International Federation of Red Cross and Red Crescent Societies

Fleet rightsizing
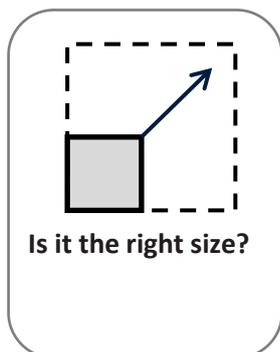## One solution customised to the specific needs of each National Society

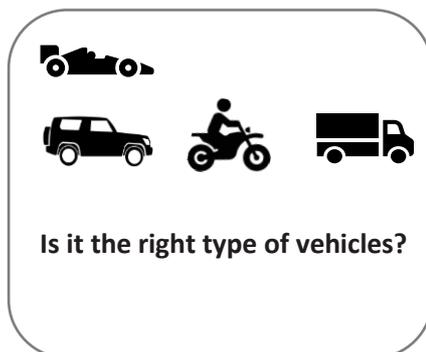A fundamental question that every Fleet Manager should reflect on:

Is my fleet fit for purpose?

This can be further broken down to:

Is it the right size?

Is it the right type of vehicles?

Or is it something that has been inherited from a previous management decision or previous methods of operating?

The determination of fleet size, vehicle acquisition and disposal should be linked to the annual work plan of each office. The number and type of vehicles should be directly related to the actual and/or planned operational requirements of field offices, and cost-efficiency analysis.

A trade-off between maximising the vehicle utilisation vs. ensuring enough vehicles are ready at any moment will help reducing fleet costs: via an enhanced programme planning and car dispatch planning a **car-pooling mechanism** might allow either to require a smaller number of vehicles for the current programmes, or with the existing number of vehicles increase programmes' reach, serving more beneficiaries.
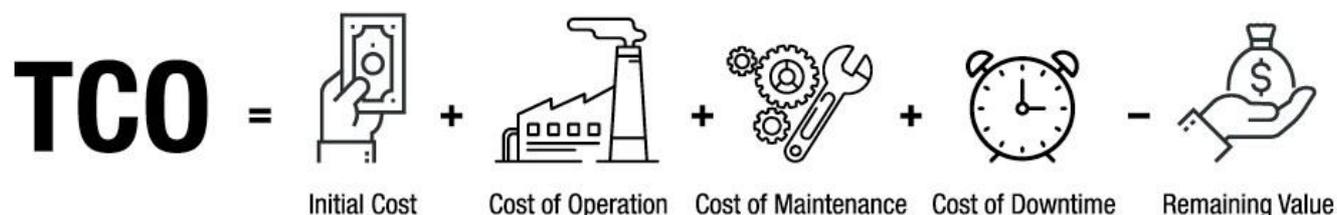
In summary, the following points should be considered when right-sizing a fleet:

1. Planning of transport requirements

2. Types of vehicles required

3. Number of vehicles needed

4. Cost-efficiency

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Total cost of ownership
The cheaper option might turn out more expensive

The concept of total cost of ownership (TCO) is linked to fleet rightsizing. Because it is important to consider that selecting the right type and number of vehicles to perform at their best for the highest percentage of time possible, which in turn will give the best possible return of investment when the vehicle(s) are being disposed.

Hence, calculating and analysing the overall total cost of ownership from acquisition, operation, maintenance to disposal plays a critical role in optimizing fleet management and generating **cost savings**.

Keeping TCO in mind, it is also important to recognize that a greater number of vehicles does not mean better capacity to respond to disasters as in the long-term having more units than needed will become a financial burden since maintaining a large fleet of vehicles will be expensive. Furthermore, a vehicle loses value even when it is not being used, resulting in reduction of the disposal value every month that goes by. Therefore, it is critical to **think about the whole vehicle life cycle** and total cost of ownership (TCO) when optimizing a fleet.

As an example of 'TCO-mindset', the Costa Rican Red Cross shifted from buying the lowest purchase price option to selecting longer-lasting vehicles with less frequent repair needs to save on the overall maintenance costs. And deciding when is better to replace one vehicle with a newer unit (e.g., after 7 years or 100,000 kms), leveraging on the residual value (selling it second-hand), avoiding repairing costs and downtime when it is unavailable for use (broken down or in a workshop).

Vehicle fleet management studies have consistently found that standardization has a direct impact on the total cost of owning and operating a vehicle -improving efficiency-. Economies of scale, via **standardizing a fleet** with one make of chassis, body, equipment, and major components can produce significant cost savings and bring benefits in several areas, such as: improved maintenance efficiency, reduced downtime, increased operational efficiency and safety, fewer diagnostic and special tools, lower inventories of spare parts and bulk fluid, closer vendor relations, fewer contracts and invoices to process, etc.
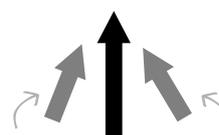
Both the Costa Rican Red Cross and the Spanish Red Cross are examples of National Societies that achieved benefits from standardizing their fleet assets, spare parts, and related maintenance services across branch offices. Both organizations profited from maintenance cost savings, vehicle quality/safety, and an extended vehicle life cycle.
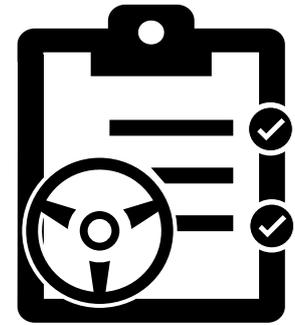
For more details, see the case study from Costa Rica:
https://www.ifrc.org/PageFiles/91193/Case%20Study_Costa%20Rican%20RC%20Fleet%20EN.pdf / video

Vehicle use policy
Rules when using National Society vehicles

The bigger the amount of people and vehicles an organisation has, the more important it is to count with a set of specific guidelines for the management and use of motor assets. It contains regulations for the key functions of fleet management:

Selection of vehicle criteria

Acquisition / importation

Driver recruitment and training

Vehicle keys and documents

Vehicle movement control

Fuel management / sustainability

Vehicle maintenance and repairs

Vehicle incident / accident management

Insurance and claims

Vehicle disposal

Because of the high value motor assets represent, it is fundamental that a National Society creates a vehicle use policy as it will ensure that the fleet is being managed in the best possible way. It shows **accountability on roles and responsibilities**, and it also functions as a decision-making tool for the management. The main objective of a Fleet Manager should be to ensure that all motor asset and vehicle users/operators adhere to such policy.

