of efforts and resources due to lack of capacity and knowledge sharing

In spite of these commonly identified inefficiencies, there are numerous examples of good practice within the sector. These examples demonstrate that good fleet management practice can be implemented and efficiencies gained within the sector. The Costa Rica Red Cross (see box next page) has been successful in applying the Professional Fleet Management across their entire fleet. Larger organisations have mastered individual phases of the Professional Fleet Management model, like the UNHCR's excellence in sourcing and disposal (the "Vehicles" quadrant of the model), or the ICRC's rigorous data collection and analysis to inform their fleet management decisions (the "Data" quadrant of the model). The successful results achieved by individual organisations are, however, not as widespread as the scale of opportunities would justify.

Through best practice sharing and collaboration (facilitated, for example, through Fleet Forum), there is opportunity for significant improvement in the sector.

Improvement begins by understanding the nature and cause of the inefficiencies. In the following sections, each of the most commonly observed inefficiencies will be described, together with identified root causes and systemic barriers, closing with a review of what can be learned from successful change. It will become apparent that many of the sub-optimal phenomena are interrelated and tend to share root causes.

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1.1 LACK OF SYSTEMATIC VEHICLE DISPOSAL TO OPTIMISE RESIDUAL VALUE

Much attention is given during the procurement process to ensure the lowest price is paid for a requested item. Where a small number of percentage points of the price can be realised through effective procurement, scant attention is paid to realising potential residual value at the end of a vehicle lifetime.

Developing Sustainable Fleet Management at the Costa Rican Red Cross

With 705 fleet assets, the Costa Rican Red Cross focuses on disaster preparedness, community health and environmental protection. It is the main ambulance service provider in the country.

Recognizing Professional Fleet Management to be a key enabler of better service delivery, the organisation completed a 4-year program which systematically addressed all quadrants of the Professional Fleet Management Model: Data, Process, Vehicles, and People.

The business case for their STRATEGY 2030 program established clear goals for safety, cost savings, and environmental sustainability, together with estimated funding required, and the benefits to be derived.

The results were a decrease in fuel consumption by 19%, reductions in carbon emissions by 1402 tons, significant decreases in the total cost of ownership (acquisition, operating and disposal expenditures), a lowering of the number and severity of accidents, including the elimination of driver fatalities in that four-year period. The Costa Rican Red Cross re-invested the savings in fuel consumption to cover its investment in new fleet management software.

International Federation of Red Cross and Red Crescent Societies (2021). Developing sustainable fleet management: Experiences from the Costa Rican Red Cross. Internal Report.

Considerable opportunity exists in the sector to increase revenue from the effective disposal and resale of vehicles. This inefficiency is closely related to the others listed here. Organisations which keep excessively sized fleets (see 1.3) or vehicles which are used beyond their specified age guidelines (see 1.2), will logically not dispose of these early enough to benefit from the maximum residual value. Organisations should also take advantage of market mechanisms which increase the residual, following the example of UNHCR which sells its redundant vehicles through professional auctions instead of simply writing-off or donating vehicles to partners. Their systematic efforts to sell-off end of life vehicles routinely recover as much as 50% of the original purchase price of a vehicle at the end of life. These disposal revenues grew from US$ 1.2 million in 2012 to US$ 10 million in 2014 (Kunz & Van Wassenhove, 2015).

The challenges to optimal vehicle replacement at ICRC (see box next page) demonstrate the opportunities for improvements. The early study of the ICRC showed how the organisation struggled with replacement policies that were not followed. The research estimated that savings of 8.7% were possible (Pedraza-Martinez & Van Wassenhove, 2013) through more planned vehicle disposal.

ICRC's Vehicle Replacement Policy

The current standard replacement policy at ICRC is to replace vehicles after 5 years, or after 150.000 km, whichever comes first.

The optimization model developed in the study and based on data before 2008 suggests that ICRC should replace its vehicles after 100.000 km. The policy is robust to changes in purchasing costs, maintenance cost, and vehicle salvage value.

Commercial recommendations for vehicle replacement do not apply due to the different environment of missions in the humanitarian sector. To make the new replacement rule operational, the authors of the study call for new rules to align incentives between various ICRC decision-making levels.

On average, by adjusting their replacement policy, the ICRC would save 8.7% of operating costs. "To put this in perspective, note that the total cost of capital of the international humanitarian fleet is estimated at 1.6 billion US$ and that ICRC is considered to be the one of the best practice benchmarks of the sector".

Pedraza-Martinez, A. J., & Van Wassenhove, L. N. (2013). Vehicle replacement in the International Committee of the Red Cross. Production and Operations Management, 22(2), 365-376.

Root causes:
Due to complex local regulations, tax and duty liabilities, potential corruption and undue influence, the selling of end-of-life vehicles is perceived as a complex and risk ridden activity, which should be avoided due to these perceptions. Furthermore, in many agencies, any revenue generated from asset disposals is booked back to HQ rather than the project or programme that funded the vehicle acquisition. This is a disincentive for country organisations to dispose of their vehicles fund the acquisition of new vehicles. In addition, there is a common misconception that fully depreciated vehicles are low cost, a further incentive to avoid disposal.

1.2 TOTAL COST OF OWNERSHIP (TCO) DRIVEN UP BY CONTINUING TO USE VEHICLES THAT ARE OVER-AGED

The total cost of ownership (TCO) over the entire lifecycle of the vehicle is a critical performance indicator that should be managed continuously. The TCO of a fleet can be optimized by monitoring its performance and actively managing the costs of acquisition, maintenance, operations and disposal.

