

# Managing Transport

## Developing a Transport Strategy

A transport strategy in a humanitarian context varies from one organisation to another and from one situation to another, and is largely dependent on the needs of the response. Some factors to consider when developing a transport strategy are:

- How to identify transport service providers.
- How to manage transport – self managed or third-party provided.
- Capacity of transport modes available.
- Quantities of goods requiring movement over time.
- Nature of goods/products/supplies to be transported.
- Distances to be covered.
- Environmental issues such as climate, government legislature, and infrastructure.
- Number of destinations, hubs and pre-positioning locations.
- Origins, routes, and destinations.
- Available transport modes & their relative costs.
- Human resources available.
- Security along the transport route.
- Special circumstances, such as the nature of disaster.

The above factors would be valid for both emergency and non-emergency situations.

Transport management in emergencies can be a complex task depending on the nature of the disaster. Humanitarian organisations have increasingly begun to use the joint transport services as a strategy in emergencies, such as those implemented by the Logistics Cluster during emergencies. A joint transportation service is based on a collaborative approach and aims to leverage the advantages of centralised coordination and sharing of assets.

## Organizing Transport

In emergency contexts, transport can logically be divided between domestic/local transport and international transport. The general concepts around domestic and international transport remain largely the same, however special considerations are required for both.

**Domestic transport movement** - Local movements within a specific country will usually involve road transport, however rail, air, river and even at times sea transport can occur in domestic movement. This may involve movement of palletised/bulk loads from ports, airports and rail-yards to warehouses and depots, palletised/bulk movements between facilities such as warehouses or depots, or delivery of smaller consignments from a local warehouse or depot to end users at a number of destinations in an area. Domestic transport requires actors to follow all local laws and safety regulations.

**International movement** - International transport requires the transmission of physical goods across a legally defined international border or boundary, and in most normal circumstances requires undergoing standard customs procedures. The local market will not always be able to provide all the products and services required to fulfil the needs identified in an emergency response. Response agencies will therefore source goods externally and organise the transportation of relief supplies to affected locations. To ensure efficiency and compliance with import regulations the organisations seek service providers with expertise and capacity to handle certain aspects of the movement.

# Mode of Transport

A mode of transport is the means by which goods and material are transferred from one point to another. The basic modes of transport are:

1. [Air](#)
2. [Sea / Riverway](#)
3. [Road](#)
4. [Rail](#)

See below a mode comparison matrix for different modes.

	<a href="#">Road</a>	<a href="#">Rail</a>	<a href="#">Sea/Riverway</a>	<a href="#">Air</a>
<b>Relative Speed</b>	Moderate	Moderate	Slow	Very High
<b>Reliability</b>	Good	Good	Limited	Very good
<b>Cost per kg</b>	Medium	Low/Medium	Low/Very Low	High
<b>Flexibility</b>	High	Low	Low	Medium
	Extensive Network	Limited and fixed infrastructure	Restricted Network	Limited Network
<b>Other Considerations</b>	Short and medium distances from neighbouring country to operation site; internal transport for short and medium distances	Large consignments from port of discharge to inland operation site; ecological	Large quantities; less urgent; pre-positioning phase; long distances with no time constraint	Emergency phase; expensive goods; fragile or perishable goods; cold chain; no alternative option; small shipments; e.g. diplomatic pouches; long distance with time constraint.

	<u>Road</u>	<u>Rail</u>	<u>Sea/Riverway</u>	<u>Air</u>
<b>Advantages</b>	Relatively fast; no transshipment; direct delivery; flexible; cost	Economical; large loading capacity; range and speed (context depending)	Economical; large loading capacity; no restriction on loading capacity; cheap	Fast; reliable; limited losses; direct; easy tracking and tracing
<b>Disadvantages</b>	Roads may be dangerous or blocked; sometimes driver nationality or vehicle registration not acceptable	Difficulty finding freight cars; frequent delays; transshipping required; inflexible; limited tracking	Slow; transshipping at ports; use as a second means of transport at high volumes; higher theft risk in ports; not flexible	Expensive; restricted to journey's between airports; restricted loading capacity; special considerations (dangerous goods, size limits, packing, etc.)

In emergencies, the criteria of speed and reliability must be examined when considering the choice of mode. Different modes have quite different characteristics and will need to meet the speed/reliability/cost criteria to varying degrees. The appropriate mode must be carefully selected if it is to match all the requirements. Multi-modal solutions may provide the most effective and efficient transport option.

Whilst the physical characteristics of certain goods and supplies may determine a specific mode of transport, most goods will be capable of being moved by a variety of modes. Customer requirements and constraints on the organisation providing the transport must be considered. In humanitarian aid situations, it is often environmental factors, such as the destruction of roads and railways that have a significant impact on mode selection.

It is important to fully recognise the operational characteristics of the mode or modes that have been selected. It is also necessary to consider the type of vehicle or equipment that will be used within that mode. Prior to making a decision on the mode of transport, it would be useful to create a matrix ranking of influential factors for choosing transport modes. Some factors to consider in the rating:

- Required delivery date
- Cost of transport service
- Reliability and service quality
- Shipment size and item type
- Anticipated transit time
- Number of transshipment points
- Range of different services offered by a third-party provider
- Modes that realistically cannot be considered should be ruled out of the decision process immediately
- Geographical factors should be considered, as they may remove the opportunity to use a particular mode
- Lack of appropriate infrastructure may also remove the opportunity to use a particular

mode