Furthermore, to embrace the Total Cost of Ownership (TCO) mindset, the vehicle policy should include a section about vehicle replacement: **when to replace and dispose of a vehicle**. It is important to remember that a well-conceived fleet management policy can allow for both higher vehicle utilisation and lower depreciation.

xx,xxx kms

xx years
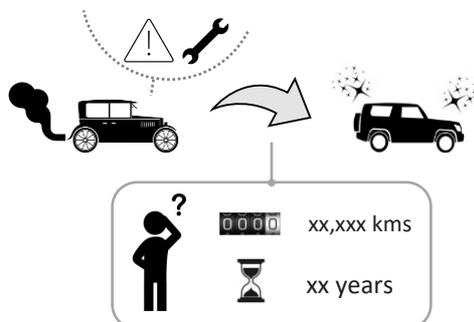
More information on vehicle use policy is available on the Fleet Management Knowledge Sharing Platform in Teams. For access contact: karlkristian.stuns@ifrc.org

Data collection and analysis
Key Performance Indicators

Getting the right data to the right people to make objective and well-informed decisions is paramount to all Fleet Managers.

Why is data analysis important?

Road safety

To operate in a safe way and to mitigate risks.

For example, number of crashes, number of fatalities/injuries as a result of a road crash, number of near misses.

Effectiveness

To know if the fleet of vehicles supports programme delivery.

Because of the transport service, could programme staff reach more beneficiaries?

This is often expressed in how many beneficiaries reached per kilometre, availability and utilisation of the vehicles, number of hours that staff spend in the field (with beneficiaries).

Efficiency

To have insight of costs (Total Cost of Ownership, fuel costs, maintenance and repair costs, etc.) and operate the fleet in the most cost-efficient way.

Carbon footprint

To operate in a green and environmentally sustainable manner.

Typical measurements to control: CO_2 emissions, litres of fuel per 100 km, idle time, kilometres driven by hybrid or electric vehicles.

One of the key challenges humanitarian organisations face is lack of fleet data and poor data quality, usually because fleet data entry is not always being prioritized. Therefore, setting up proper data collection systems in place and utilization of fleet management software or even basic spreadsheets will enable a fleet operator to manage and monitor his/her own fleet effectively and comprehensively.

Fleet Management Systems (FMS) provide a central overview of fleet assets and operating costs, assist in addressing local operational problems and allow all users to benefit from lessons learnt. However, an FMS in itself is not enough, the drivers in the field using the vehicles and filling the logbooks need to also be trained in data collection. Furthermore, staff who regularly monitor data quality in the system is also critical to minimise registration errors, inconsistencies and data gaps.

The Costa Rican Red Cross is a good example of a National Society who has implemented an FMS including a vehicle tracking system which enabled comprehensive data monitoring and making objective decision based on fleet Key Performance Indicators.

https://www.ifrc.org/PageFiles/91193/Case%20Study_Costa%20Rican%20RC%20Fleet%20EN.pdf / video

More information on Key Performance Indicators (KPIs) for fleet management is available on the Fleet Management Knowledge Sharing Platform in Teams.

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Environmentally sustainable Fleet Management

Greening the fleet of vehicles

Environmental sustainability needs to be an integral part of fleet management as **vehicles are one of the largest sources of greenhouse gas emissions**. The future of our planet is at stake and managing a fleet of vehicles in the most sustainable way possible can no longer be secondary.

Some examples about how fleet emissions can be reduced:

Prioritising cleaner and newer vehicles with less CO_2 emissions.

Note: The whole vehicle life cycle -including production- should be considered.

Staff behaviour (e.g., eco-driving training).

Effective and timely maintenance: keeping the fleet of vehicles maintained and working at peak efficiency is an important task; servicing vehicles at regular intervals ensures that parts don't wear out and produce additional emissions.

Transportation alternatives.

Managers should have a role to play when they approve staff travel, for instance don't assign a 4x4 vehicle for city runs or suggest remote meetings instead.

Optimization of route planning and better usage of vehicle seat capacity to reduce the average trip distance. Consider also remote meetings using telecommunication tools to replace some part of transportation.

Vehicle replacement policy in place to replace old polluting vehicles with high mileage.

Have a few electric vehicles in the fleet if local infrastructure allows.

Note: It is important to analyse how the electricity is produced in the country before making any decisions to buy electric vehicles.

Monitor your CO_2 emissions, fuel consumption and engine idle time.

It's important to set a baseline to start monitoring the progress of CO_2 and fuel consumption reduction when implementing various green fleet initiatives.

For more information about how to make your fleet greener, please visit the Fleet Management Knowledge Sharing Platform in Teams. There are lots of useful information, links and green fleet tools that will give ideas on how to reduce your fleet's emissions.

For instance, the Costa Rican Red Cross has been piloting a tool called "System Dynamics Tool" which helped them to find the most efficient ways to reduce the environmental impact of their fleet.