Chapter 5 : Fleet Management

Table of Contents

5.1 What is covered in this chapter?

Definitions
Building a fleet strategy
Fleet sourcing: procurement, rental
Fleet management (incl. safety & incident management)
Fleet disposal
Fleet documentation
BRC driving procedure

5.2 Definition of fleet

In this chapter, 'fleet' will be used as a generic term for any piece of equipment fitted with an engine, including vehicles, motorcycles and power generators.

5.2.1 Types of vehicles

This chapter will cover the use of passenger vehicles and cargo vehicles equipped with engines, as well as utility vehicles.

Light fleet	All vehicles weighing up to 3.5 tonnes, including passenger cars, pick-up trucks, small trucks, minibuses up to 16-seaters
Passenger vehicles	Buses with over 16-passenger capacity
Heavy duty trucks	Cargo trucks weighing over 3.5 tonnes
Construction and mechanical handling equipment	Including tractors, forklifts, diggers
Motorcycles	Two-wheeled or three-wheeled motorised vehicles

5.2.2 Types of generators

Where power is not available through a publicly maintained network, generators may be necessary as a temporary or permanent source of power. A variety of generators are available, which can make the selection process complicated.

A generator is generally composed of an electrical generator (the alternator) and an engine (or prime mover), in a single piece of equipment.

For more details on types of generators and how to use them, see Section 5.2.2.

5.3 Defining fleet needs
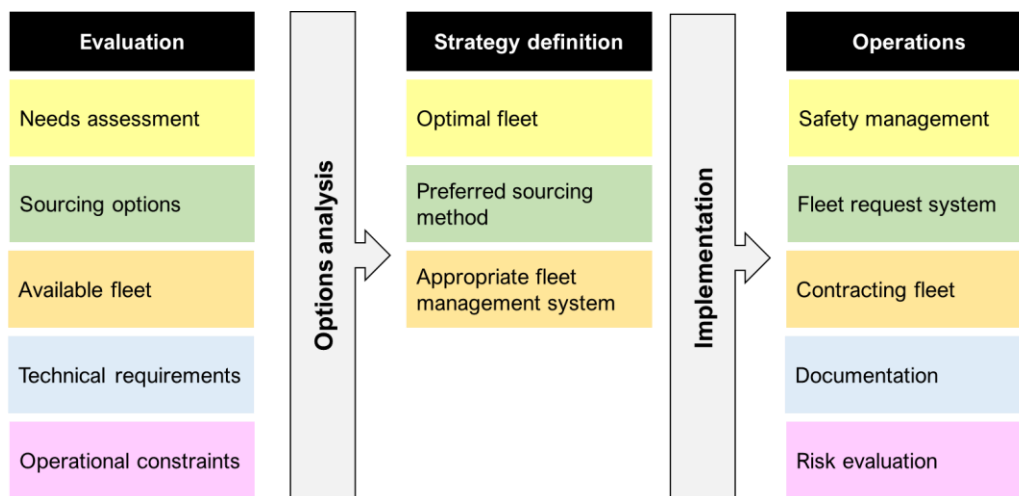
* This includes security context and regulations that may apply (import options, labour law, etc)

5.3.1 Vehicles

The number and type of vehicles should always be aligned to the operational needs and conditions, including security, terrain, and team movement patterns. Operational fleet decisions must be compliant with IFRC safety and security guidelines (as stated in the IFRC Fleet Manual), with any deviation requiring approval from UKO.

The vehicles selected must comply with Federation standards, unless approval for the use of non-standard vehicles has been obtained from UKO.

When selecting vehicles, consideration should be given to the following factors:

VEHICLE SELECTION CRITERIA		
Local terrain and topography	Local driver capacity (automatic or manual driving, 4x4 driving, left or right-hand drive)	Local and national service/maintenance and the availability of spare parts
State of road and traffic infrastructure		
Need for specific equipment, such as in-vehicle communications equipment, a tow-bar or winching equipment, or use of the vehicle as ambulance	Distance to be travelled and estimated usage (frequency, payload, etc)	Local rules and regulations, including emission regulations (not all IFRC-standard vehicles meet current emission levels for all countries)
	Compatibility with existing fleet composition	
Import and export regulations		climate, including seasonal change

The IFRC standard product catalogue contains full technical specifications of Federation-standard vehicles.

The key point for organising fleet is knowing what the needs are for the programmes in the country office (including any sub-delegations) and for general operations. It is the role of logistics to analyse these needs and then optimise the fleet, defining the optimal vehicle fleet requirements. This, combined with the national regulations (i.e. load limits for trucks) and the limitations of the surrounding area (i.e. infrastructure) will provide the necessary information to choose the most effective set-up of fleet.

Defining the number and type of vehicles depends on the volume of the workload and the material or number of passengers to be transported, as well as the distance and terrain covered. Each type of vehicle has its own specifications regarding load, type of goods and passenger capacity.

The below table will help define the type of equipment needed in operations. To help calculate the number required of each type of vehicle, see Annex 9.01, vehicle set-up evaluation in the ICRC fleet management manual.

Consider	Criteria	Decisions
Type of terrain	Town/country/topography Paved/dirt roads Seasonality Warehouse Construction site	Cars, high-range 4x4, low-range 4x4, engine power Specifications of vehicles Tyres, sand plates, motorbikes, etc Forklift Digger
Transport capacity	Bridge and road weight restrictions Local/international distribution Transport of passengers/cargo (see Section 5.4.6)	Light trucks Trucks Bus
Radius of operation	Vehicle fuel capacity and reliability Number and type of vehicles Typical and exceptional journey durations Fuel quality and quantity in area of operation	Refuelling options, linked to typical and exceptional journeys (mileage and duration) Fuel sourcing strategy Storage on site
Availability of electricity	Power for all operations Security	Generators vs. city power

Each department has its own needs in terms of type and number of vehicles to add to the fleet list. For example:

- Administration may require cars for errands or official visits
- Protection teams may need light 4x4 vehicles for field visits and transfers
- Construction and warehousing teams may need pick-ups for equipment
- Teams in charge of distribution (usually called relief team) will need trucks

Combining and analysing these needs into a summary table will help constitute the fleet (in number and type), in a way that meets the needs of each team and minimises the cost of operation. The vehicle pool system (see Section 5.4.8.1) should be considered, as it maximises vehicle utilisation through avoiding the taking of vehicles without justification.

	Team 1	Team 2	Team 3	Team 4	Team 5	**Total**
Vehicle type 1						
Vehicle type 2						
Vehicle type 3						
Vehicle type 4						
Total						

5.3.2 Power supply

Generators must be set up and maintained by qualified staff – a mechanic or a head driver. Support is always available from locally available staff from other PNS, IFRC or ICRC or from UKO-based logisticians.

Specialist skills are required to manage generators. Staff involved in plant management processes must be trained electricians or experienced logisticians.

Generators usually produce single-phase electricity, which is used when the loads are mainly lighting and heating, and for small electric motors. A single-phase supply connected to an AC electric motor will not produce a rotating magnetic field, so single-phase motors require additional circuits for start-up and are unusual for power ratings above 10kW. All generators used in BRC operations are single-phase. Seek specialist advice for the operation of three-phase generators.

The output of a generator is measured in KvA (kilovolt-ampere) and volts. They can be air or water-cooled and can be soundproofed (silent) or not. Generators are either petrol or diesel-powered.

The BRC uses hybrid generators when deploying their Logistics or MSM Emergency Response Unit teams (see chapter 8 for details on the ERUs). These provide standard power generation and simultaneously charge a set of batteries, which can be used to provide power once the generator is turned off. The batteries' power demand must therefore be included in the load calculations. Details of the generator specifications as well as a user manual are available from the international logistics team upon request, and provided to the ERU teams when they deploy.

It is important to match the power generated to your electrical needs as closely as possible: if the load is too high, the generator will stop and be damaged. But when the generator is supplying less than 40–50 per cent of its power capacity, fuel consumption increases, the lubricant deteriorates more quickly, and the engine's life cycle is reduced.

Without any power demand to it, a generator will typically already be using 25–30 per cent of its rated power.

To maximise the generator potential, the largest electrical motor should be started on its own and further appliances should be switched on thereafter.

Scenario		Impact on generator set
A	Power demand is less than 40–50% of the maximum rated power	Fuel consumption increases. Generator life cycle is reduced. Lubricant deteriorates more quickly.
B	Power demand is between 60–80% of maximum rated power	Optimal use of the generator.
C	Power demand is more than 80% of the maximum rated power	Fuel consumption increases (but less than in Scenario A).
D	Power demand is more than 100% of the maximum rated power	Generator stops. Generator life cycle is reduced.

It is a good idea to have batteries as part of an electricity provision setups, so that they can be charged while the generator is turned on. Critical appliances (communication systems, fridges, alarm and/or security systems) can then work in case neither city power nor the generator can supply power. If the generator is used to charge batteries, make sure their rated kVA is calculated into the total power requirements.

Current technology means it is not feasible to rely completely on solar power; at best it may be considered as back-up to supplement generators and battery banks, which can be charged with solar power using solar panels.

