Road Transport

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Road transport is by far the most ubiquitous methods of moving cargo globally. Road transport also happens to be something that individuals or shippers can easily managed directly without having to go through a broker or third party. Trucks and vehicles can frequently be sourced locally, even in the early days of an emergency response, though quality of vehicles and roads may vary.

Common Terms in Road Transport

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translo\nde\ning</td>
<td>The act of loading goods directly from one truck to another truck, frequently done at border crossing points or points at which ownership changes hands. Can be used to speed up delivery to final destination.</td>
</tr>
<tr>
<td>Tractor</td>
<td>A powered vehicle with a heavy-duty engine specifically designed to pull large loads on trailers. Tractors usually run on diesel fuel, have multi-ratio gears, and come in the form of a large cab.</td>
</tr>
<tr>
<td>Trailer</td>
<td>An unpowered, multi axle platform that is pulled by a tractor. Trailers can have many configurations, including being flat surfaces, enclosed, refrigerated, two part (close-coupled) or some variation of therein.</td>
</tr>
<tr>
<td>Semi-truck / Tractor</td>
<td>The combination of a tractor coupled with a trailer, joined with an articulated joint (drawbar) that enables enhanced maneuverability.</td>
</tr>
<tr>
<td>Single Unit Truck /</td>
<td>A truck where the cab and the truck bed section are permanently connected, and joints are not articulating. The wheels under the bed section can be powered from the main engine giving all-wheel drive and additional grip and handling on the road.</td>
</tr>
<tr>
<td>Straight Truck</td>
<td></td>
</tr>
<tr>
<td>Axle</td>
<td>A rotating shaft that connects wheels on either side of the base of a vehicle. Trucks are often described by the number of axles they have. A higher number of axles may be required for heavier loads or unimproved/off road conditions.</td>
</tr>
<tr>
<td>Shunting</td>
<td>Sometimes referred to as &quot;shifting&quot;. The act of transporting cargo over short-haul distances between near-by and often predefined locations, such as between a sea port and a warehouse, or within a defined property. Shunting vehicles may require less special equipment and may incur less wear and tear, and often operate in urban environments. Some shunting operations use specially designed tractors to move trailers on to facilitate quick parking, unloading, loading, and staging for departure.</td>
</tr>
<tr>
<td>Long Haul</td>
<td>The act of moving cargo over long distances, comprising days or weeks and possibly crossing international boundaries. Long haul trucking may require cooking and sleeping amenities for drivers, repair equipment on board at all times, long range communication equipment, and may require off road capabilities.</td>
</tr>
<tr>
<td>Lift Gate</td>
<td>A self-powered platform connected to the rear of a truck that will lift pallets/heavy cargo without the need for manual loading. Sometimes also called a &quot;lifting platform.&quot;</td>
</tr>
<tr>
<td>Intermodal</td>
<td>The act of switching between two modes of transport. In trucking, intermodal frequently refers to the use of shipping containers that can be loaded between different vessels and vehicles as a single unit without having to offload cargo.</td>
</tr>
<tr>
<td>Porter</td>
<td>Human, hand loading and offloading. Porters are heavily used in humanitarian contexts.</td>
</tr>
<tr>
<td>Bonded Trucking</td>
<td>A truck that is hauling cargo that is yet uncleared through customs into a country. Bonded trucking is highly regulated and comes with additional security precautions that must be complied with. Bonded trucking is typically for short-haul activities, such as moving cargo from an airport to an off side bonded storage facility, but also commonly used while in transit across multiple countries.</td>
</tr>
</tbody>
</table>
Road Transport Arrangements

Self-managed Owned or Rented Vehicles

Agencies running operations of any length in any context may wish to buy, rent or lease vehicles that are solely dedicated to and under the management of the agency itself. If an organisation decides to acquire its own vehicles, there are a number of areas to be considered, such as the type of vehicle and body type. The nature of the emergency response operation may also require that mechanical handling aids need to be incorporated into the overall vehicle specification to facilitate loading and unloading. Rented and owned vehicles can be sourced locally, or they can be imported into the response operation at the behest of the organisation. Bringing in outside vehicles might be the best way of finding the best or most appropriate equipment, but may take a long time to acquire and cost a large sum of money depending on the distance to delivery and the type of transport used. Vehicles brought from a different country will also need to undergo regular customs formalities.

Be aware that some countries do not allow particular models to be imported. This is due mainly due environmental or economic reasons. In some cases, countries put extremely high import and/or registration taxes to protect their manufacturing market. If agencies are looking to import a vehicle, it is of paramount importance to find out the official and practical procedures for import.

Advantages to self-managed vehicles:

- **Purpose Built** – Rented or owned vehicles can be designed, modified or built specifically to carry a particular product, such as cold chain items, which might require special handling.
- **Self Managed Drivers** – Organisations in total control over their vehicles will be able to train and supply their own drivers, which will allow for development, specialisation and quality control in case of performance issues.
- **Customisation** – Rented or owned vehicle can be outfitted with logos and visibility, and can have customs communications equipment installed and configured.
- **Quality Control** – Using a self-managed vehicle it’s much easier to ensure that the vehicle is used in an appropriate and ethical manner befitting of the agency.

Disadvantages to self-managed vehicles:

- **Time and Complexity** - Self-management of vehicles and fleets can occupy a great deal of time, and require excessive attention from management.
- **Special Knowledge** – Maintaining one or more shipping vehicles requires special skills and knowledge. Unless outside arrangements are made with third-party repair services, organisations will have to identify and contract mechanics, and manage their own supply chain of spare parts.
- **Dispatch** and **fleet management** is also its own special skill, and requires knowledgeable and trained staff for coordinating movement of multiple vehicles.
- **Costs** – the start-up and investment capital to obtain vehicles, drivers and parts can be substantial, and aid agencies limited to grant funding may not be able to cover costs all at once. Operating in many contexts will also incur substantial insurance costs as well. An owned vehicle must be managed until its property is effectively transferred to another party, including the update of property records by the local authorities. The organisation can be held accountable for any liability related to the vehicle during the ownership period.
- **Single Point of Failure** – Organisations that own or manage their own vehicles run the risk of mechanical issues or an accident completely halting use of that vehicle at any time.

Drivers are an essential component to self-managed trucking fleets, equally as important and the vehicles themselves. Even if an organisation has a perfectly maintained fleet, if they are using poor quality drivers, have drivers who are not licensed to operate in any given context, or don’t invest in training drivers, then accidents, damages, cargo loss and possibly issues with fines or law suits may occur. Agencies seeking to maintain their own vehicles and have a staff pool of drivers should ensure that the hiring practice is transparent and skills and knowledge are clearly demonstrated. When recruiting drivers, agencies might consider:

- Asking for documentation to prove authorised license to operate the vehicle in question
- Request a background check
- Ask the applicant to demonstrate their driving skill first hand in a safe location
- Have technical questions prepared
- If possible, enact a drug screening program

Third-Party Transport

Humanitarian organisations have become increasingly reliant on third-party transport providers as a method of moving cargo into and around response operations. The overall running cost of using third-party companies may be higher, but in the volatile nature of response activities, outside companies can help start operations quickly, and organisations can start or stop operations as quickly as needed without concern for what to do with large physical assets like trucks. Even if an organisation owns its vehicles, there may well be occasions when a need arises for additional capacity to meet peak activity or other short-term needs. This can be met by the use of vehicles supplied by a third-party commercial transport provider.