After acquisition (and disposal) the most significant component of the TCO is related to the day to day operation use (and in some cases, misuse) of the vehicle; its drivers, fuel, maintenance and repair and other activities. These costs can be substantial, as a study by Pedraza-Martinez et al. (2011) confirms: *"centralized and hybrid fleet model designs allow a misalignment of incentives at different levels.* **As a consequence, it can be the case that more than 50% of the total cost of the fleet is not optimized".**

A large-scale data collection exercise conducted by Fleet Forum found that the annual TCO of an unmanaged vehicle is $15,000, while that of a professionally-managed vehicle drops to $10,400. In the well-managed fleet, the vehicle is acquired at the lowest cost and the residual value optimised through planned disposal – minimising the acquisition or capital cost: Acquisition cost of a 4x4 vehicle is $35,000 and its residual value $10,000, the net acquisition cost would be calculated at $25,000. In an unmanaged fleet the acquisition cost could be $40,000 with no residual value through disposal, in which case the net acquisition cost is $40,000.

Furthermore, operating costs increase over time as a function of the number of kilometres driven. The rate of increase in costs rises dramatically after a certain threshold – on average around 5-6 years and 150-200,000 kms. Therefore, a vehicle disposed while residual value is high and operating costs are low has a TCO of $10,500 compared with the annual TCO of $15,000 in the unmanaged fleet where older vehicles are kept in service.

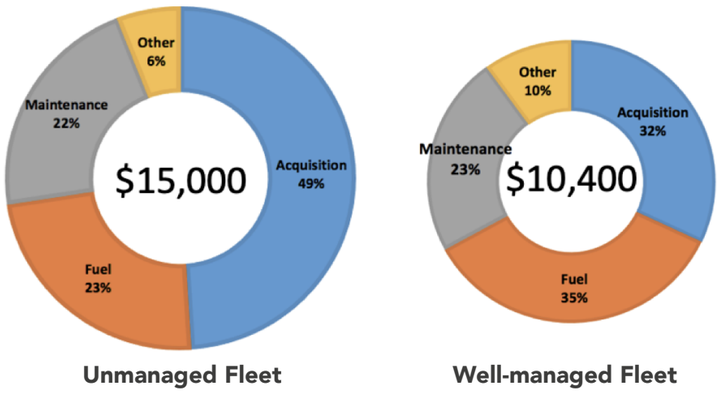


Figure 2: Total Cost estimates of Fleets which are unmanaged compared to those which are professionally managed.

Source: Fleet Forum

The TCO calculation model reveals that managing operating costs is just as important as managing the acquisition cost. The striking fact is that even the operating costs of a well-managed fleet remain substantial, up to three times that of acquisition, and therefore deserve management attention.

Humanitarian operations prioritize the continuous availability of vehicles, and do not necessarily track the total costs of individual fleet decisions, to monitor cost and provide TCO insight. The former Global Fleet Manager of one of the largest INGOs observed that *"People always have the idea that the fleet costs nothing"*. For example, in the field, small repairs on older vehicles are common. The analysis by the Global Fleet Manager of another revealed, for example, that *"with the money spent on old 5 vehicles, we could have bought 2 new ones… Running costs of a brand-new Toyota Landcruiser are around USD 0.11 per km. An 8-year-old [vehicle] costs double and sometimes even up to USD 0.44 per km."*

Root causes:

Most organisations do not require and/or do not provide the necessary tools and training for staff to data capture that allows effective fleet cost and performance monitoring. In many cases, even when operating substantial vehicle fleets, country offices do not always have a dedicated fleet manager, resulting in a lack of responsibility and accountability for fleet performance. Despite operating in a sector in which data capture, performance monitoring and reporting is deeply embedded, there is minimal understanding of the value of data capture and analysis to maximise fleet efficiency.

Fleet expenses tend to be allocated into a variety of administrative buckets, often mixed in with other account codes (vehicle and generator fuel costs not reported or recorded separately, for example). The resulting lack of transparency and thereby accountability encourages makes it difficult for decision-makers to recognise their true costs, and the corresponding potential for improvement.

1.3 LARGER FLEET SIZES THAN REQUIRED TO SATISFY OPERATIONAL TRANSPORT REQUIREMENTS

Many organisations have fleets that are larger than is justified by the actual program transport needs. When Kunz et al. (2015) studied the UNHCR's Internal Leasing Program (IPL), they realised that *"The first indicator is fleet size. In 2011, the fleet management review estimated that UNHCR had a fleet of about 6500 vehicles, which was "oversized compared with operational needs. Although nobody knew the exact number of vehicles in the field. One of the objectives of the 2014-2018 ILP strategy is to ensure that the fleet is right-sized…The ILP achieved this objective,* ***by decreasing the fleet from 4913 to 4389 vehicles, a decrease of 11%, between April 2013 and October 2015".***

The study by Pedraza-Martinez and Van Wassenhove (2013) of the ICRC's vehicle replacement policy measured excessive fleet size using data on the average vehicle utilization over time. They found that usage (km driven per month) declined as the vehicle aged. At the same time, they observed no corresponding reduction in the quality of humanitarian services delivered, which suggests that not all the vehicles in the fleet were needed. The 2017 Proof of Concept conducted by several UN organisations including UNICEF found that *"By optimizing the utilization of one's fleet, the number of vehicles can be* ***reduced by a minimum of 10%****. More proactive management could yield greater reduction"* (United Nations Children's Fund, 2017).

Root causes:
Vehicle acquisition is often driven by the availability of funds rather than transport requirements. Fleet sizing is not analysed in a systematic way and fleet managers are not adequately involved in the planning process. An over-aged asset is an easily justifiable way of using funds that need to be spent to fulfil donor regulations. Many organisations have an emergency mindset in which vehicles are kept on standby, even when capacity is not required, for example responding to sudden onset crises.