To calculate your power supply needs and to choose the right generator, use the below indicative table. The generator size (in kVA) must be equal to or greater than the total consumption of all appliances. The higher starting requirement must be taken into account when calculating the generator size.

Appliance	Rated power (watts)	Rated kVA (To *operate* appliance)	Rated kVA (To *start* appliance)
Air conditioner (evaporative model)	275–1,000	0.34–1.25	1.36–5
Air conditioner (reverse cycle)	200–2,500	0.25–3.13	1–12.5
Clothes dryer	2,400	3	3.00
Coffee percolator	550	0.69	0.69
Deep freezer	500	0.63	2.52
Dishwasher	1,000–3,000	1.25–3.75	1.25–3.75
Domestic water pumps	275–1,000	0.34–1.25	1.36–5
Exhaust fan	40	0.05	0.20
Floor polisher	350	0.44	1.76
Hair dryer	1,500	1.88	1.88
Hot water service	2,500–3,000	3.13–3.75	3.13–3.75
Iron	800–1,500	1–1.88	1–1.88
Kettle or jug	1,600–3,000	2–3.75	2–3.75
Laptop	60	0.4–0.6	0.5
Lights	25–200	0.03–0.25	0.03–0.25
Microwave	1,500	1.88	1.88
Oven	4,000–8,000	5–10	5–10
Printer	30–50	0.2	0.2
Projector	300	0.28	0.33
Radio	60	0.08	0.08
Radiator	1,000–2,500	1.25–3.13	1.15–3.13
Refrigerator	300	0.38	1.52
Sewing machine	60	0.08	0.32
Space heater	2,000	2–5	2.50
Television	75–200	0.09–0.25	0.09–0.25
Toaster	250–1,250	0.3–1.56	0.3–1.56

Washing machine	500–3,000	0.63–3.75	2.52–15
Welder (140A)	5,000	6.25	8

Consider	Criteria	Decisions
Electrical load	Total load calculations Power (kVA) Local voltage and frequency	Reduce requirements? Alternate generators? (consider whether budget can cover duplicate setup)
Expected usage	Permanent/back-up system Consider requirement for UPS by way of back-up Starting system (manual/electric/automatic)	Alternate generators if constant power supply needed Establish running hours with regular breaks (consider if budget can cover duplicate setup)
Make, brand, Place of manufacture	Local availability and quality of relevant fuel and parts Local maintenance capacity	Budget for fuel and spare parts
Geographical area of use	Altitude Temperature and weather conditions Exhaust emission regulations Cooling system (air/water	Improve electrical safety at location Isolate generator appropriately (consider budget availability)
Place of use	Indoors/outdoors Ventilation Protection from elements Noise and disruption Type (portable/fixed/on trailer) Safety	Budget for generator shelter or noise reduction system Require inspection of terrain Security requirements How to earth it effectively?
Price	Budget, set-up costs, maintenance costs	Within budget / out of budget

Selecting fleet/power supply setup

- Think about how you will use the fleet and how much power you need
- Decision factors for fleet: type of terrain, capacity required, radius of operation
- Decision factors for generators: load, expected uses, place of use, brand
- Calculate your estimated power requirements carefully
- Consider local constraints, but strive for standardisation (see IFRC standard product catalogue)

5.3.3 Fleet options and modalities

The RCRC's aim regarding fleet management is to standardise fleet as much as possible, allowing for easier tracking, resource-sharing and maintenance management. It also allows different parts of the Movement to benefit from competitive pricing from manufacturers.

Vehicles outside the list of standard fleet should only be purchased after approval from a centralised fleet management team (usually HQ logistics, IFRC or ICRC).

The IFRC standard product catalogue and VRP programme include the list of standard vehicles.

Fleet to be used in field operations should always be procured centrally and through the existing agreements with manufacturers.

Where fleet is being procured locally and only for city use, the following criteria should be adhered to as much as possible:

Make	Well-known European or Japanese make, well represented in country of operation
Category	City car (Peugeot 208, Toyota Corolla or equivalent), not necessarily a station wagon
Engine power	Maximum 100 hp or 75 kw
On-board security	Alarm/immobiliser, antilock braking system (ABS), electronics stability control and air bag if available
Fuel	Diesel or petrol (check regulations, availability and consider the environmental impact)
Pollution control	Optimum, but at least as per local regulation
Transmission	Two-wheel drive, preferably automatic – unless road conditions in the city require four-wheel drive
Colour	Preferably white, and a light colour if not available – should not clash with Movement visibility
Budget	Equivalent to the cost of standard vehicles
Maintenance	Access to local maintenance without HQ support

Standardisation and compliance to environmental regulations should also be applied to the choice of generators. In general, ensure that the brand is well-established, that fuel type matches local fuel availability and that spare parts and maintenance are widely available.

5.3.4 Different types of fleet sourcing solutions

5.3.4.1 BRC own fleet

In this option, the BRC purchases the vehicles and uses them for its operations.

The decision of what vehicles and how many to buy will be based on operational needs and the procurement must be controlled and managed through UKO. Such vehicles would be

purchased and imported under the HNS and the BRC would donate the vehicles to them once the BRC-supported programme ends.

This option would usually only be considered when:

- It represents better value for money than other options, such as using the IFRC's VRP system
- Vehicles are required for more than two years
- There is assurance that the donation does not place an unnecessary burden on the HNS in terms of maintenance and cost.

In these cases, the BRC usually covers all the costs associated with the vehicles, including maintenance, drivers' charges including per diems, local insurance, registration and fuel.

> The maintenance of BRC-purchased vehicles outside the UK is done following the IFRC maintenance guidelines, unless it is agreed that the vehicle is managed under the HNS' fleet management procedures..

5.3.4.2 Commercial rentals

Renting vehicles or outsourcing their maintenance can be a requirement for an operation either temporarily (during a short-term surge in activity) or as a long-term solution (where ownership is not an option).

If renting vehicles, the applicable procurement procedure should be followed. The selected rental company must be reputable and offer value for money. See section 1.6 for more details.

5.3.4.3 IFRC vehicle rental programme

For step-by-step guidance on sourcing vehicles through the VRP, refer to the VRP service request management/business process document.

5.3.4.3.1 The Vehicle rental programme

The International Federation's vehicle rental programme (VRP) was established in 1997 to ensure a cost-effective use of vehicles and fleet resources. Revised in 2004, it continues to be an effective means of providing vehicles to International Federation and National Society operations. The programme is run as a not-for-profit service within the International Federation; monthly vehicle rental charges are calculated to cover the vehicles and the operating costs of the VRP.

Depending on the estimated period of vehicles' requirement, it may be cheaper or more straightforward to rent them through the VRP, but a full cost comparison should be done before a decision is made. Cost comparison must cover the cost of the vehicle, shipping, registration, insurance and local insurance, maintenance and PSR of 6.5 per cent.

The overall aim of the VRP is to provide good-quality vehicles as quickly as possible, and with maximum bulk discount. It also enhances standardisation, centralises control and minimises costs, through end-of-lease sale. Vehicles on this programme are managed through the fleet base in Dubai and remain the property of the IFRC. All leases must be organised through the IFRC.

The vehicle rental programme is managed through the global fleet base in Dubai, but a lot of the fleet management team's responsibilities are delegated regionally and implemented through regional fleet coordinators in the Operational Logistics procurement and Supply Chain Management units (OLPSCM, also known as Regional Logistics Units).

The VRP agreement is materialised through a vehicle request form, which must be signed off by the BRC country manager and submitted to the global logistics services (GLS) team in Dubai.

The requesting programme's lead (programme manager, country manager or ops manager) is responsible for authorising the VRP contract with the IFRC fleet base in Dubai, on the recommendation of logistics based on the review of the above options.

Note: Monthly VRP invoices are processed through UKO.

5.3.4.3.2 Global fleet base vs regional units: roles and responsibilities

VRP SYSTEM – ROLES & RESPONSIBILITIES

Global fleet unit (Dubai)	Regional fleet coordinators (in OLPSCMs)
Overall VRP management (operational and financial)	Implementation and maintenance of IFRC standards at a regional level
Maintaining the VRP business plan	Advise on the implementation of preventative maintenance and repairs to maximise lifespan and usage of regional fleet
Procurement hub for vehicles and vehicle-related items	Coordinate movement of fleet across the region
Managing all incoming requests for dispatch and allocation of new and used vehicles	Supporting planning of transportation needs in the region
Supporting disposal of VRP vehicles	Implementing standard asset disposal procedures
Preparing vehicles for deployment (technical assessment and repairs)	Ensuring proper maintenance of fleet wave database and analysing data
	Reporting on regional fleet usage to global fleet base
	Maintaining regional fleet files
	Advise and train on fleet sizing, fleet management and VRP
	Managing regional IFRC fleet

5.2.4.3.3 VRP rental costs

To encourage forward planning, cost incentives have been built into the VRP. Rental rates are based on a sliding scale, in which longer rentals benefit from cost savings (i.e. a sliding scale, based on the duration of the contract).