Third-party transport companies can usually be sourced locally within or near the emergency context, and utilising them also serves the function of putting money into the local economy and fostering local acceptance of the aid agency in question. Organisations should follow all due diligence when soliciting and selecting third-party transport companies, and follow their own internal procurement procedures wherever possible.

Advantages of third-party transport:

- **Flexibility** - Organisations can use commercial providers to meet fluctuating demand requirements
- **No Size Constraint** – Organisations that may only ship infrequently, or only ship small quantities and may not need self-managed vehicles on hand at all times. Third-party transport caters to variable loads and journeys.
- **Lower Upfront Cost** – Third-party transporters will have virtually no start-up costs, and the transporter may be able to offer a more cost-effective and a more efficient service by sharing loads with other shippers.
**Reduced Complexity** – The administration of vehicles and drivers is no longer the responsibility of the organisation, allowing the administration teams of the organisation to focus on other areas.

**Local Knowledge** - Third-party transporters or providers may have better working knowledge of country requirements, local restrictions, geography, vehicle requirements or limitations, optimised routes, sticking points and more.

**Disadvantages of third-party transport:**

- **Ethics Concerns** – Third-party transporters don't directly represent a contracting organisation, and as such may engage in activities aid agencies might find unethical, such as transporting equipment for parties to a conflict or employing child labour. Driver standards are also not controlled by the shipper, and activities such as drug use or unsafe driving may occur.
- **Additional Risk** – Though shippers may utilise additional insurance, there is always an increased risk using third-parties who may have less vested interest in the delivery of aid cargo.
- **Higher Long-term Cost** – Though start up costs may be substantially less with third-party transporters, over a long enough period of time and with enough cargo, third-party commercial transport may always be higher per kg. Organisations who are in a long-term programme and ship high volumes of cargo might encounter cheaper costs through renting or owing their own self-managed vehicles.

**Considerations for both third-party and self-managed cargo transport:**

Whether the vehicles being used are owned, hired or are managed by a third-party, it is important to ensure that all local laws relating to the licensing, insurance and regulation of vehicles are adhered to:

- Drivers have a legally obtained licence to operate the class of vehicle they are driving on public roads and highways.
- Fees are paid for specific loads such as oversized or hazardous goods.
- Vehicles should be insured to at least the minimum required by law. Different organisations will have internal policies regarding the extent to which their own vehicles should be insured
- Vehicles may also require documentation relating to the maximum permissible weights in terms of gross vehicle weight, axle weight and payload.

**Third-Party Trucking Rates**

How third-party trucking companies choose to charge for transport services depends on the country, the context, the anticipated needs of the contract, and even local norms and regulations. Common arrangements:

| Pr | De- | Defined | Pre-Route
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Many trucking providers like to develop contracts based on pre-defined routes. The contract will stipulate a pre-established rate between two locations, expressed as either the cost of the whole vehicle, or as a rate per kg. Pre-defined route based rates are good for agencies that have a known project plan with known and commonly used destinations. Soliciting tenders based on route based rates will help planners easily identify which trucking providers are more cost effective in which areas.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Ti | me- | Bound | Time-based rates might be useful in the early days of a response, especially daily leasing of trucking services. Time-bound rates may also lead to poor cost controls however - if a vehicle is delayed for whatever reason, renters of the trucking service will be obliged to pay for those days unless otherwise clearly specified in the contract. |

<table>
<thead>
<tr>
<th>Dis</th>
<th>tan</th>
<th>ce</th>
<th>Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some contracts are expressed as a rate per distance - usually kilometres - and charge renters of truck service per kg or vehicle. Distance based contracting may be similar to pre-defined routes, however it may be used when planners don't know all final destinations for delivery in advance. Planners should be careful with distance based rates - unless they have detailed knowledge of routes, they may have no way of validating actual distances covered. Planners may also want to implement a vehicle log book to track driver movements.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Chargeable Weight**

In most humanitarian contexts, the only constraints to loading a vehicle are the weight of the cargo, and if the load is oversized. There are some situations in which trucking companies may charge based on what is known as "volumetric weight." Volumetric weight can be applied when cargo is very light compared to its volume. If a humanitarian agency is leasing an entire truck the density of cargo may not be important, however in situations where an agency is being charged per kg, trucking companies may include minimum volumetric weights to help recover operating costs. Planners should assume that light, volumetric cargo may be charged at a different rate.

There is no one universal standard for volumetric weight, however a good indicator of volumetric weight might be:

\[ \text{Volumetric Weight (KG)} = \frac{(L \times W \times H)}{333} \]

**Unique Concepts to Road Transportation**

**Vehicle Selection**

It is important to be able to select the appropriate vehicle for the purpose required even if, at a later stage, it is necessary to revise this choice to reflect availability in the field. See below a description of the main body types and combinations that are available.

**Body and Size**
The overall size of the vehicle is largely tied to the load in question. There are many factors that might limit the weight of a vehicle, including local infrastructure, road conditions, local laws and even the overall quality of the vehicle itself.

Often times vehicles are referred to a weight rating, such as a twenty-tonne or forty-tonne vehicle. These tonnages referred to by the vehicle classification are specifying the maximum gross weight of the vehicle, which includes the weight of the cargo and the weight of the vehicle itself. These specific designations are important for route and transport planning, as many roads, surfaces and bridges are rated for different tonnages for a variety of structural or environmental reasons. This means that the actual weight of the cargo payload per vehicle will be moderately less, depending on the vehicle.