Systematic transport needs assessments are not conducted by program managers, who also tend to exaggerate their requirements in the belief that a bigger fleet will ensure vehicle availability or by fears that only partial funding will be available.

An additional driver for excessive fleet sizes is the practice of donors to earmark funds: vehicles are often assigned to specific funded programs and not shared for other purposes, even by the same organisation in the same country.

1.4 POOR DATA COLLECTION AND ANALYSIS RESULTS IN A LACK OF VISIBILITY OF FLEET PERFORMANCE

Professional fleet management depends on the insights gained from complete, accurate and timely reporting on the performance of its vehicles. Immediately after its governing board decided to implement a fleet development project, the first step taken by Costa Rican Red Cross in 2018 was to establish a suite of KPIs designed to measure and manage performance. They explained that *"The main objective was to optimize the use of all fleet assets across the country using Key Performance Indicators (KPI) for better decision-making"* (International Federation of Red Cross and Red Crescent Societies, 2021). For MSI Reproductive Choices, one of the motivations for launching its Global Fleet Management project was its lack of performance visibility (see figure 3 for sample KPIs).

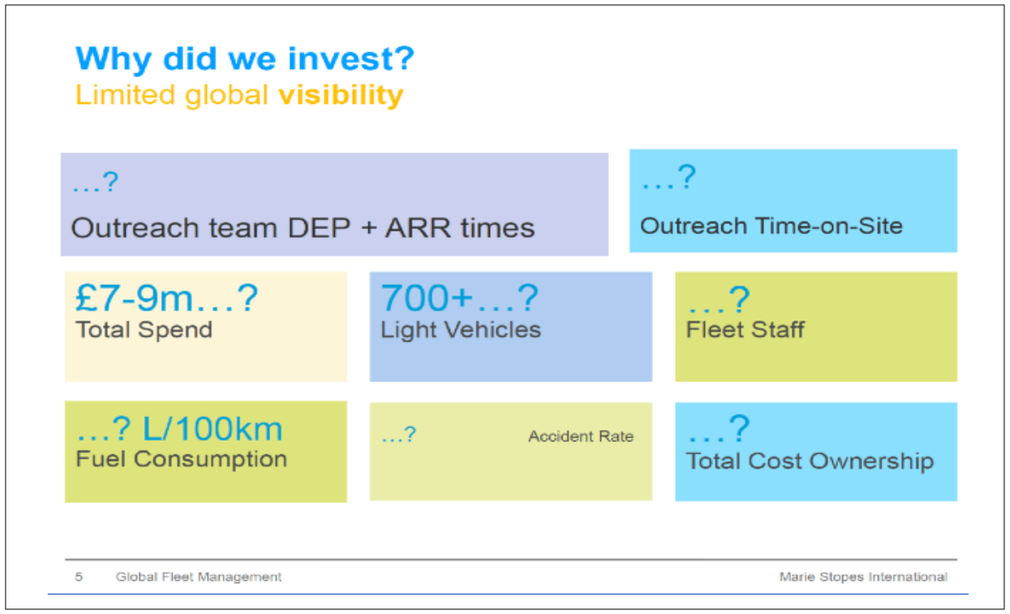


Figure 3: Sample of missing KPIs at MSI Reproductive Choices prior to the implementation of Global Fleet Management

In most agencies, however, these data are fragmented across country organisations and not systematically collected or reported. Should IT systems exist to capture the data, they are not always integrated to report even at the country level, which in turn makes a single, shared view of what is happening hard to construct. Without visibility of performance gaps (for example: utilisation, availability), combined with the total costs incurred (see section 1.2), the opportunities for improvement and the case for change are not visible. The costs of repeatedly repairing overaged vehicles (see section 1.1) would become apparent and draw attention. In the words of the former Head of Logistics at a large NGO, without illustrative data which uncover *"big scandals or fleet inefficiencies"*, it is hard to raise the awareness of its importance.

Root Causes:
Following a trend of decentralization in the sector, country organisations tend to operate independently and do not recognize the importance of collecting KPIs for their local fleet operation to share with headquarters or any centralized fleet management function.
Additionally, the collection of centralized data can also provoke resistance to the perceived threat of control or exposing inefficiencies.

With few resources dedicated to the collection of fleet management performance data, there is often no interest in their reports. In cases where data is collected and sent to 'HQ' the lack of feedback is a significant disincentive to submitting reports. Typical experiences include a fleet manager from an international organisation, who was based in a country office and sent monthly fleet performance reports to HQ. It took a year before any feedback was received. In another NGO, the fleet management report was sent monthly from HQ to the regional office without receiving any confirmation or feedback on it. This indifference is not surprising if the contribution of fleet management to the success of the organisation has not been made clear and advocated by decision-makers.

1.5 DUPLICATION OF EFFORTS AND RESOURCES DUE TO LACK OF CAPACITY AND KNOWLEDGE SHARING

In the sector there are several initiatives that demonstrate improvement in fleet management performance through implementing good practice. However, the outcomes are often not shared with other organisations or are not followed up within the same organisations. For example, the Proof of Concept initiated for fleet sharing between UNDP, UNICEF and UNFPA demonstrated that systematic journey planning and car-pooling reduced the number of vehicle and kilometres travelled without negatively impacting programme delivery required. Yet, the concept was not expanded outside of the pilot countries and organisations (see section 2.2).