Model	Five-year average monthly cost (CHF)	12-month average monthly cost (CHF)
Toyota Land Cruiser HZJ78	720	830
Toyota Land Cruiser pick-up double cabin HZJ79	671	775
Toyota Land Cruiser pick-up single cabin HZJ79	650	750
Toyota Land Cruiser SWB HZJ76	736	850

Toyota Land Cruiser Prado LJ150	696	800
Toyota Corolla ZZE142	635	TBC
Toyota Hiace minibus LH202	621	715
Nissan Navara pick-up double cabin	546	630

These rates are indicative and may change – quotes can be requested from the Global Fleet team when considering renting vehicles through the VRP. The latest version of the <mark>rate sheet</mark> is dated from 2016.

An additional 6.5 per cent programme support recovery cost must be added to the total cost of the contract with the VRP, as well as delivery and return shipping costs (including any applicable import duties).

VRP SYSTEM – COST STRUCTURE

Included in VRP rental rate	Not included in VRP rental rate
Global third-party liability insurance cover (up to CHF 10 million)	Telecom equipment ordered by the operation
Full vehicle damage insurance (including a replacement vehicle)	Additional equipment: snow chains, spare part kits, roof rack
Vehicle replaced at the end of its lifetime	All charges linked to the delivery of a vehicle: shipping, in-county transport, customs duties, taxes for import, port and warehouse charges, etc
Fleet management support	All in-country charges: registration, vehicle insurance, local third-party liability insurance, etc
Accident insurance for driver and passengers	All operating costs, including fuel, maintenance and repairs
Specialist driver training (depending on context and availability of funding)	All charges linked to the return of the vehicle to a VRP stock centre or secondary destination (as requested by global fleet base): customs duties and taxes for re-export, cost to deregister the vehicle in-country, transportation, port and warehouse charges, etc
Access to a web-based fleet management system	Any costs for additional repairs resulting from the loss of or improper documentation relating to a vehicle's maintenance history
	Any costs for additional repairs at the end of the rental period, for damage considered beyond the normal wear and tear.

5.3.4.4 Using another National Society's vehicles

Most National Societies use a mileage rate that they charge for the use of their vehicles by Partner National Societies. Alternatively, they may charge a monthly fee or let PNS use their vehicles and only charge them the cost of fuel.

Mileage rates and what they include often differ, and it is recommended to clarify what is covered (fuel, driver costs, maintenance, etc), and how the amounts to be recharged will be calculated.

5.3.4.5 Choosing the best vehicle ownership solution

	Benefits for BRC	Risks for BRC
BRC owned vehicles	Vehicles belong to BRC	BRC must source the vehicles and ship to operation where required
	At the end of a project, these can be disposed and realise residual value	Some governments force international organisations to donate vehicles to their governments at the end of a project
	BRC is free to donate these vehicles to any partner of choice after the end of a project or five years	Vehicle must be managed as an asset (including depreciation)
		BRC must spend large sum to buy the vehicles outright
		If mission is cancelled or discontinued at short notice, BRC is stuck with these vehicles
		It is difficult to increase/reduce fleet size at short notice, but surge option plans can be built in
		Donor constraints on expenditure
IFRC's Vehicle Rental Programme	Monthly vehicles rental cost is known, so easy for budgeting purposes	Solution includes shipping the vehicle into operation area and shipping out after the end of the lease, which can delay the availability of the vehicle to the operation
	Access to standard IFRC vehicles	After five years, vehicle still belongs to IFRC and BRC cannot donate it to partners
	Scalability of fleet	Can be expensive in the short term, considering shipping costs into and out of operational area.
	Vehicles comprehensively insured at global level by IFRC	IFRC will charge a programme support recovery fee
	IFRC will replace vehicles after 150,000km or five years, whichever comes first (in-country costs associated to vehicle change will need to be covered by the requesting PNS, but all other costs covered by GLS)	
	IFRC will provide fleet management support, including cost tracking and driver training	
	No cost of disposal	
Local vehicle rental	Locally available and no importation costs or delays	Rental rates can be very high
	Easy to scale up or down	There may be a maximum mileage under the rental scheme
	Easy to arrange at short notice	Locally available vehicles may not be of a good standard
	Supports the local market	Local maintenance practices may not be safe
	Budgeting is easier when rates (including maintenance and service) are fixed	The right vehicles are not always locally available
	No need to have own maintenance facilities or resources	Renting vehicles from questionable business people could result in bad reputation by association. Consult international sanctions lists before entering a lease agreement.
Using other NS's vehicles	Vehicles are readily available and easy to scale down	Not always easy to scale up (they might not have enough vehicles)
	Gives support to movement partner	Only possible with small requirements
		Vehicles are not always of a good standard
		BRC can only use what the partner has excess of or does not require

Ownership Options
• Own fleet: Large investment but good control over quality and maintenance. Possibility of selling or donating
• Rented fleet: Light investment and flexible ownership model (can adjust to activity level), but less control and high costs over extended period
• IFRC vehicle rental programme (VRP): High-quality service and easy for budgeting, but a risk that availability is impacted by shipping delays
• Using vehicles from other NS: Support to NS, but difficult to scale up. Only useful for smaller, stable needs

5.4 Resourcing for fleet management (budget, procurement, HR)

5.4.1 Budgeting for fleet

Fleet management budgets should include the full costs associated with running fleet, including:

- Cost of vehicle acquisition (buying, rental costs)
- Cost of fuel, service and maintenance
- Shipping costs associated with the acquisition or return of vehicle (including import tax, if applicable)
- Disposal costs (at the end of the programme)
- Insurance costs
- Registration and licensing costs
- Drivers' costs (include per diems for field trips)
- Other staff costs associated with managing the fleet (e.g. dispatchers, mechanics)
- Costs of additional equipment associated with the fleet, including vehicle radios, first aid kits, fire extinguishers, alarm systems and tracking systems

Fleet management typically includes fixed costs and running costs:

BUDGETING FOR FLEET - COSTS	
Fixed costs: One-off costs to make fleet available to the operation	**Running costs:** recurring costs to maintain availability of fleet for use
Vehicle / generator	Driver costs
Import costs (if applicable)	Maintenance
In-country registration cost	Spare parts
End-of-life sale income	Fuel
	Insurance
	Depreciation
	Parking fees and tolls
	Revision costs and renewal of roadworthiness certificate (where applicable)

When budgeting for fleet, both cost types must be included in the budget (preferably separately), and expenses against each must be tracked, reported and analysed in monthly reports.

Data for the **logistics monthly reports** should be provided by finance, but the logistics or fleet unit are responsible for checking the reported expenses against approved purchases, maintenance orders or fuel requests.

It is helpful to consult with HQ offices or the HNS regarding information about fixed costs, as they will have data from past operations. In some cases, standard fixed costs will apply (especially where fleet is procured against centrally managed framework agreements), and average running costs can be supplied (for insurance or depreciation, for example). Data should be as accurate as possible, so the HNS will usually be the most reliable source of information.

For vehicles supplied via the IFRC VRP scheme, monthly reports are required to be submitted to the IFRC fleet base (usually via their 'FleetWave' system) – the required data forms part of the VRP contract.

5.4.2 Procuring fleet: process, selection criteria, delivery

In general, it is recommended to use existing framework agreements to purchase vehicles (FWAs can be held globally by the ICRC or IFRC, or locally by the Host National Society) as this allows centralised purchasing and management, and economies of scale.

Where there are no FWAs in place, the procurement of fleet will generally be done through a tender process, due to the high value of the acquisitions.

Refer to the procurement chapter for details on the tender process (Sections 1.6.1.3 and 1.6.3).

Fleet-specific considerations when tendering for vehicles:

TENDERING FOR VEHICLES		
Ensure that a registered Movement partner in country (IFRC/HNS) agrees to be the buyer and legal owner of the vehicles, and include them in the tender process	The tender response document must specify the origin of the vehicles, their year of manufacture, current mileage, service history and warranty details (if purchasing second-hand)	Specifications* must be developed per RCRC standards, preferably with input from expected users and logistics experts. It is strongly recommended to consult BRC UKO team. Specifications must be as detailed as possible.
The committee on contract should include representatives from the legal buyers (IFRC/HNS) and the funding partners.	Specify in the tender document whether the purchasing organisation is exempted from paying import taxes and duties	
Technical experts and end users should be represented on the Coc too (ask UKO logistics coordinators if necessary)	The tender response document should include a breakdown of costs: vehicle, options, import fees and registration fees	Submissions to the tender must include an ownership certificate from the current owner of the vehicles.

For specifications, see 5.2.3

Options to avoid, if possible:

- Electronic systems that are too sophisticated
- Automatic transmission is to be considered only if there are competency restrictions with manual transmission
- Specifications with risk of adverse perceptions, such as tinted windows or leather seats
- Non-compliant with local and national emission regulations

Buying second-hand vehicles is not permitted by all donors – check with your programme team which procurement rules apply under the funding used.

5.4.3 HR resources for fleet

The staff required to run the operational fleet depends on the size of the fleet, the number of daily vehicle movements and the operational context of the project.