The actual maximum allowable payload weight per vehicle will be specified by the manufacturer, and can also be regulated by national or local regulations. The overall body and engine type of the vehicle will also impact the specific maximum payload of the vehicle. For the purposes of planning, the size to payload needs can be defined as in the table below:

<table>
<thead>
<tr>
<th>Type</th>
<th>Axles</th>
<th>Max Gross Weight (Tonnes)</th>
<th>*Estimated Payload (Tonnes)</th>
<th>Typical Total Body Length (Meters)</th>
<th>Body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Unit Truck</td>
<td>2 axles / 4 wheels</td>
<td>3.5</td>
<td>1</td>
<td>Various</td>
<td></td>
</tr>
<tr>
<td>Single Unit Truck</td>
<td>2 axles / 6 wheels</td>
<td>7.5</td>
<td>3.5</td>
<td>Various</td>
<td></td>
</tr>
<tr>
<td>Single Unit Truck</td>
<td>2 axles / 6 wheels</td>
<td>18.8</td>
<td>12</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Single Unit Truck</td>
<td>3 axles</td>
<td>26</td>
<td>18</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Single Unit Truck</td>
<td>4 axles</td>
<td>36</td>
<td>25</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Tractor Trailer Truck</td>
<td>3 axles</td>
<td>26</td>
<td>18</td>
<td>16.5</td>
<td></td>
</tr>
<tr>
<td>Tractor Trailer Truck</td>
<td>4 axles</td>
<td>38</td>
<td>24</td>
<td>16.5</td>
<td></td>
</tr>
<tr>
<td>Vehicle Type</td>
<td>Axles</td>
<td>Capacity</td>
<td>Payload</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------</td>
<td>----------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tractor Trailer Truck</td>
<td>5</td>
<td>40</td>
<td>24</td>
<td>16.5</td>
<td></td>
</tr>
<tr>
<td>Tractor Trailer Truck</td>
<td>6</td>
<td>41</td>
<td>27</td>
<td>16.5</td>
<td></td>
</tr>
<tr>
<td>Close Coupled Trailer</td>
<td>Various</td>
<td>40</td>
<td>26</td>
<td>18.75</td>
<td></td>
</tr>
</tbody>
</table>

*The estimated payload is the weight of goods that can be carried without exceeding the maximum gross vehicle weight. Where law does not specify a maximum gross weight or local circumstances allow, this payload may be increased. For high volume / low weight cargo, the load may reach maximum capacity before weight limits are met.*

### Generic Body Types

The desired vehicle body/trailer type will vary according to the goods or materials being carried, the terrain, the distance, and the prevailing security conditions on the ground. There are many variants of body/trailer type available. Generic body types might include:

- **Flatbed / Platform** - The simplest and cheapest body type, comprised a flat surface resting on the axles with no sides or protection. Flatbed/platform bodies provide all round access to the load, but offers little security or protection from the weather. Loads carried using the open sided flatbed/platform vehicle will need to be secured using netting/ropes, and will likely need to be covered with plastic or tarpaulin to protect against the elements. Trucks in many humanitarian contexts might use the equivalent of a flatbed truck with built up side walls – this method helps protect against items falling or being taken from the interior of the load, but will still require covering with some form of tarp.

- **Box truck / Van body** – A truck body with hard and rigid sides that enclose the platform completely. This body type reduces the payload of the vehicle due to the fact the physical structure adds weight, but provides protection for a perishable product and added security. Construction of the external body will depend upon the needs for insulation, waterproofing or strength. Access is usually provided by a rear door. Sometimes a door will be built into one, or both, of the body sides for special access. Box/van trucks are also ideal for special needs situations, such as refrigerated loads.

- **Curtain Side / Drop Side Bodies** - Curtain sided / drop side bodies overcome the disadvantages of access; the full bed can be exposed by either pulling back a curtain or dropping the side of cargo space. This improves the speed of loading as well as unloading. Advantages of load restraint and weather protection are maintained, while body weight might less than the box body. Curtain sided / drop sided bodies are less secure however, as contents are easier to access and cannot always be locked.
Tankers - Designed to carry powders or liquids, usually shaped in a way to prevent the vehicle from tipping over due to shifting weight. Tankers require a pumping mechanism and hoses to discharge the load, and some tankers have pumps built right into the back.

Bulk Carriers - Built similar box bodies, only without the roof. Bulk carriers are useful for large loads of loose goods that don’t require typical manual loading, such as grains, gravel, or even fruits. Bulk carriers might have a mechanical tipping mechanism built right in, otherwise offloading bulk items may be done by hand and very time consuming. Bulk carriers are typically covered with tarp.

Double/Close-Coupled Trailer – a tractor pulling more than one trailer, linked like a chain. A double trailer configuration adds more weight to the load as more axles and connections are required, but adds increased manoeuvrability.

Vehicle Manoeuvring

Trucks in all of their forms are by their nature difficult to manoeuvre, having special difficulty turning around and backing up. Aid agencies planning cargo operations using trucks must keep the turning and parking needs of vehicles in mind for planning purposes.

When contracting or purchasing trucks for consistent use in or around warehouses, the available parking, loading/offloading and turning space available for the vehicles must be taken into account. Many warehouses have enclosed fencing or walls, and may only have one single entry gate. Any vehicle used for pick-up or delivery must be able to enter the space, turn around and back up if needed. Additional consideration must be taken if multiple truck loads are to be enacted at once – will one truck inside being loaded/offloaded prevent another truck from entering, leaving or manoeuvring?

Long haul vehicle movements may be along narrow roads with no shoulders, cross roads or turn around space. An especially long truck may not be able to turn around if needed while en-route, and may need to reach its destination or next large intersection, which may be hours or days away.

At any time and regardless of the terrain, persons operating trucks must remain aware of height and width limitations of tunnels, underpasses, alleyways and enclosed parking areas, and must remain aware of weight limitations of bridges. When evaluating the size and weight limitations of vehicles, operators must also take the size and weight of cargo into account as well. A vehicle may be able to operate along a regular route under normal conditions, however an oversized cargo load may impact operating conditions.

Below is a general guide for vehicle turning radius. Planners should note that actual turning radius depends on the vehicle, and different makes and models will have some differences.

<table>
<thead>
<tr>
<th>Truck Body Type</th>
<th>Vehicle Length (m)</th>
<th>Safe Turning Radius (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Unit</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>27</td>
</tr>
<tr>
<td>Articulating Tractor</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td>Trailer</td>
<td>14</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>54</td>
</tr>
</tbody>
</table>

Diagram: Truck turning radius
Safety and Security

There are a number of safety considerations when planning and managing road cargo, these might include:

Load Securing – Ideally, cargo will be properly secured. A secured load does not just mean sealed to prevent theft, but also to prevent cargo from falling off, or worse, vehicles tipping over and causing accidents. Hard sided box trucks should be properly locked, while intermodal containers may be officially sealed depending on the delivery terms. Cargo stored on flat bed trucks or trailer should be properly tied down and covered. At minimum, cargo should not move around inside or on the truck surface as the vehicle moves, and there should be no spillage or falling items on the road causing hazards for people and other drivers. Local regulations might also govern things such as the vehicle weight, the way it is loaded and how the load is distributed.

Loader/Porter Safety - The process of loading and offloading trucks can be very dangerous. Flatbed, box or drop side vehicles may be loaded with the assistance of machinery such as forklifts or small cranes, both of which may move excessively heavy loads that can fall and injure bystanders. The area around trucks loaded with MHE should be cleared of unnecessary personnel, and any designated persons should be clearly marked with high visibility vests.