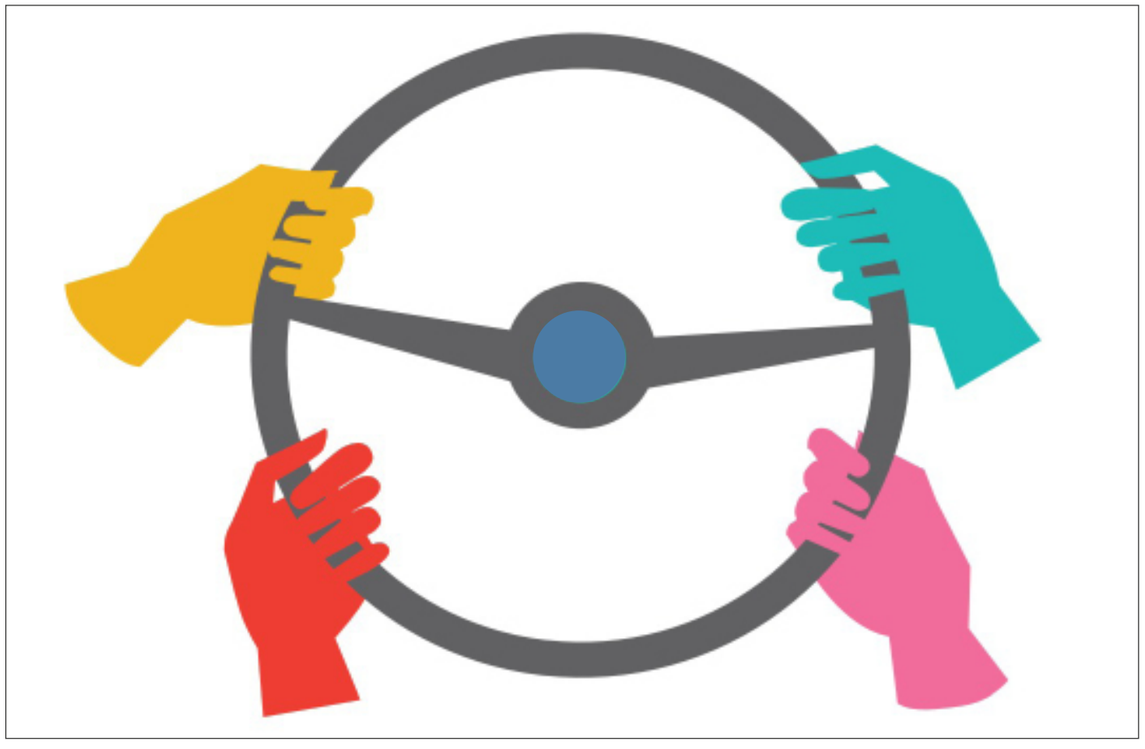
There exists a natural tendency for organisations to maintain a proprietary fleet as if it were another operational in-house function. This leads to both oversized fleets and under-utilized vehicles (see section 1.3). In 2019, the Réseau Logistique Humanitaire acknowledged in their report "Strength in Numbers" that there is an enormous potential for sharing of resources and mentioned sharing of vehicles and fleet management as one of the recommendations (Lacourt & Radosta, 2019). To date, no steps have been taken in this direction.

This lack of best practice sharing is also observed with unsuccessful projects. Many organisations tend to make similar mistakes when implementing elements of the professional fleet management model. A striking example is the number of failed fleet management systems (FMS) implementations where the level of adoption in country office is low and the FMS fails to effectively contribute to the monitoring of fleet management performance.

> *"Pooling logistics resources must go beyond the supply chain and should consider in particular the sharing of infrastructure, fleet (vehicles / generators), technical resources and skills. These aspects should not be overlooked especially as the standardisation of management policies, required for an effective pooling, would greatly benefit the humanitarian community."*
>
> Taken from: *"Strength by Numbers", Réseau Logistique Humanitaire*

Root Causes:
In many organisations there is no culture of continuous improvement. Initiatives are driven by individuals rather than by organisations. When these individuals leave, the institutional knowledge is not retained. Organisations in the sector tend to have a misplaced belief that their operating environment and their activities are unique and that therefore best practices do not apply to them. Specifically, in relation to vehicle sharing, donors inadvertently encourage inefficient vehicle planning processes through their lack of operational control mechanisms and the criteria which are defined for program success (see section 2.4 for details). Fund-driven vehicle procurement undermines systematic fleet planning, as programs routinely enter a line for their own transport needs.

This results in vehicles allocated to single events or programs, which will rarely maximize the return on asset, and not generally make the vehicle accessible to others.



2. ROOT CAUSES OF INEFFICIENCIES AND SYSTEMIC BARRIERS TO CHANGE

The root causes of the listed inefficiencies are described in more detail in this section. In addition to these individual factors, systemic barriers to change are identified and discussed.

2.1 THE STRATEGIC IMPORTANCE OF FLEET MANAGEMENT IS NOT RECOGNIZED

There is a widespread perception that fleet management is simply the work of buying, maintaining, and dispatching vehicles to the field. Fleet management is not treated as a strategic priority by senior management and therefore not recognised as an enabler of the services that programs need to provide.

To improve fleet efficiency, the organisational changes and process improvements which would have to be made are delegated down to the country organisations and their overburdened operations managers, many of whom report to different functional units, each with their own set of priorities.

> *"Fleet is normally left to a lower-ranked staff member who has 15 other tasks which are higher-ranked than fleet, so it is not managed."*
>
> Former Global Fleet Manager, Large NGO

The priority of fleet becomes even lower as budgets shrink and emergency work becomes more stressful. A consultant to a small NGO commented that *"Fleet is managed by generalists who have many more priorities and fleet will always lose when staff are under pressure".*

2.2 INADEQUATE ATTENTION GIVEN TO CHANGE MANAGEMENT

Elevating the fleet function to a strategic priority within the organisation will require concerted change management, which is not widely effectively practiced in humanitarian organisations. Change management is a long, drawn-out process which requires continuous monitoring and relentless communication from executive leadership. Without this support from senior management, the adoption of even the most promising improvements tend to fail.