RESOURCING FOR FLEET – HR		
Fleet size	**Nb of vehicles**	**Recommended HR structure**
Small	1 - 5	Admin delegate with senior driver
Medium	6 - 29	Fleet manager and vehicle dispatcher
Large	> 30	Fleet delegate with full team

The operation should align budgets to activity levels to determine the fleet department's resourcing structure. The following are roles to consider in a fleet team:

- Vehicle drivers
- Dispatchers
- Fleet supervisors (or head driver)
- Fleet managers
- Fleet assistants
- Radio room staff
- Mechanics

Standard role descriptions, with detailed competency and tier requirements, are available from the UK-based Logs team.

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- Consider fixed and running costs when budgeting for fleet
- Monitor fleet costs with support from finance department
- Use Movement framework agreements where possible, and otherwise run tenders
- BRC is unlikely to be able to own vehicles outside of UK, so consult with IFRC or HNS to agree terms of procurement and ownership
- Ensure HR resources are aligned with the size of fleet

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5.5 Vehicle usage

5.5.1 Vehicle registration process

All vehicles must be registered in their country of operation, in compliance with local law.

Vehicles (and larger generators) must be registered and insured before they can be considered operational. The registration process depends on the circumstances in which the vehicle arrives in the operation:

- The vehicle is imported new, with no previous registration records
- The vehicle comes with export plates from the country of dispatch (which may or may not be the country of origin). Export plates usually have limited validity
- The vehicle is still fully registered in the country of dispatch
- The vehicle is already deregistered in the country of dispatch
- The vehicle is registered in a third country

Import procedures must usually be completed and the vehicle must be customs cleared before it can be registered. In addition to the customs clearance certificate, the below documents will be required:

- Invoice
- Packing list
- Certificate of origin
- Vehicle gift certificate (if applicable)

Only a partner with legal status in the country of operation can register a vehicle in their name. Therefore, vehicles used in an operation will usually be registered under the name of the IFRC or the HNS, unless collaborating PNSs have legal status in the country of operation.

Note: Generators and handling equipment do not usually require registration but this can vary between countries.

5.5.2 Insurance

Only a partner with legal status in country of operation can subscribe to an insurance policy. Therefore, vehicles used in an operation will usually be insured under the name of the IFRC or the HNS, unless collaborating PNSs have legal status in the country of operation.

Vehicles rented through the VRP (see Section 5.2.4.3) will be included in the IFRC global insurance policy, but additional insurance policies must be subscribed to locally, as applicable (these are usually third-party, theft and accident).

The IFRC can provide subsidiary third-party insurance for all VRP and operation-owned vehicles, including PNS-owned vehicles that are registered through an IFRC operation and comply with Federation requirements (see below). The IFRC can also provide self-insurance provision (SIP) to cover repairs and replacement costs in case of accidents, though this is only available to VRP-leased vehicles. Claims raised under the SIP policy must be reported within one month of an accident.

Refer to the VRP agreement for more details on insurance claims and payable excesses.

A Federation operation may register vehicles for insurance on behalf of a PNS under the following conditions:

- A fixed asset registration form is submitted and IFRC operation obtains approval from global fleet base
- The PNS signs an integration agreement with the operation

> Vehicles owned by a PNS and registered under the IFRC are subsequently covered by all IFRC insurance policies.

- The PNS agrees to respect the IFRC's standard operating procedure, as laid out in the IFRC fleet manual
- All PNS drivers are tested and sign the operation's driving rules and regulations
- Only drivers with a valid authorisation issued by the head of the IFRC operation may drive the vehicles

In order to register the vehicle in the name of the IFRC, the PNS must present the vehicle to the IFRC with a gift certificate and commercial invoice, certificate of origin and packing list. If the PNS intends to export the vehicle at a later date, this should be agreed in writing at the time of registration.

In order for the Federation-contracted insurance policies to apply, insured vehicles must be driven by RCM staff with a driver's authorisation form.

5.5.3 Tracking vehicle and generator use

For accountability and safety purposes, the use of fleet in an operation must be monitored. It is recommended that regular training is conducted, with refresher training for fleet users and spot checks on the correct use of logbooks.

5.5.3.1 Vehicle logbooks

Every vehicle operated by the BRC, including rented vehicles, must have an allocated vehicle logbook to monitor the use of the vehicle, refuelling and maintenance.

Every movement of the vehicle must be captured in the logbook, which is an auditable document.

Where cargo is transported, reference must be made on the logbook to the waybill associated with the load transported

Every entry in the logbook must be signed by the driver (for refuelling), the passenger (for trips) or the fleet manager (for maintenance services).

Where vehicle costs are charged to specific cost codes or programmes, these must be recorded in the logbook, with the passenger or cargo details.

5.5.3.2 Generator and handling equipment logbooks

The use of generators and other handling equipment such as forklifts must also be monitored and auditable. Running hours must be captured in a logbook. Details to be included in the generator and handling equipment logbook include:

- Every period of usage (running hours) – signed off by the user in charge
- Refuelling – signed off by the person in charge
- Maintenance services – signed off by the fleet manager or mechanic (as applicable)

The generator (or equipment) handbook must be controlled by the logistics lead at regular, pre-agreed intervals. The logistics lead should sign or initial pages after each regular check.

Generators and handling equipment should normally be allocated to a specific cost code or programme. Where that is not the case, details of the recharge must be indicated on the logbook.

5.5.4 Safety and security

5.5.4.1 General vehicle safety

Fleet procedures and road safety policies are in place to ensure maximum security for drivers, passengers, and vehicles, and must be adhered to.

All vehicles must be mechanically sound and roadworthy. Fuel, tyres (including the spare), water, coolant, brake fluid, steering fluid and oil levels must be checked regularly.

Around 50% of the incidents in humanitarian organisations concerning safety and security are related to the use of a vehicle.
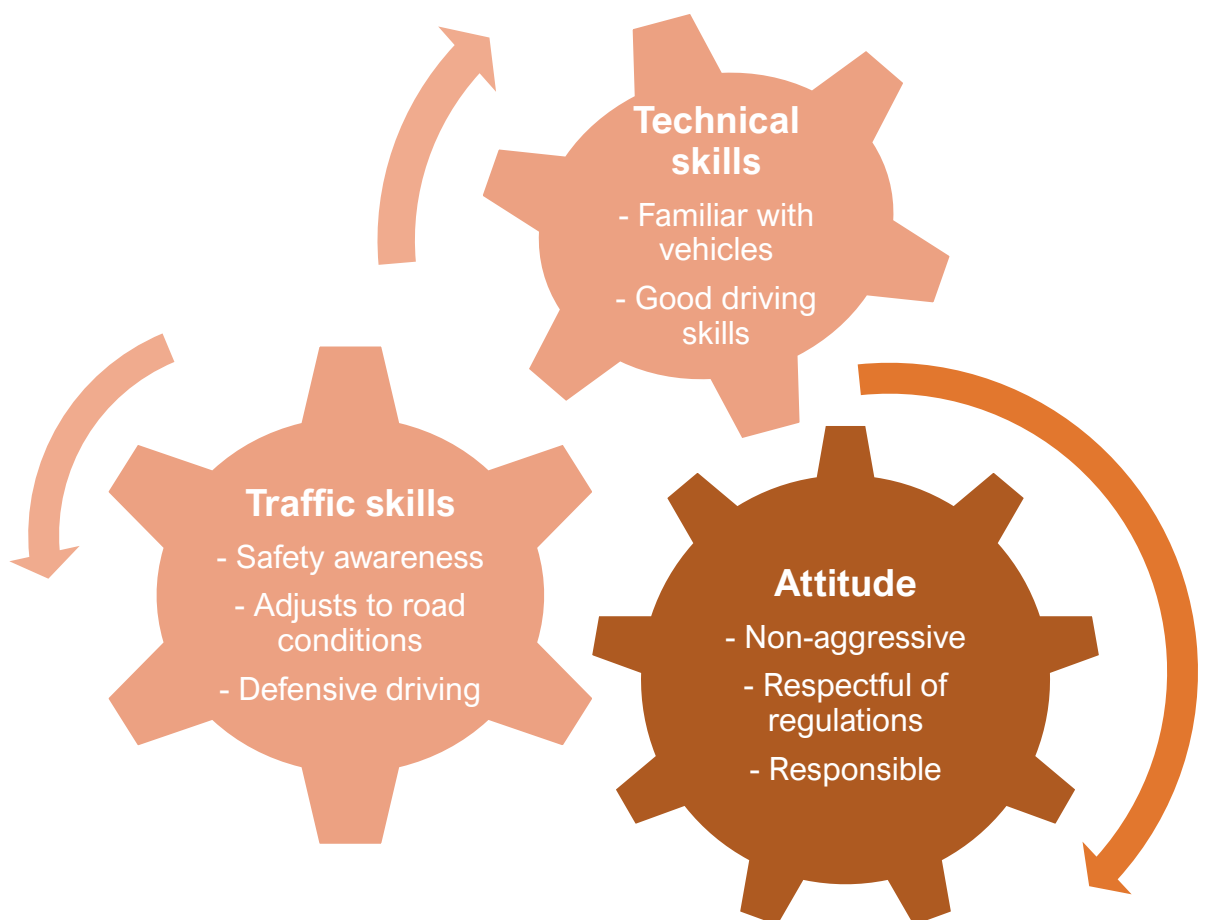Accidents, carjacking, vehicle and fuel theft are the most common incidents.