In humanitarian field settings, vehicles are often loaded by hand, frequently by low skilled labour. Porters should be able to safely and ergonomically load cargo onto vehicles:

- Porters should not carry cargo of excessive bulkiness or weight.
- If the loading point does not have a drive up loading bay, porters should be able to safely step up and down from the vehicle bed without jumping or climbing.
- Porters should only be expected to load for reasonable amounts of time, with breaks in between. Ideally loading teams would be split; 2-4 loaders on the truck and the necessary number of loaders carrying goods to and from the warehouse/depot/discharge point, reducing the need to enter or exit the vehicle.
- Porters should be monitored for unsafe behaviour or possible security concerns.

Road Conditions – In many humanitarian contexts, road conditions are extremely poor. Vehicles should be well maintained as possible, and drivers should not take unnecessary risks. Trucking on poor road conditions such as mud, loose soil or standing water can be augmented by the use of 6x6 trucks (3 axle vehicles will all wheel drive) or any vehicle with a drive shaft that powers the rear axles. Drivers should also understand the route, and have some experience navigating adverse driving conditions.

Infrastructure – In the immediate aftermath of a rapid onset emergency, or as a result of armed conflict, infrastructure such as roads and bridges may be fully or partially damaged. Routes that may have been previously accessible may be inaccessible. Third-party transport companies and hired drivers should exercise caution around damaged infrastructure.

Transporting Dangerous Goods - Vehicles transporting any amount of dangerous goods (DG) for any reason should reference guidance on the surface transport of DG in the Dangerous Goods section of this guide.

Vehicle Marking – Depending on the context, there may be national and local laws that require vehicles containing specialty items such as livestock or any form of DG items to be properly labelled and marked while on the road.
Driver Behaviour – Drivers and operators of vehicles are responsible for using a vehicle on the road with a safe and secure load. Local laws will often state that the drivers in transit have full responsibility for the safety of their load, even if they did not load it personally. Even in countries or local contexts where such laws are present but are not implemented, respected or followed, every effort must be made to ensure that the organisation’s drivers are following the regulations that have been established. Most humanitarian organisations also have their own safety and security policies that need to be followed.

In-transit Theft – The main sources of vehicle theft are from depots, from overnight parking areas and from the roadside. Theft can be committed by stealing an unattended vehicle, forcibly hi-jacking a vehicle, or bribing drivers. Drivers are central to prevention of this type of loss, and their integrity is essential. Consequently, careful recruitment and selection of drivers is critical. Training will impress upon them the need for care, and procedures to follow to avoid risk of theft. Driver identification cards can be used for added security and to avoid thieves gaining access to vehicles by misrepresentation when parked on third party premises. However, there is little to prevent deliberate collusion by drivers. Vigilance is essential and attention to any pattern of discrepancies on loads. A thief intending to steal a loaded vehicle benefits from:

- Knowledge of an attractive load.
- The opportunity to access it.
- Time to steal it and to get away before detection.
- A market for the goods.
- Limited or negligible perception of risk.

Sending Goods by Road

Road Transport Documentation

There is no universal standard to documentation used for cargo shipped by road.

Domestic truck movement - In the majority of situations in which aid agencies operate, most cargo movement on roads operates domestically, which doesn’t require international customs clearance. Domestic cargo movement can be tracked in variety of ways, but the most common is a waybill. Many third-party transporters can use their own waybills, however agencies may wish to utilise waybills in their own formats. Organisation specific waybills tend to take specific needs into account, such as accounting for metric tonnage or tracking based on batch/lot number of medication, things which may not be tracked in the waybill provided by a transport company. Shippers are encouraged to use the standard set of shipping documents for all domestic movement.

International Truck Movement – Many countries globally recognise what is called a “CMR” international waybill. The CMR was proposed and agreed upon under the United Nations CMR Convention of 1956, and subsequently adopted by the International Road Transport Union. The CMR functions similar to an Airway Bill (AWB) or Bill of Lading (BOL) in that it is a standard and uniformly recognised document for the transport of goods between two countries. Where formally recognised, CMRs are also part of the formal customs process and are asked for by customs officials, and designates roles and responsibilities of parties. The CMR does not take the place of a regular waybill – all traditional documentation may be still be required, and formal customs procedures for importation must be respected – but the CMR standardises the language for authorities to understand the nature of goods either being imported into a country, or across a country. It is important to note that the CMR is not recognised everywhere in the world, there are currently only 45 countries who recognise the CMR, consisting mostly in Europe, the Middle East and Central Asia.

Example CMR:
<table>
<thead>
<tr>
<th>Description</th>
<th>Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sacker (Name, Address, Country)</td>
<td>1</td>
</tr>
<tr>
<td>Expéditeur (Nom, Adresse, Pays)</td>
<td>2</td>
</tr>
<tr>
<td>Consignee (Name, Address, Country)</td>
<td>3</td>
</tr>
<tr>
<td>Destinataire (Nom, Adresse, Pays)</td>
<td>4</td>
</tr>
<tr>
<td>Carrier (Name, Address, Country)</td>
<td>5</td>
</tr>
<tr>
<td>Transporateur (Nom, Adresse, Pays)</td>
<td>6</td>
</tr>
<tr>
<td>Place &amp; date of taking over the goods (place, country, date)</td>
<td>7</td>
</tr>
<tr>
<td>Lieu et date de la prise en charge des marchandises (lieu, pays, date)</td>
<td>8</td>
</tr>
<tr>
<td>Place designated for delivery of goods (place, country)</td>
<td>9</td>
</tr>
<tr>
<td>Lieu prévu pour la livraison des marchandises (lieu, pays)</td>
<td>10</td>
</tr>
<tr>
<td>No. &amp; Kind of Packages: Description of Goods</td>
<td>11</td>
</tr>
<tr>
<td>Marque et Nos. No &amp; nature des colis, Designation des marchandises</td>
<td>12</td>
</tr>
<tr>
<td>Gross weight (kg)</td>
<td>13</td>
</tr>
<tr>
<td>Poids brut (kg)</td>
<td>14</td>
</tr>
<tr>
<td>Volume (m³)</td>
<td>15</td>
</tr>
<tr>
<td>Cubage (m³)</td>
<td>16</td>
</tr>
<tr>
<td>Carriage Charges, Prix de transport</td>
<td>17</td>
</tr>
<tr>
<td>Senders Instructions for Customs, etc., Instructions de l'expéditeur</td>
<td>18</td>
</tr>
<tr>
<td>Reserves, Réserves</td>
<td>19</td>
</tr>
<tr>
<td>Document attached, Documents-Annexes (optional)</td>
<td>20</td>
</tr>
<tr>
<td>Special agreements, Conventions particulières (optional)</td>
<td>21</td>
</tr>
<tr>
<td>Signature of Carrier, Signature du transporteur, Company completing this note</td>
<td>22</td>
</tr>
<tr>
<td>Société émettrice</td>
<td>23</td>
</tr>
<tr>
<td>Place and Date, Signature, Lieu et date, Signature</td>
<td>24</td>
</tr>
</tbody>
</table>
Countries who don’t currently utilise the CMR will have their own means of importing cargo, depending on national laws and regional trade arrangements. Prior to importing goods to any country of operation through road transport, shippers and consignees must investigate the import and export laws for both countries.