Research and practice show that organisations do not change voluntarily, even when there is a compelling reason to do so. This fact is illustrated by the 2017 case of a consortium of UN organisations (UNFPA, UNDP, UNICEF), which failed to roll-out a successful Proof of Concept for sharing their fleets. The solution involved automatic booking, billing, and tracking of vehicles to ensure the most effective use of these assets. Presented with the impressive outcome of the pilot, senior management decided that "the results should speak for themselves" and chose not to make the solution mandatory for their country organisations. The consequence of leadership's non-committal attitude was that individual country organisations balked at the added administrative effort and did not complete the local adaptations (which included replacing their local tracking software and changing the individual logos on their vehicles), required to implement the solution. UNICEF, one of the organisations which worked on the PoC, estimated that an adoption of the vehicle sharing system would have cut costs by as much as $4million annually (United Nations Children's Fund, 2017). The potential efficiencies were, however, not realized and the countries returned to business as usual.

2.3 STAFF WITH LOW LEVELS OF EXPERTISE IN FLEET MANAGEMENT

As long as fleet management is not perceived as a strategic enabler of programs (see section 2.1), staff who are recruited for it will fulfil this low expectation. Professional fleet managers need a broad range of analytical and organisational skills to manage all four quadrants in Figure 1. The following job description (box) is taken from an advertisement in the corporate sector. It lists the responsibilities of a professional fleet manager and illustrates the managerial and analytical requirements of the fleet manager's role in an environment which prioritizes efficiency.

What does a fleet manager do?

Day-to-day responsibilities might include:

- Preparing budgets and reports concerning the operation costs of the fleet.
- Analysing fleet data using computer software.
- Keeping employees informed about their fleet programmes and progress.
- Purchasing or leasing the appropriate vehicles and necessary equipment.
- Controlling the maintenance and repair of vehicles in the fleet.
- Organising replacements and disposal of damaged or old vehicles.
- Arranging appropriate insurance for vehicles and employees.
- Scheduling the operations of the fleet.
- Ensuring that vehicles are kept securely when not being used.
- Managing contracts with clients.

Source: https://blog.inautomotive.com/fleet-manager-job-description/

In practice, however, these are not the profiles which are typically hired by humanitarian agencies. If fleet management is reduced to a technical task of dealing with mechanical things instead of a management job, people who are considered fit to operate and maintain vehicles are made responsible for the fleet. As a consequence, staff will, for example, lack the written and verbal communication skills needed to pass information to internal and external stakeholders, report progress to superiors, as well as prepare documents like budgets.

They will lack the interpersonal skills which are important for managing employees. They won't possess the computer literacy to make best use of databases and software. Fleet managers also need to be able to interpret the data they gather and use it to make better decisions. They should be equipped with negotiating skills to deal with both suppliers and internal stakeholders and align conflicting interests. Without these skills, staff are left to make *ad-hoc* decisions based on any variety of assumptions.

The widespread skill gaps of fleet managers are partly attributable to their tendency to learn on-the-job and do not allow to build the capacity needed to make fleet management a strategic function. Fleet staff are often "homegrown," starting in an entry position and working their way up the organisation, receiving limited (if any) managerial or technical training. These developmental paths create leadership styles which are different from corporate cultures, which do not question the priority of efficiency. A culture of continuous improvement is rarely observed in humanitarian organisations which do not routinely dedicate time to after-action reviews and learning. Staff rotation further reduces the ability to learn since this requires access to the memory of experience. Without professional managerial systems that preserve valuable know-how (know-who, know-why), it will be lost to turnover.

> *"The lack of skilled staff leads to the lack of visibility of fleet [and has] an impact on the cost side…because the guy is not skilled in fleet management and he hasn't got a framework to measure something against. So he is skilled in project management or he is an administrator. He knows his key performance area and how to get a great scoring in that area. And that is where he will try to solve it, not in an effective and efficient way."*
>
> *- Former Global Fleet Manager, Large NGO*

Last, but not least, as the above citation implies (and any visit to a field operation will confirm), the typical fleet manager is literally *"the guy"*. There is little diversity in the fleet management function. This is an opportunity which should not be overlooked since diversity is proven to improve productivity and innovation in teams.

Fleet Forum
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2.4 THE ANNUAL BUDGET CYCLE AND FUND-DRIVEN VEHICLE PROCUREMENT

Fleet management should be integrated into the design of a program from the outset to ensure the best outcome. Yet, fleet and transport often remain an afterthought in program planning. It is an unfortunate irony that donors themselves reduce the optimal space for fleet management. When financial decisions are planned once a year based upon uncertain donor budgets, longer-term (5 years and longer) and larger investments, like those required for fleet planning, are not possible. In the words of the former Global Fleet Manager at a large NGO: "*You cannot determine that so much money must go towards fleet*". The purchase of individual vehicles for one-off programs does not support the optimal right-sizing of the fleet for the organisation's operational needs. The allocation of program budget to the procurement of individual vehicles also reduces incentives to share the asset, which is central to efficient use.

A secondary effect of the shorter funding cycle is the perverse incentive it creates to spend money only to burn remaining funds at the end of a budget cycle – usually end of year (colloquially known as "Christmas shopping"). This sub-optimises other objectives like fleet size, procurement cost and vehicle standardisation. The data in Figure 4 were compiled by the former procurement director of a UN organisation. They illustrate how the rush to spend the remainder of a budget before it expires creates a spike in vehicles purchased at the end of each calendar year (the "Hockey-stick effect"). This suggests that purchasing quantities were not determined by program transport requirements or optimal fleet sizing, but by the availability of unspent funds.