Refuelling should be optimised so that a vehicle's tank is always at least half full.

Depending on context, all vehicles should be equipped with communication equipment, emergency repair materials (spare tyres, jump leads, vehicle jacks), passenger safety equipment (safety belt, drinking water), accident preparedness equipment (first aid kit, fire extinguisher, list of contact numbers). All vehicles must be equipped with Red Cross markings, including emblem and no weapons sign.

As per Section 4.5.6, inspection and maintenance must be planned, conducted, and documented, in order to ensure that vehicles and generators are safe and efficient.

The driver of a vehicle is responsible for checking the condition of their vehicle and all necessary equipment in the vehicle, while the facilities manager is responsible for checking the condition of generators.

Technical skills
- Familiar with vehicles
- Good driving skills

Traffic skills
- Safety awareness
- Adjusts to road conditions
- Defensive driving

Attitude
- Non-aggressive
- Respectful of regulations
- Responsible

Aspects of a good driver

5.5.4.2 Using generators safely

Where generators are used as back-up power or a primary power supply system, the below recommendations will ensure safe usage of the units:

21

Generator sheds (see the example design below) are recommended to limit access to the generator and protect humans and animals. It also ensures that only one person oversees the maintenance of the generator.
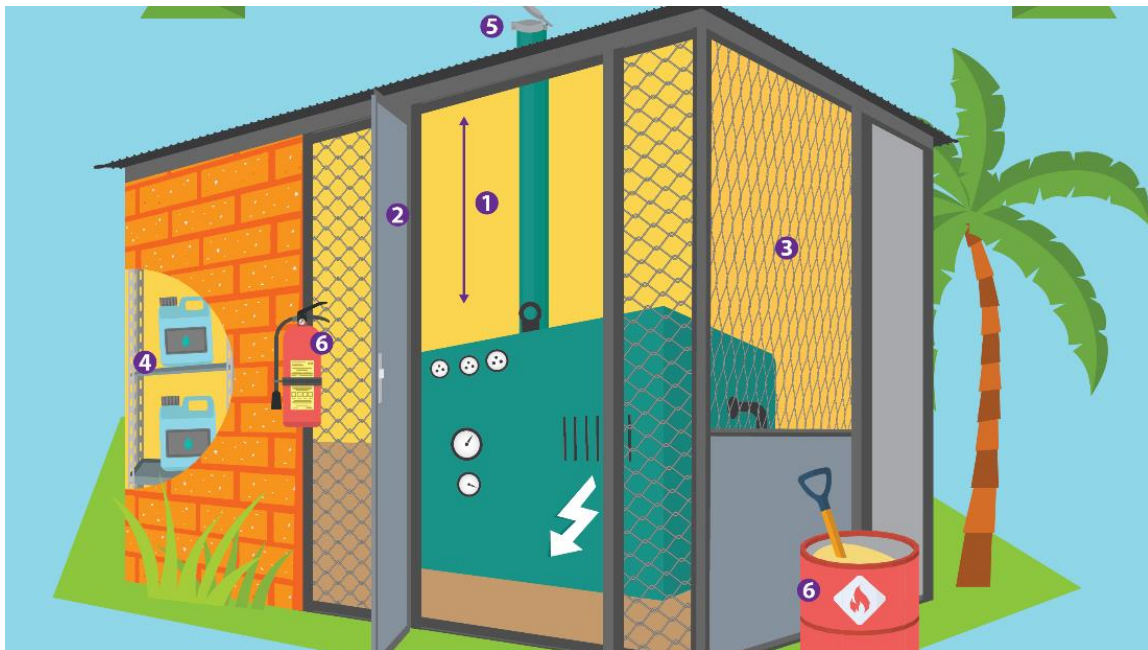
1. Distance between the top of generator and the ceiling is a minimum of 1.5 metres to ensure good ventilation and access for maintenance. Around one metre is required around the generators and between two generators
2. Well-secured area with a lockable gate, blocked from weeds growing in but sufficiently open to let gas escape
3. Enough openings in the structure to allow good ventilation, both at the bottom and the top
4. Sufficient space for the storage of oil, funnels etc. Fuel should not be stored in the generator room/shed.
5. Exhaust outside the structure, protected from rain and a straight pipe without sharp angles
6. Firefighting equipment – an ABC-type fire extinguisher and a bucket of sand with a shovel as a minimum

GENERATOR SAFETY - BASICS		
SETUP		
Ensure the ground (or preferably the concrete foundation) is strong enough to hold the weight of the generator.	Elevate the generator by 10–20cm above the ground to prevent it from flooding.	In very hot conditions, generators might overheat. A running schedule should be used to allow the generator to cool down. Do not open the doors of the generators while it is running, as this disables the cooling function.
USAGE		
Do not daisy chain extension cables, as they will melt.	Do not overload the generator by connecting too many appliances at the same time. See appliances' kVa rates table in 5.2.2.	Make sure a grounding pin is properly installed to the generator, and that all the cables and appliances have a connection with grounding.

For the semi-permanent installation of generators, a qualified electrician should be hired to connect the generator to the internal electric network. Connecting appliances directly to the generator in emergency settings should be done using the generator's manual.

Raising the generator on a wooden structure (pallets, for instance) may help reduce the vibrations in the generator set, thus increasing the generator's working life and dampening the sound of the engine.

5.5.4.3 ICRC Convoy procedures

When operating in the field, the ICRC and other Movement partner often travel in convoys. Because of the nature of ICRC operations, unarmed and in conflict situations, humanitarian personnel often travel in a group of vehicles, for protection purposes. The head of delegation decides in what situations this is necessary.

The aim of the ICRC Convoy Procedure document is to provide guidelines to staff organising or joining convoys. The list of responsibilities is designed to help conveyors and drivers in the field, before, during and after a convoy.

5.5.5 BRC driving procedure

The British Red Cross has a ' Driving in the British Red Cross' policy that must be adhered to when driving a BRC vehicle in the UK.

When driving a BRC vehicle outside the UK, the agency with security lead (the IFRC, ICRC or HNS) provides driver regulations. It is the responsibility of every BRC delegate to enquire about applicable driver regulations when joining a Red Cross operation.

The driving policy should cover the use of vehicles for private use, eligibility criteria to drive, health and safety management and contact people, instructions on how to request for vehicles and guidance on reporting the use of vehicles.

> When delegates use vehicles for their personal use, they must follow the local fleet management system in place in terms of requesting the vehicles, recording their use of the vehicle and following the security guidelines in place

Provided that they have passed the driving test and hold an official driving license, delegates may be allowed to use vehicles for personal use. However, rules applying to the personal use of vehicles will vary depending on the context of the operation, and advice should be sought from the IFRC or the HNS.

In some operations, the personal use of fuel will be recharged to delegates.

⚠️ Logbooks must be kept up to date for personal as well as professional use.

5.5.6 IFRC driver rules and regulations

All personnel deployed within the IFRC must read and sign a copy of the operation's ==driver rules and regulations form== before they are authorised to drive a Federation vehicle.

The form sets out both country-specific rules and standard operating procedure for the use of Federation vehicles. A signed copy of the form will be kept in the staff member's personnel file.

The default position on IFRC and other RC missions is that delegates are not allowed to drive themselves, unless the country-specific driver rules and regulations allow it. Medical evacuations and security situations are treated as exceptions to that position.

The standard ==driver rules and regulations form== must be adjusted to reflect country-specific conditions. The head of operation for a Federation operation, the head of project for a PNS operation or the secretary general for a National Society operation determines the country-specific rules concerning vehicle use (for example, conditions for and limitations on delegate driving, mission order procedures, country-specific security regulations, etc).

The fleet manager or delegated authority must ensure that all vehicle users are aware of Federation procedures and country-specific rules, as well as local driving regulations and conditions.

All drivers, including delegates, must have a valid ==driver authorisation form==, signed by the head of operation and the fleet manager, before they are permitted to drive a Federation vehicle. The authorisation must specify the types of vehicles permitted and any limitations on their use.

Driver authorisations granted to delegates should specify the precise conditions under which the delegate is authorised to drive a Federation vehicle. In order that that local drivers are adequately informed of their obligations and responsibilities, both the driver authorisation and driver rules and regulations forms should be translated into the local language(s), as well as the operating language of the operation. Drivers should sign the version that is appropriate to their language.

All drivers, including delegates, must undertake a test of driving ability in their country of station or deployment.

The test will be conducted by the organisation with security lead (IFRC, ICRC or HNS). Upon completion of the test, a driving test report must be issued and added to their file. Where the driving test report expresses concerns over the ability to drive in the relevant context and conditions, the ability to drive cannot be granted, but a training course can be recommended.