Unlike air and sea freight which can pass over or around countries relatively unnoticed, many international shipments using trucking will be required to pass through the territory of one or more additional countries to reach their destination. In order to facilitate this process, vehicles may have to travel with what is called a “through bill of lading.” The through bill of lading should contain the relevant information required by the countries through which the vehicle is passing. Vehicles transiting through third-countries may also be subject to enhanced scrutiny and inspection, or be required to take additional security protocols to ensure cargo does not enter the local market without undergoing customs. In some cases, banned substances will not be allowed to pass through a country’s national borders at all, even if the final destination is another country.

Occasionally, national laws and the policies of individual transport companies prohibit trucks from crossing borders all together. To mitigate this problem, many states of adopted pre-defined transshipping points at specific places along their borders. At these points, cargo can be offloaded and placed in temporary storage, or even transloaded directly to another vehicle. When this border transshipment occurs, all relevant documentation will still travel with the cargo.

Route Planning and Scheduling

Route planning is the process of planning the movement of a particular quantity of goods in vehicles of known capacity. It assumes that goods are supplied from a fixed depot or starting point and that the location of individual customers is known. It recognises that restrictions on vehicle operations do occur, due to such factors as constraints on working hours, safety and security constraints, the total length of daily travel possible and the volume that can be moved within a normal working day. An acceptable solution to the route planning and vehicle-scheduling challenge should provide optimum routes that satisfy the demands of the work load, take account of legal requirements and reflect the efficient and cost effective use of the operator’s resources.

A satisfactory solution should provide a schedule of routes that minimise either total distance or time travelled by vehicles. Route planning involves an assessing all possible routes, applying the following operational conditions:

- The number of calls to a particular delivery point in any single day is limited.
- The total vehicle travel in any day is limited and the driver's time is limited.
- Vehicles have a fixed carrying capacity.
- Whether the roads are suitable for the specific transport needs and vehicle, including road conditions, hairpin turns, and any narrow gates or physical structures.
- Volume of goods for each delivery point is known and each drop has a location for which there is an established driving time to and from the warehouse or to the next delivery point.
- The quantity of goods delivered to any drop is smaller than the vehicle’s carrying capacity and there is an established time to deliver/collect at the drop point.
- The operating hours of the delivery/offloading points are known, and constraints such as peak hours are understood.

Calculating a Route Plan

A vehicle route is scheduled by basic following steps:

- Establish the time it takes for a vehicle to travel from the origin to a delivery point, adding the time taken to offload at the delivery point, assuming the vehicle is not over capacity or operating at unsafe speeds.
- Establish geographic proximity from the first delivery point to the second (if more than one delivery), counting total time to arrive and any offloading time, also assuming the vehicle is not overloaded or travelling at unsafe speeds.
- Repeat for all desired delivery points.

Continue this set of assumptions for all delivery points needed – once the theoretical vehicle is either too full to carry all deliveries, or the vehicle cannot complete all deliveries during safe and normal hours of operation, then you have established a route plan that fully utilises the available driver's time or the vehicle capacity. Repeat this step for as many vehicles until all orders are allocated or all available vehicles are fully loaded. When calculating the driving time it is important to use an average speed relative to the vehicle type, quality and condition of the roads, and prevailing weather conditions allowing for such things as delays at junctions, hills and urban congestion. In practice, average speed will be considerably less than the maximum permitted speed for a road.

The nature of the movement can be split into two basic types:

- **Primary Movement** - Involve typically bulk movements between two specific locations. This may be between two warehouses in a network or from a port or rail-head to a warehouse.
- **Secondary Distribution** - Movements that may involve multiple deliveries within a defined area, such as a regional or local warehouse to extended delivery points.

In both cases, the emphasis is on achieving full utilisation of the resources used - filling the vehicle to capacity minimising the distance travelled and optimising the hours which the driver is being paid to work.

Cargo Configuration for Road Shipping

Whether shipping cartons or oversized bulky items, there are recognised loading and securing methods to minimise accidents and damage to cargo.
**Cartons / sacks** – when loading cartons or sacks into the bed of a truck, avoid stacking in pyramid or forming piles. Cartons and sacks should be stacked in even rows, as low to the bed of the truck as possible. Stacks should be arranged in **interlocking “brick” format** to avoid stacks from coming apart, and where possible, stacks of cartons or sacks should be secured with netting, tarp or rope, especially if the truck bed has no sides or bars.

**Bulky items** – bulky items such as timber, generators, or other large equipment should be firmly secured to bed of a truck using rope or chain of appropriate strength.
Unlike sea or air cargo transportation, humanitarian actors will almost certainly be involved with the direct loading of cargo vehicles at some point. Loading of cargo onto a truck may appear fairly straightforward, however there are several things that shippers may need to consider. Frequently, third-party transport companies and private vehicle hires may understand the loading needs of their own vehicles, but in the event agencies are self-managing loading or the third-party service does not have the capacity to manage loading, organisations may have to - and possibly be legally required to - take responsibility for securely loading vehicles.

The overall balance of the load on the bed or cargo hold of any truck varies based on the body, while the overall weight limits of each of the vehicles varies based on the vehicle itself – prior to planning a cargo load, it is strongly advised to research the type of vehicle to avoid accidents.

Single unit or conventional trucks are designed to carry 70-80% of cargo weight over the rear axle, balancing the load of the cargo against the weight of the cab.

<table>
<thead>
<tr>
<th>Cab Over Engine Truck</th>
<th>Conventional Truck</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
</tbody>
</table>

When loading cab over engine or conventional pickup trucks with heavy cargo loads, start above the rear axle with weight distributed just before the axle towards the centre of the bed. Loads pushed too close to the cab can obscure the rear view of the driver, will increase the distance required to break, and may reduce traction to the road due to uneven weight distribution. Loads pushed too far to the rear will be more unstable and can also cause problems with traction. Loads sticking far off the rear of a smaller truck should be avoided whenever possible – excessively long loads not only cause weight imbalance to the vehicle, but may be hazardous to other vehicles and passengers.

<table>
<thead>
<tr>
<th>Correct Loading</th>
<th>Incorrect Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
</tr>
</tbody>
</table>

Tractor / trailer configuration trucks are designed to keep cargo weight centred between the two axles. When loaded to a tractor weight should be evenly distributed in the centre of the bed, while trailers without a truck may be loaded with weight slightly moved towards the rear axle.