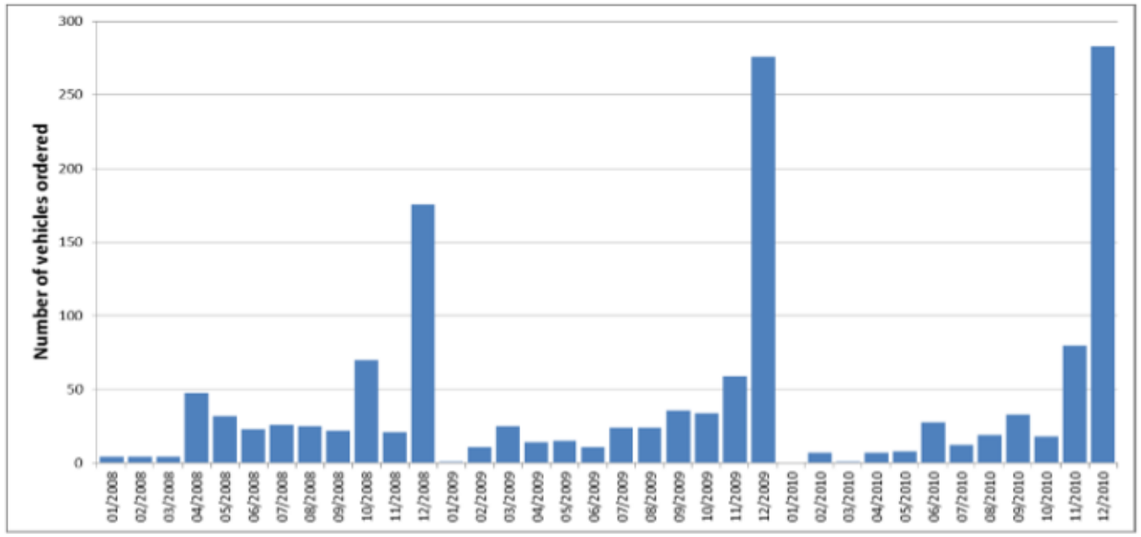


Figure 4: Numbers of vehicles ordered at a UN organisation with an Internal Leasing Program or ILP (Kunz et al., 2015, p. 11)

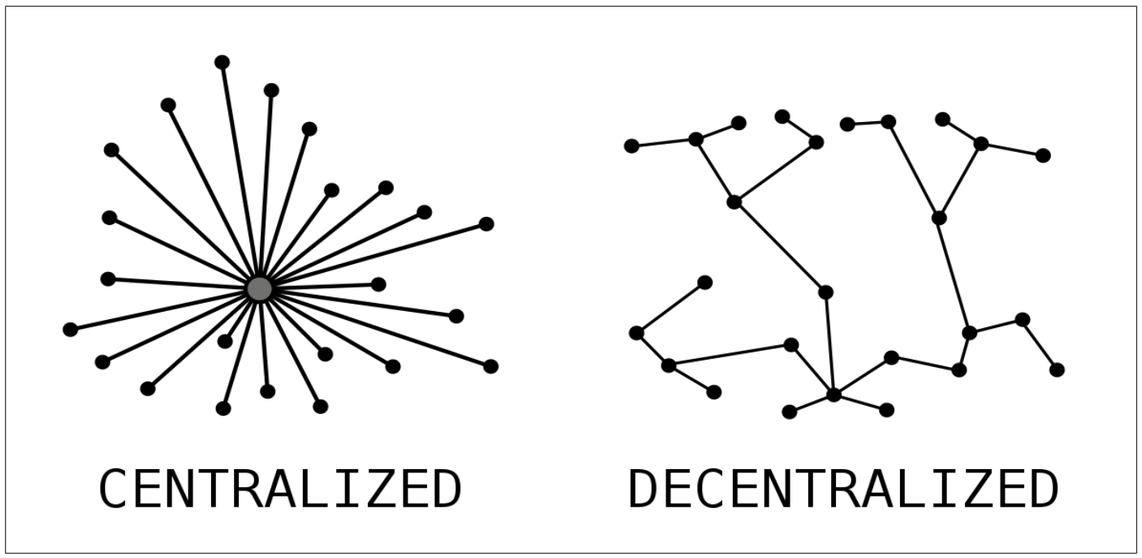
If individual staff members could choose to behave in a more efficient manner and resist these counterproductive incentives, there exists no mechanism through which the programme or organisation could benefit from those savings. The failure to re-allocate cost savings thus creates two additional perverse incentives: the immediate savings cannot be re-allocated to other needs and operating at lower cost today reduces the amount of funding available in the next budget cycles. The efficient manager effectively creates a financial penalty for future programmes.

It is important to acknowledge that these decision-makers are behaving in rational way, in response to the system in which they work. In the words of Nobel Prize laureate Herbert Simon, they are "boundedly rational" (Simon, 1957), meaning they are doing what is in their own interest over the short-term, and for the segment of the process which they control. As 'Christmas shopping' is boundedly rational behaviour, it cannot be eliminated without changing the perverse incentives which produce it.

2.5 DECENTRALISATION

The sector has seen a trend to centralise fleet management. However, this centralisation has been focused on gaining efficiencies through economies of scale through functions including procurement, insurance, and disposal management. This centralisation has not been pushed down to country or operational level and the required support to develop more robust fleet management capacity at local level has not been developed. In general, it is recommended to decentralise fleet management into the countries *but provide strong leadership and coordination from the centre.* Decentralisation should not turn into abandonment. On the contrary, in an effective decentralised set up the HQ function should continue to guide and support the country operations to build local fleet management capacity.

Without coordination and support, decentralisation is merely a handoff of responsibility, and it is less likely that fleet management will function effectively. At a technical level, uncoordinated decentralisation results in poorly integrated information technology. The operative data which are collected in country organisations may not be relayed back to HQ in a form which supports analysis, and evidence-based decision-making. At a managerial level, since centrally-defined fleet management objectives must be adopted and executed elsewhere, it can undermine authority over *"the little kingdoms"* of country organisations. HQ will struggle to enforce standard operating procedures (SOPs), and improvement measures may not be implemented in the field.