Note: Passengers are restricted to National Society personnel (volunteers and staff), IFRC and ICRC staff. Members of UN agencies and other NGOs are permitted as passengers, as long as travel is within the scope of the Movement's activities. Transporting other passengers or cargo is not allowed, except with previous authorisation from the IFRC country representative or staff in charge of managing local security (for example, programme manager, ops lead, etc).

5.5.7 BRC safety training pathway

Refer to Section 2.12.4.

5.5.8 Planning for usage

A well-sized fleet should aim for maximum usage, with minimum "idle" time and maximum availability for requests, with minimum service interruption or "down-time".

5.5.8.1 Requesting a vehicle and cost recharge

To ensure vehicles are consistently available and sufficient for an operation's needs, with a minimum number of vehicles underused, a request system that is as simple as possible and as complex as necessary will be helpful.

There are multiple ways in which users can request vehicles:

REQUESTING VEHICLES - SYSTEMS		
VEHICLE WHITEBOARD	**VEHICLE REQUEST FORM**	**CARGO TRANSPORT REQUEST FORM**
Used on a daily basis, listing all available vehicles. Requestors write their name and department on the whiteboard, with trip details (destination, departure time, number of passengers, estimated duration). Vehicle requests should ideally be recorded at the end of the week for the next week, with an agreed level of flexibility for unforeseen circumstances	Submitted to the fleet manager or dispatcher within an agreed timeframe before the vehicle is needed	For the transportation of goods within an authorised area. If the transport request is to locations outside of the authorised area, it should be accompanied by a mission order

These methods are applicable to cases where vehicles are needed for local movements on a single day. Longer trips outside of the operating area or multiple-day trips must typically be approved through a field trip form or mission order, which requires sign-off from line manager, fleet manager and potentially the security manager (depending on context).

Vehicles are usually managed as a pool by the logistics department. Other departments can request to use vehicles, usually on a daily basis, and their usage can be recharged to the requestor through the pool management system.

Vehicles can also be fully allocated to a specific budget, with all costs related to them, including driver, fuel, maintenance and insurance, charged to that budget.

> Logistics usually have budget to cover fleet maintenance costs, but unusual maintenance services can be charged to requesting departments as applicable.

5.5.8.2 Fleet productivity: utilisation and performance

In order to review the size of the fleet, monitor usage and report on fleet performance, it is recommended to track productivity in different dimensions.

Fleet performance can be measured looking at:
- Utilisation: resource used (number of vehicles used over period) divided by the available resource (total number of vehicles available over the period). Expressed as a percentage

$$\frac{number\ of\ vehicles\ used\ over\ the\ period}{total\ number\ of\ vehicles\ available\ over\ the\ period} = fleet\ utilisation\ \%$$

- Performance: actual tonnage (or passengers) moved divided by total tonnage (or passenger space) available in a period. Express as a percentage

$$\frac{tons\ transported\ over\ the\ period}{total\ tons\ transport\ availability\ over\ the\ period} = fleet\ performance\ \%$$

Vehicles' performance can be measured looking at:
- Utilisation: number of days/hours used divided by the total number of days/hours in a period. Expressed as a percentage.

$$\frac{number\ of\ days\ or\ hours\ the\ vehicle\ has\ been\ used\ over\ the\ period}{total\ number\ of\ hours\ or\ days\ in\ the\ period}$$
$$= vehicle\ utilisation\ \%$$

- Performance: number of days available for used/total number of days in a period. Express as a percentage.

$$\frac{number\ of\ days\ in\ the\ period\ the\ vehicle\ has\ been\ available}{tototal\ number\ of\ days\ in\ the\ period}$$
$$= vehicle\ performance\ \%$$

> Where the vehicle's performance is <80%, the vehicle is not performing well enough and should either be replaced or given a revision.

- <u>Downtime</u>: days that a given vehicle is not available for operations, due to planned or unplanned maintenance (ideally the split between planned and unplanned should be detailed)

Where no logistics staff are available, country representatives/delegates should seek support from HNS, IFRC or UKO logistics coordinators to compile the fleet performance data.

For more details on reporting for fleet, see Section 5.6.6.

Fleet Usage

- Vehicles must be registered in country and insured
- Agree terms of ownership with HNS or IFRC, as it is unlikely that a PNS can register and insure vehicles in their own name
- Use vehicle logbooks to monitor the usage of fleet and generators
- Stay safe. 50 per cent of security incidents in humanitarian operations occur on the roads
- Install generators safely
- Organise vehicle convoys where relevant, and ensure convoy procedure is understood and respected
- Have a robust planning and monitoring system in place

5.6 Managing fleet

5.6.1 Sourcing fuel and maintenance services (in-house or outsourcing)

5.6.1.1 Sourcing fuel

The way fuel is purchased for operations will vary widely. In certain contexts, it is widely available through standard commercial services such as filling stations, but in other contexts it is less widely available and is distributed through local traders and networks.

5.6.1.1.1 Procurement of fuel

Like any other commodity or service, fuel must be purchased following the applicable procurement, fraud and corruption and counter-terrorism policies. However, due to the importance of fuel to the success of the operation, it usually requires more control than the procurement of other items or services after it is purchased. Both the quantity and the quality of the available fuel must be monitored closely.

Where possible, at least one contract should be in place to ensure the supply of fuel – multiple contracts will mitigate the risk of shortage.

The contract(s) should detail the expected quality of the fuel provided, and supplied fuel should be checked regularly against agreed quality standards (by an independent laboratory if necessary).

Where contracted suppliers cannot supply fuel, alternative options can be explored, in which case the purchase must follow the applicable procurement policy. For example, where a supplier has been contracted but is facing a one-week shortage, the fuel for that week must be purchased through the applicable procurement process, determined by the cost of the estimated total amount required for the week.

Fuel suppliers' performance must be closely managed, and periodic contract reviews are recommended due to the criticality of fuel availability.

5.6.1.1.2 Fuel purchasing cards

In urban contexts, fuel purchasing cards are widely available. These cards are usually connected to an online platform, through which the fleet manager can track consumption.

Fuel cards can be pre- or post-paid, and they allow drivers to refill vehicles without having to request cash. Fuel refills must still be recorded in the logbook, and receipts must be kept for traceability and reconciliation purposes.

5.6.1.1.3 Fuel purchase vouchers

Where filling stations cannot provide purchasing cards, the IFRC recommends the use of fuel purchase vouchers.

Each vehicle should have a purchase voucher booklet in which drivers can record fuel purchases. Each voucher must have a unique number, which should be recorded by the fleet manager.

The fuel purchase vouchers must be signed by the driver, the filling station attendant and the fleet manager, with copies kept by all parties.

At the end of the month (or of a pre-defined period), the filling station can issue an invoice against all fuel purchase vouchers in the period. The fleet manager must then reconcile the vouchers against his own records (including the vehicle logbooks).

5.6.1.1.4 Fuel deliveries to point of use

In other contexts, fuel may need to be delivered periodically to one or several operating sites.

In this case, the delivery site must ensure that storage facilities are available to safely stock and issue fuel (an isolated, locked storage area only for fuel, equipped with fire extinguishers and sandbags, permanently staffed and with ideally only one staff member issuing and reporting on fuel distribution, and proper fuel issuing equipment).

Having the right refuelling system, with fuel vouchers and proper approval scheme in place under the supervision of the fleet manager, is critical in this context, to ensure consistent consumption control (see Section 5.6.3).

Where fuel is delivered directly from a supplier, they should provide a set of documents including certificate of quality, certificate of origin (especially if fuel is imported) and delivery note.

Fuel should be sampled and tested, ideally on site. Fuel testing does not require sophisticated equipment; a used fuel filter and a tube of Kolor Kut water finding paste are often enough to detect dirty or water-cut fuel. Kolor Kut paste should be smeared on a dipping stick, which is then plunged into the fuel container for two seconds. If the colour of the paste changes, the fuel contains water. Other brands of water-finding paste work in similar ways.

5.6.1.2 Sourcing maintenance services

Depending on the context of the operation, maintenance services can be provided in different ways. Each presents advantages and risks:

Sourcing	Details	Advantages	Risks
Own capacity and facilities	The NS operating the vehicles employs personnel dedicated to the maintenance of the operation's vehicles and runs facilities to manage the maintenance needs of all vehicles.	Strict quality control of service and parts. Ease of access and ability to prioritise.	Requires the procurement of parts. Difficult to scale up and down when activity increases or decreases.
Another organisation's capacity and facilities	The HNS, IFRC, ICRC or another humanitarian actor employ personnel dedicated to the maintenance of the operation's vehicles and facilities to service them. An agreement is in place to access these services	Quality control standards on servicing and parts provided. No direct staff management. Services usually provided at advantageous rates	Capacity of the organisation providing the service may be overwhelmed. Needs alternative plan in case the organisation closes their branch down.
Outsourced commercial services	A licensed local business specialises in vehicle maintenance and runs their own facilities, with access to spare parts	Commercial supplier/customer relationship. No need to plan for internal resources (apart from budget). Stable supply of labour and parts.	No visibility of quality control, in particular with spare parts. No control of service lead time (unless contractually agreed).