<table>
<thead>
<tr>
<th>Trailer and Tractor Trailer Truck</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5" alt="Diagram" /></td>
</tr>
</tbody>
</table>

When planning a load on a trailer, consider the “X” planning strategy – if a line is drawn between each of the wheels where they make contact with the road, where the two lines intersect to form an “X” is where the centre of gravity for any cargo load should go.
"X" configuration:

When loading all vehicle types, ensure that cargo weight is also centred in along the short edge of the bed as well. Cargo weight too far to one side or another can lead to instability in the vehicle, impacting turning or even leading to vehicles tipping over.

In all loading configurations, planners and loaders should consider:

- Always load the heaviest items at the bottom of the items stacked onto a truck bed. Top heavy loads are more likely to fall over in transit.
- Loaders should plan for weight to be evenly distributed on all four sides of a truck bed. Even if space is properly utilised, overly heavy cargo on one side of the vehicle will cause issues while in transit.

Weight in Movement

Cargo on the back of a vehicle can be heavy or bulky, and while drivers may understand the overall weight of the vehicle while stopped or at low speeds, increased speed can cause the weight of the cargo to act on the vehicle in unintended ways. Forces acting on the cargo during transport are caused by different movements made by the vehicle. The acting forces are:

- Deceleration
- Acceleration
- Centrifugal force (outward)
- Gravity
- Vibration

These forces may cause sliding, tipping and wandering. Cargo loads should always be properly secured, and vehicles should take extra caution when going around corners, going over bumps or small hills, or when starting or stopping.

Cargo Tie-Downs

Any place where a rope or chain passed over cargo and is secured to both sides of the vehicle is referred to as tie-down.

A general guide for how many tie-downs to use can be seen below:

<table>
<thead>
<tr>
<th>Number of Tie-Downs</th>
<th>Length of Load</th>
<th>Weight of Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shorter than 1.5 meters</td>
<td>Less than 500 kg</td>
</tr>
<tr>
<td>2</td>
<td>Shorter than 1.5 meters</td>
<td>Greater than 500 kg</td>
</tr>
<tr>
<td>2</td>
<td>Longer than 1.5 meters but shorter than 3 meters</td>
<td>-</td>
</tr>
</tbody>
</table>
Typical loads of cartons and basic relief supplies can be secured using nylon rope, however extremely heavy equipment such as generators or vehicle should be secured using chains. The best way to gauge the strength of a series of chain tie downs to secure a load is what is known as the “working load limit” (WLL). WLL is measured by combining the WLL of each individual chain or rope used as a tie down. As an example, if a load is secured with four chains with a WLL each of 500 kgs, the TOTAL WLL for that load is 2,000 kgs.

To properly design a WLL for transport of heavy or bulky cargo, the total WLL of all tie-downs should be at least half the weight of the load itself. As an example, if a truck is transporting a generator that weighs 3,000 kgs, the combined WLL of all the securing chains should be at least 1,500 kgs. The WLL on the tie-downs accommodates for shifts in weight as the truck turns, stops or accelerates, shifting the centre of gravity of the heavy load. A general guide to WLL per chain type can be seen below.

<table>
<thead>
<tr>
<th>Chain Size (cm)</th>
<th>Grade 30</th>
<th>Grade 43</th>
<th>Grade 70</th>
<th>Grade 80</th>
<th>Grade 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.6</td>
<td>500</td>
<td>1,100</td>
<td>1,400</td>
<td>1,500</td>
<td>1,850</td>
</tr>
<tr>
<td>0.8</td>
<td>900</td>
<td>1,800</td>
<td>2,200</td>
<td>2,100</td>
<td>2,600</td>
</tr>
<tr>
<td>0.95</td>
<td>1,200</td>
<td>2,550</td>
<td>3,000</td>
<td>3,200</td>
<td>4,000</td>
</tr>
<tr>
<td>1.1</td>
<td>1,600</td>
<td>3,200</td>
<td>3,900</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1.25</td>
<td>1,900</td>
<td>4,000</td>
<td>5,000</td>
<td>5,400</td>
<td>6,700</td>
</tr>
<tr>
<td>1.6</td>
<td>3,150</td>
<td>5,900</td>
<td>7,200</td>
<td>8,250</td>
<td>10,300</td>
</tr>
</tbody>
</table>

**Vehicle Recovery**

In the process of movement by vehicles in austere working conditions, vehicles can and will break down, become stuck, or otherwise be immobilised. Understanding they types of equipment and techniques used to recover vehicles is important to drivers and persons planning routes, while knowing the route and type of vehicle in use will help inform the type of recovery tools. Some recovery tools are extremely dangerous when in use, and should be operate only by knowledgeable persons with proper training! Some of the below recovery items are useful for recovering light vehicles only. Heavy vehicles exceeding 7-10 ton capacity may require additional special assistance.

**Scissor/Bottle Jack** – Scissor or bottle jacks are regular vehicle jacks that might be part of the standard package of tools that new cars come with. Scissor or bottle jacks are useful for changing single tires, but are really only best suited for flat, stable road conditions. Scissor /bottle jacks may not work well in mud, and can really only be used to elevate the vehicle enough to change a single tire. On non-paved roads, they may require a solid object underneath them to distribute the weight, such as a flat rock or a strong board. Scissor /Bottle jacks should only be used on the appropriate contact points to avoid causing damage to the vehicle.
High-lift Jack – High-lift jacks are far more robust than scissor/bottle jacks. They can be used to lift vehicles out of mud, or raise vehicles enough to place braces or other objects underneath them. When a vehicle is full lifted, a supporting high-lift jack can have enormous pressure on it; the jack handle if not properly secured can cause bodily harm, and the jack itself may collapse with the full weight of the elevated vehicle. High-lift jacks should only be used on the appropriate contact points to avoid causing damage to the vehicle.

Recovery Winch – Recovery winches are powered electric motors that can retract rope or metal cable. Many field level vehicles have winches permanently attached to the vehicle, usually on the front bumpers. Winches usually draw their power from the electric battery of the vehicle, and are capable of supporting the weight of the vehicle itself. Winches should only be attached to objects and anchor points that can physically support the weight of the vehicle and withstand the horizontal pressure applied by the winch. When a winch is being used, all persons should be inside a vehicle, have proper cover or be a safe distance away.

Winches are useful for pulling vehicles stuck in mud, or are otherwise immobilised on an incline. Because winches are made to support the full weight of a vehicle, the cables or ropes can be very dangerous under full pressure. Additionally, improper use of a winch may cause damage to vegetation or nearby structures. Sometimes, vehicles with winches utilise what are called “snatch blocks” or “winch blocks” – pulleys that are designed to change the direct anchor point of a winch when a clean anchor isn’t available.