3. ADDRESSING INEFFICIENCIES. LEARNING FROM SUCCESSFUL CHANGE

As previously mentioned, improvements in fleet performance are ongoing and opportunities to exist to learn from the cases of successful change. There are a number of individual measures which can be taken to address the inefficiencies described in this report.

3.1 TIE FLEET MANAGEMENT TO THE STRATEGIC OBJECTIVES OF THE ORGANISATION

Experience shows that within the aid and development sector, arguing for cost reductions or improved efficiency may not be compelling enough to drive the necessary changes. Rather, evidence from successful initiatives indicates that the fleet function was positioned as an enabler of the organisational strategy and tied it to the most important organisational objectives. The key link is to tie fleet management to the effectiveness of programmes.

With effectiveness as the goal, improvements in safety and environmental performance follow. Cost-efficiency is an outcome of these improvements.

To achieve increased effectiveness, management must commit to professional fleet management by actively supporting the improvement roadmaps, declaring the changes to be obligatory, tracking progress, and relentlessly communicating the vision.

For example, MSI recognized that fleet management would improve the fulfilment of the outreach schedules and set precise operational objectives to increase outreach on-time arrival and team time onsite to a target average of 5 hours a day. The Costa Rican Red Cross launched its successful program after fleet management was included as one of the nine strategic enablers to better support core services and activities. Its Strategic Plan 2017-2020 announced the target of achieving a net zero carbon footprint. Once positioned at this level, the importance of the function acknowledged as equal to others, and becomes the subject of continuous improvement, whether it is to improve programme effectiveness, improve safety, or minimize impact on the environment.

3.2 INTER-ORGANISATIONAL COLLABORATION ON FLEET MANAGEMENT

Oversized fleets are the result when individual programs procure vehicles, and these assets outlive the programmes themselves, but continue to tie up capital and incur maintenance costs. A solution is to create a centralised pool of vehicles accessed by the country or the organisation or to a consortium of organisations and shared as need arises. A successful proof of concept by UN organisations exists. The processes of booking, billing, and tracking is required to support operations with appropriate information technology. Research has also documented initiatives like UNHCR's Internal Leasing Program which centralise procurement, vehicle specifications, and vehicle stock (the "Vehicle" quadrant in figure 1), to be models of efficiency (box).

UNHCR's Internal Leasing Program

Fleet management at UNHCR was highly decentralized, which caused a low level of fleet standardization while generating high costs. Vehicle procurement was driven by the availability of funding, and there were no unified reporting systems on fleet performance and costs in place. These inefficient practices undermined UNHCR's ability to deliver on its mandate, while creating major safety risks, and an overall negative impact on the environment.

UNHCR addressed these inefficiencies by centralizing the procurement and disposal of its vehicles within an Internal Leasing Program (ILP). The Headquarter procures vehicles directly from a supplier, and leases them to field offices in exchange for a monthly rental fee.

The impact of the ILP was evaluated based on the following Key Performance Indicators: fleet size, average fleet age, average procurement cost, and level of fleet standardization. Compared to the baseline measurements made prior to ILP implementation, these KPIs indicated that fleet size had been reduced by 11%. The number of suppliers was reduced from 44 to 25 (43%) while the number of models decreased from 35 to 23 (34%). The average age of the fleet went down 21% from 5.85 years to 4.63 years, the average procurement cost of vehicles was reduced by 21% - which amounted to savings of $5 million annually.

Key success factors of the project included support by senior management, as well as epersistent communication and awareness-raising within the organisation.

Kunz, N., Van Wassenhove, L. N., McConnell, R., & Hov, K. (2015). Centralized vehicle leasing in humanitarian fleet management: The UNHCR case. Journal of Humanitarian Logistics and Supply Chain Management.

3.3 APPLY SOUND BUSINESS MANAGEMENT PRINCIPLES

The elevation of fleet management to a strategic initiative will logically require a change in mindset. Agostinho (2013) states that *"logistics in the humanitarian sector was neglected until recently; as a result, humanitarian organisations are* ***15 years behind private sector companies in their supply chain performance"*** (Agostinho, 2013, p. 207). In the years since this statement was published, the humanitarian sector has succeeded in building capacity with excellent supply chain managers; progress which should encourage us. There remains, however, potential to increase the business acumen in the organisations as a whole. Success stories like the Costa Rica Red Cross, the UNHCR, and MSI were driven by managers who brought an efficiency mindset to their fleet management roles, applying sound business management principles to improve performance. Facilitators like Fleet Forum can support the necessary innovation diffusion and cultural change required.

3.4 CHANGE REQUIRES RELENTLESS ENGAGEMENT

It is generally acknowledged that change requires engagement, and engagement requires relentless presence and communication. The Global Fleet Manager at an UK-based NGO notes that successful change is *"all about communications"* and personally visited multiple countries to motivate and engage them in improvement efforts. He emphasized that *"You cannot have a global fleet manager if they are not going to be in the countries".* This type of communication requires a significant investment of time, persistence, and personal effort. It also strengthens the earlier finding that decentralisation should not lead to abandonment but requires strong support. When listing the main challenges, they faced over their 4-year transformation, the Costa Rican Red Cross emphasized that *"It takes time to deliver a project like this, when developing a roadmap, estimating the investment required and planning a mix of quick-fixes and mid-term projects."*

In one of Fleet Forum member organisations, the value of potential improvement was proven by presenting successful case studies and then showing how these benefits could be reproduced in their own organisations.