Where maintenance services are outsourced, they should be sourced through the appropriate procurement process. Ideally, a contract or framework agreement should be in place with at least one service provider, detailing a service level agreement and performance management principles.

Beyond the standard selection criteria, the following additional criteria should be considered when selecting a vehicle maintenance service provider:

- Facilities inspection
- Reference checking with other organisations
- Cashflow analysis. Can the service provider procure the necessary parts upfront, or will they require advance payment when new parts are needed?
- Evaluation of the service provider's parts supplier base. Are all parts used genuine?

5.6.2 Vehicle and driver schedules, generator running hours

5.6.2.1. Vehicles and driver schedules

Office hours drivers must work in accordance with local legislation regarding working hours and length of duty. Drivers should ideally be assigned to a single vehicle, to ensure traceability and accountability of resources.

In locations where no personal or public means of transportation are available, a duty driver system can be implemented to provide transport services outside of working hours, within a designated area. This ensures that delegates have means of transportation outside working hours.

Duty drivers should remain on standby for designated shifts in evenings and at weekends. IFRC recommends:

- Minimum of four drivers available (each covering a six-hour shift, for 24-hour availability – consider security procedure for evacuation in specific contexts
- Minimum of one vehicle available for each duty driver
- Means of communication must be available for the duty vehicle/driver (either a VHF handset or mobile phone, depending on local phone coverage).

Duty driver allocation should be based on a rotation system and in line with local labour law. This typically means that drivers should not be on duty for more than 24 hours and should be allowed a rest day after a shift before they resume normal working hours.

Drivers on standby duty should accrue time off in lieu (TOIL) or another form of time off, to compensate for the standby shift. Decisions on implementing and running a standby driver duty rotation sits with the head of operation but managing and communicating the rota with the delegates is the responsibility of the fleet manager.

Driver shifts during normal working hours should be planned in line with local legislation, so drivers do not accrue TOIL but only regular leave.

5.6.2.2 Generator running hours

Just as logbooks track usage of vehicles, a generator's running hours must be monitored, to ensure regular maintenance and follow-up regarding consumption.

A generator logbook should be available for each generator in use, tracking the number of hours it is used, maintenance services and refuelling (time, date and litres).

In operations that rely on generators to provide more than 50% of the electricity requirements, it is recommended that the use of generators is alternated either with batteries (which can be charged by the generator when in use) or with spare generators, to limit wear and tear, allow for rest periods and guarantee back-up in case of servicing or breakdown.

5.6.3 Daily checks on vehicles and generators

5.6.3.1 Daily checks on vehicles

With all vehicles, it is usually the responsibility of the driver to carry out the necessary checks. Ideally, a daily inspection checklist should be available for the driver to fill out, but verbal follow-up or a note on the vehicle logbook can be sufficient in smaller operations.

The minimum daily inspection should be based on the FLOWER technique:

F	**Fuel** Fuel level must be checked
L	**Lights** All Lights to be checked
O	**Oil** Check oil level when engine is still cold and vehicle is parked on a flat surface
W	**Water** Check the coolant level and top it up with coolant or water if level is low. Do not mix anti-freezes. Check the screen wash reservoir
E	**Electrics** Check the battery is safe and secured in its place
R	**Rubber** Check tyre pressure (finding the recommended pressure either in the vehicle manual or on the frame of the driver's door), uneven wear, side wall damage and tread depth (check the tread indicator on the tyres)

A more comprehensive vehicle inspection includes:

☐ Fuel level
☐ Oil level
☐ Tyre pressure
☐ Tyre defects
☐ Brakes
☐ Hoses – for sign of wear
☐ Lights, indicators and reflectors
☐ Horn

☐ Windscreen washers and wipers
☐ Battery acid level
☐ Mirrors
☐ Steering
☐ Security of body
☐ Security of load

5.6.3.2 Daily inspections on generators

Like vehicles, generators should be inspected daily and any defects should be flagged as early as possible.

Daily generator checks (before starting the engine):

- ☐ Running hours from the previous day have been logged
- ☐ Generator is clean
- ☐ Fuel tank is at least 50 per cent full
- ☐ Look for any fuel leaks
- ☐ Check fuel cap is screwed on
- ☐ Check engine oil level
- ☐ Check engine oil condition
- ☐ Look for any radiator leaks
- ☐ Check radiator coolant level
- ☐ If the generator charges batteries, check they are well connected, that the charger works and the battery water level
- ☐ Look for leaks underneath the generator
- ☐ Check the exhaust system is not obstructed
- ☐ Check that the auto-start works
- ☐ Check all tools and equipment (including first aid kit) are present and in good condition

5.6.4 Following fuel consumption

5.6.4.1 Taking stock of fuel

It can be challenging to accurately calibrate a dipstick, but it can be estimated by calculation and experts are usually available locally to support.

As the volume of fuel fluctuates depending on ambient temperature, the use of metric tons (MT) is recommended as the unit of measure for ordering, receiving and taking stock of fuel (fuel issued can be recorded in litres but quantities should be included in metric tons for stock taking).

To avoid discrepancies, use a calibrated, non-metallic dipstick.

For fuel stock takes, a temperature correction of fuel volume calculation table exists to advise how to adjust the fuel quantity according to temperature.

Where the fuel is managed by the organisation at the operation's level, fuel stock reconciliation must be made across fuel requests, vehicle logbooks, fuel deliveries and by a physical count. Where fuel is purchased directly from filling stations, no stock take is required, but invoices must be reconciled against logbooks and receipts.

5.6.4.2 Monitoring fuel consumption

A variety of tools is available to monitor fuel consumption:
- Where fuel cards are in use, reports can be provided by the supplier
- Fuel request vouchers
- Logbooks
- FleetWave system (where available)

To calculate fuel consumption, use the below formulas:

For vehicles:

$$consumption = \frac{litres\ consumed}{distance\ covered\ (km)}\ x\ 100 = XXX\ litres\ per\ 100\ km$$

For generators:

$$consumption = \frac{litres\ consumed}{hours\ operated} = XXX\ litres\ per\ hour$$

Generally accepted consumption rates are as below:

Type	Engine	Standard consumption	Variation tolerance
Motorbike	Four-stroke	4l/100km	+/- 5%
Motorbike	Two-stroke	5l/100km	+/- 5%
Car	Petrol	10l/100km	+/- 20%
Car	Diesel	7.5l/100km	+/- 10%
Light 4x4	Diesel	12l/100km	+/- 10%
Heavy 4x4	Diesel	14l/100km	+/- 20%
4x4 truck	Diesel	30l/100km	+/- 10%
Truck	Diesel	37l/100km	+/- 20%
Generator	5KVA	2l/hour	*Generator*
Generator	15KVA	4l/hour	*consumption*
Generator	30KVA	7l/hour	*largely depends*
Generator	60KVA	14l/hour	*on load*

Variations beyond the above tolerance should be double-checked and investigated if confirmed, with possible follow-up actions including the further testing of fuel quality, the checking of vehicles for leakages or investigation into the possible theft of fuel.
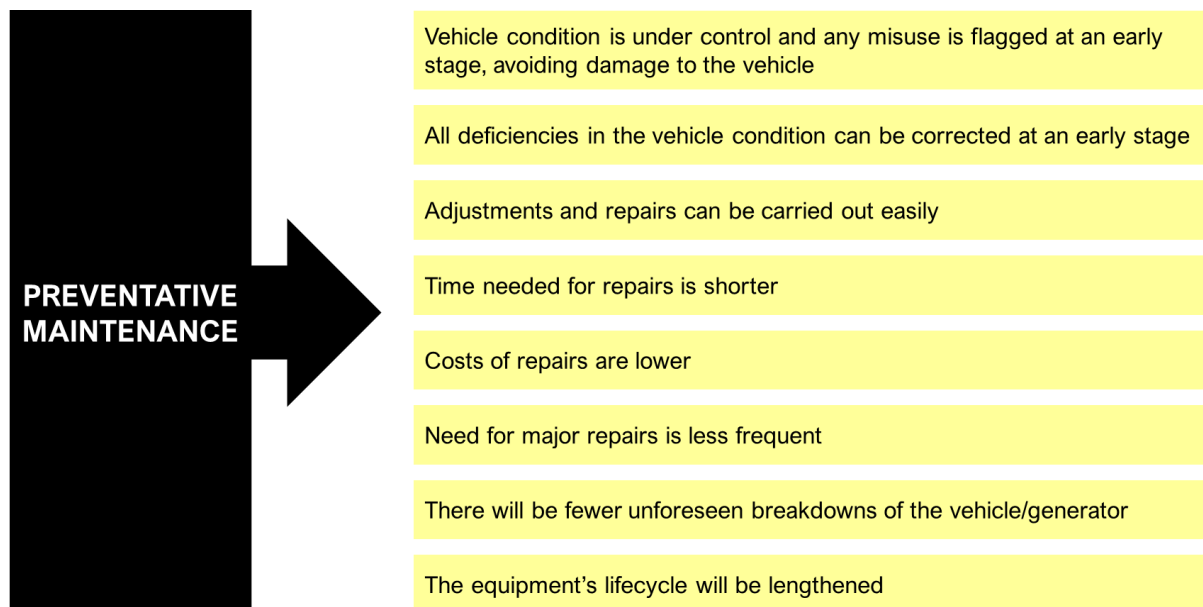
UKO-based logistics coordinators or regional fleet managers can support the analysis of variances if needed.