Snatch Straps – Snatch straps are bands made of durable synthetic material that are designed for one vehicle to pull another vehicle. Snatch straps should be strong enough to support the weight of the vehicle being towed, with some additional tension caused by momentary velocity differences between the vehicle being towed and the vehicle pulling. Snatch straps should only be used in a slow-speed, and only in a recovery capacity. Much like the winching, snatch straps should only be in use when all persons are at a safe distance.

Other tools that may be useful for vehicle of all size include:

- Tire irons
- Full sized spare tires
- External air compressors
- First aid kits
- Jumper cables

Contracting Third-Party Transport

Recommended Terms - All Movements
If humanitarian organisations plan to solicit and contract third-party transport services, below is a general guide to terms and conditions that planners may wish to consider.

- The contracted trucking company should ensure that drivers fill in all required information on provided logbooks or activities sheets as instructed and agreed with the contracting agency.
- It is recommended that the contracted trucking company should ensure a proper and adequate vehicle inspection checklist is completed daily.
- The contracted trucking company should ensure all trucks have adequate lashing or tie down equipment, and all required handling equipment.
- The contracted trucking company should ensure that all drivers wear safety equipment present in the truck for driver use as and when required.
- It is recommended that humanitarian agencies require contracted trucking companies to use logbooks, activity sheets and vehicle inspection checklists, maintained for all drivers / equipment for quality assurance purposes. Contracting humanitarian agencies should inspect logbooks and activity sheets on a routine basis.
- Where possible, drivers should be reachable during the whole transportation time by the contracted trucking company and contracting humanitarian agency whenever needed.

**Driver Training**

- The contracted trucking company should ensure the driver used for transporting humanitarian goods is well trained, and training can be demonstrated to contracting humanitarian agencies upon request.
- The contracted transport company should ensure that the drivers used for delivering pharmaceuticals or other temperature sensitive goods are trained well and are aware of the temperature requirement of the goods being carried.
- The contracted transport company should ensure that the drivers used for delivery dangerous goods are well trained on handling and transport of dangerous items, and in compliance with national and local laws and regulations.

**Contracted Trucking Company Responsibilities**

- If any truck is subcontracted by contracted trucking company, the subcontracted vehicle is the contracted trucking company’s sole responsibility and should ensure the subcontractors comply with the conditions agreed between the humanitarian organisation & contracted trucking company.
- The contracted trucking company is responsible for ensuring that all cargo is delivered within the agreed transit time period.
- The contracted trucking company should ensure the drivers reach the correct point of delivery and the proof of delivery has to be signed and stamped by the consignee.
- The contracted trucking company should ensure to handover of cargos at point of delivery.
- The contracted trucking company should submit invoice, and receipts to the contracting humanitarian agency within the pre-defined contracted period after delivery.

**Reports and Communications**

- The contracted trucking company should clearly communicate the daily transportation requirements.
- The contracted trucking company should ensure that if drivers are not reachable, a status update report can be sent once the drivers are contacted. Update reports should be sent at a pre-defined period, established in the contract.
- The driver used for any transport should report any instance of the following within a contractually pre-defined period:
  - Accident, theft, or damage at any point during the transportation.
  - Security incidents, including checkpoints, detention, armed conflict on the road, harassment from security officials or any other security matter.
  - Physical impediments including damaged infrastructure, road closures, impassable weather conditions, or anything else that may prevent vehicle movement.
- Any additional charges billed without transport supervisor / manager awareness should not be accepted and should be removed from any invoice or 'statement of account' of the contracted trucking company.
- The contracted trucking company should promptly inform the contracting humanitarian agency via phone or email in any case of discrepancy at the destination offloading point, such as short shipment, damages, theft, temperature variances or any other problem related to delays in delivering the cargo to the point of delivery.

**Insurance and Limitations of Liabilities**

- The replacement costs of lost or damage of transported items due to negligence should be the responsibility of the contracted transport company, and all repayment terms and deadlines should be included in the contract between parties.
- The contracted trucking company should indemnify the contracting humanitarian organisation, its affiliates and its and its and their officers, and employees from and against all claims, liabilities, damages, and expenses arising out of or incidental to the performance of the services, for:
  - Any and all injuries to or death or illnesses of any person.
  - Any and all damage to or loss of property.
  - Any and all damage to or loss of humanitarian organisation's goods under the sole care, custody and control of contracted trucking company in the performance of the services.
  - Any and all breaches of applicable laws and regulations, except in cases of gross negligence or wilful misconduct of the contracting humanitarian organisation.
- It is strongly recommended that the contracted trucking company should be obliged to take out and maintain, in its own name and at its own expense insurance adequate to cover its liabilities in full force and effect at all times during the contracted transport process:
  - Liability insurance policy to cover any and all shortages, damages, pilferage, missing, misallocation or any other loss of the goods while in the contracted trucking company’s care, custody or control subject to a maximum liability of an adequate amount to compensate the contracting humanitarian agency against any loss or goods damage in accordance to the applicable local laws and regulations; whichever is higher.
  - Motor third party liability insurance, with minimum compensation limits for bodily injury, death or property damage in accordance to local applicable law and regulations.
  - All insurance policies effected by the contracted trucking company should contain the provision that they cannot not be amended, deleted or permitted to lapse without the express prior approval of the contracted company.
- Deductibles under the insurances maintained by the contracted trucking company or its subcontractor should be the responsibility of contracted trucking company’s or its subcontractor’s.
Recommended Terms - Temperature Controlled Movements / Requirements

In the case of the movement of temperature controlled goods, the following is recommended.

- Prior to loading, the trailers should be at temperature required for transport. Loading should only be initiated when the temperature reaches the set point requested by the contracting humanitarian agency.
- Trailer interiors should be clean, tidy, and free from bad odour.
- If required, contracted trucking company should ensure that the cooling units have been programmed for permanent run prior to loading per instructions.
- Contracted trucking company should ensure a copy of a valid calibration report is present in the truck.
- Contracted trucking company should ensure the driver maintains an activity sheet where temperature readings are recorded at every transition / touch point / stop point.
- Drivers should remain present at the dock area while goods are being loaded at origin and offloaded at destination.
- Drivers should ensure doors are closed immediately after loading. Doors should be barred and locked if required.
- Whenever the trailer doors have to be opened, including but not limited to loading, offloading, they should be closed immediately after-wards to avoid temperature disparities.
- In case of any customs or third party inspection, the contracted trucking company should inform contracting agency immediately, detailing door opening and closing duration and the temperature readings should be recorded on the activity sheet.
- The contracted trucking company should provide calibrated and proper functioning reefer equipment and ensure the driver checks the temperature and the reefer equipment’s running status at every stop.
- In case of irregularity / temperature the contracted trucking company should inform the contracting humanitarian agency immediately.
- The contracted trucking company should make sure the drivers do not remove any temperature monitors / data recorders once they are placed inside the trailer until the truck reaches the point of delivery.
- The contracted trucking company has to ensure temperature monitors / data recorders are to be brought back after delivery.