The turning point of buy-in was the involvement of non-fleet functions like project and program managers, donor teams, and the finance department. Once these stakeholders recognized how fleet management supported their own particular objectives, fleet was included in the quarterly management meeting agenda, as well as securing a seat at the regular operations meetings. At UNHCR, the turning point was successfully convincing the Controller and the High Commissioner with data calculations which showed the extent of possible savings. The countries also needed to be convinced that internal leasing and disposal programs will translate into newer, safer, and better vehicles. This involved months of discussion to get only the top 20 countries on board.

In some organisations the alignment of fleet objectives is hindered by organisational structures, as a key informant observed: "In one country, fleet reports to finance, in another into administration, in the next into logistics or safety and security." Decentralised organisations generally do not react well to diktat from HQ, hence the message must be crafted to appeal to their self-interests and, ideally, draw upon thorough and robust calculations which establish the business case. Advocacy work must expect that buy-in will not be achieved in the first meetings. Persistence is key.

3.5 THE NEW ROLE OF THE DONOR

Donors have a big role to play in the future of professional fleet management, and they need to mindful of what the responsibilities entail.

As previously described in section 2.4, since structures like the funding-driven procurement inadvertently reduce the optimal space for professional fleet management, donors should support capital investment and accept cost re-allocation. In general, the short-term funding of programs has virtually excluded the possibility of planning and executing long-term programs that involve professional fleet management. As long as successful programs are measured by the fund depletion, i.e. complete spend of the allocated budget, there is little incentive for running efficient programs, which spend less. This could be reversed by allowing more flexible re-allocation of cost savings to other valid needs in the organisation. For example, the freedom to book revenues from the timely resale of vehicles to countries which dispose of them within the specified standard time would contribute much to a better use of limited funding. This reverses the perverse incentive which is currently in place by effectively creating a financial reward for timely disposal.

In addition to these mechanisms, donors should use their influence to insist upon collaboration and asset-sharing in the organisations they fund.

4. THE WAY FORWARD

Based upon the findings of this study, a number of recommendations can be made to improve fleet management in the sector which will result in increased programme effectiveness, improved road safety, reduced environmental footprint, and, as an outcome of these efforts, greater cost efficiency.

4.1 PROFESSIONAL FLEET MANAGEMENT

Every humanitarian organisation with a fleet of vehicles should strive to manage that fleet professionally, according to the known best practices and structure of Professional Fleet Management depicted in figure 1. This begins with establishing the link between fleet performance and the strategic goals. A self-assessment of current performance levels and identification of the most significant gaps are required to determine a baseline from which improvement can be measured and monitored. The design and implementation of solutions will require a roadmap, which will differ from organisation to organisation depending on mission, size, and other factors. Each roadmap will need to be customized.

It is important, however, to recognize that certain principles apply to all business cases, whatever the characteristics of the individual organisation. Every fleet management improvement journey begins with data collection and performance measurement. Executive leadership will need to support change over the long-term with relentless advocacy.

This report has been formulated as an instrument of change and should be used for communications and training purposes in the sector.

4.2 ADAPTIVE CHANGE VS. TECHNICAL SOLUTIONS

As mentioned in the introduction to this study, the technical solutions (such as data capture and analysis, vehicle-pooling, etc.) for professional fleet management are well known. It is the implementation of these to which the sector should now turn its attention, and this will require another type of problem-solving and mindset. Contrasting the technical tasks to the leadership tasks, an article in Harvard Business Review described the work that has to be done in the following way: *"Changes in societies, markets, customers, competition, and technology around the globe are forcing organisations to clarify their values, develop new strategies, and learn new ways of operating. Often the toughest task for leaders in effecting change is mobilizing people throughout the organisation to do adaptive work"* (Heifetz & Laurie, 1997, p. 124).

4.3 THE ROLE OF SENIOR MANAGEMENT

By engaging with senior management, Fleet Forum can facilitate the sensitisation to their critical role in professional fleet management. These include the necessary changes in culture from ad-hoc to data-driven decisions, tirelessly advocating fleet as an enabler of program effectiveness and tied to the strategic priorities of the organisation discussed above. Only after the strategic link has been established by their leaders can functional managers derive operational targets from the strategic goals. Executive support will also be required to capitalize on savings achieved over time, since conventional controlling and booking logic may neutralize the benefits of local success. In order for any change to be sustainable and survive the natural resistance of legacy structures, senior management must continue to support by tracking and publicly recognising progress towards achieving these declared targets.

4.4 THE ROLE OF DONORS WITH CLOSING REMARKS

In view of the boundary conditions that donors create, this report invites donors to engage with Fleet Forum to consider how the system of funding and measurements of success could be redesigned to support professional fleet management and incentivise, rather than penalise, efficient practice.

Today donor expectations of exhaustive spend and successfully executed programs deter organisations from launching initiatives whose outcomes are uncertain, like vehicle sharing. This risk aversion creates hidden costs as organisations continue to tolerate the inefficiencies that arise from business as usual.

On reflection, the team at Fleet Forum and the organisations engaging in this study are encouraged by the positive changes toward enhanced effectiveness it has seen in the sector. Years ago, running a fleet was a mechanical and technical job. Costs were not important as long as a vehicle was always available when needed. Time has seen the emergence of fleet managers who understand their managerial role, as well as the total costs and impact of the fleet on the organisation. Many of those responsible for fleet instinctively grasp what needs to be done. The problem they face is that they do not necessarily have the right language or voice (together with the business acumen, communication tools, presentation skills, and the business cases that persuade), to get the job done. More important, they do not have the support from management or donors that is vital to successful change.

That is the transformation that is needed today, and this is where a facilitator like Fleet Forum can add value. It invites USAID and other donors to a dialogue on how best to move forward, to join forces to realize the enormous potential for improvement at the sector level and set new standards for performance.

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