5.6.5 Maintenance planning and tracking

Ensuring the proper maintenance of fleet reduces the risk of accidents, and of damage or loss of goods handled by logistics and delays to the delivery of items.

5.6.5.1 The importance of preventative maintenance

Preventative maintenance encompasses all actions taken to prevent vehicle failure. Regular maintenance where vehicle and generator parts are lubricated, adjusted, tightened or otherwise checked will prevent most of the common mechanical failures. Preventative maintenance guarantees staff safety, while also saving time and money.

PREVENTATIVE MAINTENANCE →

Vehicle condition is under control and any misuse is flagged at an early stage, avoiding damage to the vehicle

All deficiencies in the vehicle condition can be corrected at an early stage

Adjustments and repairs can be carried out easily

Time needed for repairs is shorter

Costs of repairs are lower

Need for major repairs is less frequent

There will be fewer unforeseen breakdowns of the vehicle/generator

The equipment's lifecycle will be lengthened

5.6.5.2 Planned maintenance

The fleet delegate or manager must ensure that all vehicles and equipment are maintained and serviced according to instructions in their user manuals.

All vehicles should carry and maintain up-to-date records of maintenance, including a maintenance schedule. Drivers or other users of fleet must inform the fleet manager of planned maintenance on the equipment they are responsible for.

The IFRC fleet management system allows the tracking of maintenance history and planning. Where FleetWave is not in use, this information can be kept in the vehicle file or on a vehicle follow-up spreadsheet.

5.6.5.3 Service schedule

Below is an indicative table of recommended maintenance milestones. Local regulations may require a stricter maintenance schedule and it is not uncommon for governments to require maintenance records to be kept on file for a number of years.

Light vehicles	Every 5,000km (10,000km maximum) or 18 months
Heavy goods vehicles	Every 15,000km or 18 months
Motorcycles	Every 10,000km or 12 months
Handling equipment	Every 250 hours
Generators	Maintenance (including oil and filter change) every 100 hours

Engine oil should be replaced every 10,000km, depending on the quality of lubricants in use.

Planned maintenance should ensure that unplanned maintenance is required as rarely as possible. However, where a malfunction is reported by a driver or other vehicle user, usually following usage or a daily check, unplanned maintenance may sometimes be required immediately, leaving the vehicle unavailable for the duration of the service.

Defects or malfunctions should be reported through a <mark>maintenance request form</mark>, signed off by the requestor, the fleet manager and the budget holder (usually the logistics delegate or programme manager) and logged in the vehicle file or on a follow-up spreadsheet.

The logistics or fleet management department will process the maintenance request and charge the incurred costs appropriately.

Where workshop facilities are available, some of the maintenance work can be done internally, while other may be have to be done through external facilities.

Where no logistics staff is available, country representatives/delegates should seek support from HNS/IFRC or UKO logistics coordinators to advise on maintenance requests and cost recharges.

5.6.6 Incident reporting

All incidents involving BRC staff must be reported – refer to the [BRC incident reporting procedure](#) for further information.

Where delegates are seconded into another organisation such as the IFRC or the ICRC, or where they are working under another organisation such as a HNS, this organisation's incident reporting procedure must be followed in parallel to that of the BRC.

5.6.7 Reporting on fleet

Managing and reporting on fleet performance is an important component of operations management. Where it is in use, FleetWave can produce monthly performance reports, but this requires disciplined submission of source data. For more information about using FleetWave, contact the UKO-based logistics team or the global logistics services team in Dubai.

For information on calculating basic fleet performance, see Sections 5.5.5.2 and 5.6.3.2.

Other important indicators of fleet performance may include:

- Environmental impact measurement
- Total cost of ownership
- Benchmarking against other fleet options (VRP, rentals, etc)

The Fleet Forum (https://knowledge.fleetforum.org/) has developed performance-measuring tools that cover these indicators, among others. The group has also proposed a <mark>fleet management reporting format</mark>, which supports monthly data collection and analysis.

Fleet performance can be reported as part of the <mark>logistics monthly report</mark>, or separately where the fleet size is more than 30 vehicles and where a fleet manager oversees a dedicated fleet department or team.

Fleet Management

- Define an appropriate sourcing and purchasing plan for fuel and maintenance services
- Plan drivers' schedules and generator management
- Run periodic checks of vehicles and generators
- Monitor fuel consumption closely
- Plan and track vehicle and generator maintenance
- Arrange preventative maintenance where possible
- Report all incidents through the appropriate mechanism

5.7 Project closure: fleet disposal options

5.7.1. Handover, disposal, sale, donation

For details on the asset disposal process, refer to Section 4.6.2.

VRP-owned vehicles may only be disposed of following approval and instruction from the regional fleet coordinator or IFRC fleet base. When the vehicle's disposal has been approved, the IFRC fleet management team will provide an asset disposal form.

Additional requirements when disposing of vehicles may include:

- Donor requirements, including the approval to dispose of the vehicle, generator or handling equipment
- All radio equipment and visibility items (stickers, paintings and other markings) must be removed from the vehicle prior to its disposal
- License plates must be removed from the vehicle, and its buyer or receiver must source new plates by following the registration process
- No vehicle may be sold to military, paramilitary or state-affiliated organisations
- The disposal of vehicles by sale, donation or scrapping is usually strictly controlled by local authorities, and the procedures to follow will vary depending on the importation status of the vehicle (see Section 5.5.2 for more details).
- A vehicle handover form and a certificate of de-registration must be completed, in addition to a transferral or cancellation of the insurance policy (and a donation certificate where applicable).
- All documentation relating to the donation or sale of the vehicle must be kept in its file.

Vehicles that have reached their end of life in IFRC criteria should not be sold or donated to a National Society.

Type of vehicle	Distance to end of life	Age to end of life
Light vehicles	More than 125,000km	5 years
Heavy goods vehicles	More than 300,000km	No age limit

5.7.2 Vehicle disposal checklist

Where the vehicles are donated, the donation process detailed in Section 4.6.2.1 should be followed.

Where the asset disposal form suggests the sale of vehicles, step-by-step guidelines for the sale of vehicles by competitive bidding should be followed, using the templates provided for publication of the invitation to bid, for the provision of bids and for the contract of sale and bill of sale.

Fleet Disposal and Project Closure

- When sourcing fleet, consider options for the vehicles' disposal
- Refer to Section 4.6.2 for more details on asset disposal
- Vehicles can be sold, auctioned or donated when no longer required in an operation
- Strict rules apply to vehicle sales and auctions

5.8 Fleet audit trail

To be kept in the vehicle file		Vehicle purchased through HQ	Vehicle purchased locally
Requesting/delivering	Copy of the requisition	X	X
	Offers received from suppliers		X
	Selection table		X
	Counter-terrorism and due diligence checks of suppliers, as required	X	X
	Approval from UKO logistics coordinator	X	X
	Copy of invoice	X	X
	Copy of GRN	X	X
	Proof of insurance	X	X
Import/export	Copies of import documents	X	X
	Copies of export documents	X	X
Registration plates	Registration request	X	X
	Owner's certificate		X
Insurance	Copy of insurance request	X	X

To be kept in the vehicle file		Vehicle purchased through HQ	Vehicle purchased locally
	Copy of local insurance contract	X	X
	Copies of correspondence with global insurer		X
Accident/theft	Incident report	X	X
	Correspondence with local insurer	X	X
	Copy of official accident report (including police report, where relevant)	X	X
Maintenance and servicing	Maintenance and servicing requests	X	X
	Maintenance and servicing reports	X	X
Disposal	Copy of approval to donate/dispose	X	X
	When sold, copy of valuation document and sale announcement	X	X
	Purchase offers received	X	X
	Bill of sale	X	X
	Copy of tax duty receipt	X	X
	Copy of signed donation certificate or vehicle handover forms	X	X
	Copy of transfer out of country (if applicable)	X	X
Management info	Index card with basic information on vehicle: assigned vehicle ID number, registration number, key number, make, model, specification, etc	X	X
	Copies of FleetWave or other fleet monitoring reports (as applicable)	X	X
	Copies of previous logbooks (replaced when full)	X	X

Beyond the vehicle files, the below documents must be kept in the fleet files:

- Copies of all mission orders
- Copies of fuel procurement contracts or purchase receipts
- Drivers' files, containing driving licenses, training records, driver authorisation forms, signed rules and regulations forms, disciplinary procedure records.

5.9   BRC Domestic fleet management systems and procedures

All the processes detailed above relate to the management of BRC's international fleet.

For policies applicable to vehicles in use in the UK, refer to the page on RedRoom dedicated to fleet management (type "information about our vehicles" in Redroom's search bar).

The British Red Cross also has a <mark>maintenance of British Red Cross vehicles policy</mark> that applies to BRC vehicles being driven in the UK.