Temperature Variances / Deviations

- In case of deviations from the terms and conditions contained in this agreement/contract the driver should notify the contracted trucking company, who should communicate this with the contracting humanitarian agency immediately.
- The contracted trucking company should make sure an investigation is done in case of a complaint / temperature variation issue is raised by the contracting humanitarian agency with regards to the temperature variances.
- In any case of claim/complaints the contracted trucking company and contracting humanitarian agency will study the case, should provide the corrective and preventive actions and then proceed with the claim process and procedures.

Maintenance and Calibration

- The contracted trucking company should ensure the reefer system used for transporting temperature controlled goods should undergo regular preventive maintenance.
- The contracted trucking company should ensure the reefer trucks used are calibrated annually and should be certified.
- Contracted trucking company should provide the contracting humanitarian agency with the records of truck maintenance and calibration certificates upon request.

Organising Humanitarian Convoys

In the course of humanitarian operations, humanitarian aid agencies may need to organise convoys for the proper delivery of relief items. The need to organise a convoy may be very contextually dependent - in well developed markets with high degrees of road safety and predictability, there may be no reason to use convoys at all. The use of convoys is usually based upon the insecurity of the operating environment, the uncertainty of the road conditions, the absence of persistent communications along the route, the value of the cargo, or any combination therein. General guidelines for organising convoys may be as follows:

Operational Basics

- Though the decision is ultimately up to each humanitarian organisation’s management, it is strongly advisable that vehicles should not be part of military convoys, or even civilian humanitarian convoys with armed escorts.
- Radio/telephone/communications contact should be kept between at least the vehicle at the back of the convoy and the leader.
- Where possible, vehicles should carry communications equipment capable of reaching a location or focal point in a different location.
- Planned convoy dates and contents should not be shared widely, or with unauthorised parties.
- Local communities, police, military or governments may have procedures for organising convoys, or for passing through specific areas.
- Humanitarian organisations should liaise with proper authority figures before moving through unknown areas.
- Humanitarian agencies may chose to operate their own convoys, or collaborate to form joint convoys. If more than one organisation is participating in a convoy, all parties should agree to and understand on rules in advance, and even develop written agreements in necessary.
- Agencies may use commercial vehicles, or they may utilise their own leased/owned vehicles. The policies and rules in place for convoys should reflect the transport arrangement. If commercial transporters are used in a convoy, terms of the convoy may need to be written into transporter contracts.
- The person/team on the receiving end of a convoy should ideally be informed in advance of what the anticipated cargo is, and if possible should receive an advanced copy of of the packing list, and receive estimated dates/times of arrival. All cargo should be counted - and if required weighed/measured - at the receiving end to ensure no cargo has gone missing along the way.

In the event of a cross-border operation:

- All customs related documentation should be identified and provided in advance to the driver, convoy leader, and intended recipient.
- A trustworthy person from the organising humanitarian agency should inspect cargo and vehicles both prior to arriving and the border crossing and after goods are cleared to ensure that cargo has not been tampered with and avoid accusation of smuggling.
• If cargo is offloaded and transloaded onto new vehicles, a representative from the organising humanitarian agency should be present to observe the process. Ideally, cargo should be counted after the transloading is complete to ensure that no theft or loss has occurred.
• Organisers should plan for border crossing times.
  • Vehicles may wait for days or even weeks at border crossings in some cases. Drivers must have the ability to eat and sleep safely while still maintaining physical presence around cargo vehicles.
  • Ideally, vehicles should be able to return safely in daylight hours if rejected at the border.
  • Any and all delays or problems associated with customs or border crossing should be communicated to the appointed organising focal point as soon as possible.

Convoy Organisers

It is strongly advised that convoy organisers should:

• Appoint a convoy leader with experience and knowledge of the route.
• Where possible, plan the route carefully in advance with designated stopping places.
• Generate and provide all required documentation, including waybills and packing lists.
• Decide before hand what procedures to follow if the convoy is obstructed or blocked, and brief all drivers fully before starting movement.
• Identify a security focal point and/or organiser outside the convoy who will be on call during convoy.
• Conduct detailed briefings with transporters/drivers.
• Ensure they have driver names, contact details, and vehicle plate/registration numbers prior to departure.
• Following each trip, record any security intendents or checkpoints for future planning.
• Develop a repair and recovery plan (spare parts, a chase vehicle, easy access to a recovery vehicle, etc.).
• Recover visibility items once the mission has been completed, especially in cases where commercial vehicles are in use.

Convoy Vehicles

Before a convoy departs, it is strongly advised that vehicles should:

• Be in a good mechanical condition. Organisations and planners should check for significant wear and tear, tyre pressure, etc.
• Travel with a full complement of spare parts (filters, belts, spare tires, motor oil, etc.) wherever possible.
• Where necessary, be well branded with their organisation logos. It is suggested to use at least one of the following items: flags, banners or large stickers.
• Be fully fuelled and ready to depart upon reaching the assembly point.
• It is strongly advised that vehicles have an alternate driver. The driver’s alternate should be legally able to drive, and have experience with long-haul trucking.

During a convoy, it is strongly advised vehicles should:

• Obey speed limits, and drive only as fast as conditions permit.
• Obey all local and national rules and regulations.
• Maintain a steady speed.
• Not overtake other vehicles within the convoy.
• If required, use flags to distinguish the first and last vehicle of each section.
• Maintain a constant distance between each other. The recommended distance is 100 meters in day, 50 at night, however distance between vehicles will depend on terrain, the speed required, visibility, and other limiting conditions.
• Not transport any cargo that is not contained on the associated waybills/packing lists, not part of the originally delivery plan, and that is not intent ended for humanitarian use.
• Where avoidable, not move in convoy before sunrise and/or after sunset.
• Abandon the convoy or leave any truck behind without instruction from the convoy leader or authorised person.
• Not pick up hitch hikers or other persons not originally in the convoy plan. Vehicles should be especially warned against transporting soldiers or non-state armed actors under any circumstances.

In the event a vehicle breaks down while in transit:

• All convoy vehicles must stop. The convoy leader should contact the designated organiser and security focal point.
• Convoys should resume only after it is determined that a repair/recovery effort is underway, or if the security focal point determines that it is safe to leave a vehicle behind.

Convoy Drivers

As a general guide, convoy drivers should:

• Not carry or transport any form of weapons, narcotics, and/or spirits.
• Depart without the authorisation of the convoy leader and/or authorised convoy organiser.
• Hand over any fuel or communication equipment, money, or cargo contents to any persons on the road unless they are part of a planned delivery/distribution process.
• Participate in any inappropriate behaviour (including but not limited to, any form of intoxication, harassment, sexual harassment, abuse of power). Appropriate behaviour of convoy personnel should be mandatory.
• Drivers must carry all the necessary legal documentation clearing them to drive in the areas of operation.