

Introduction

The use of overloaded and oversized trucks in camp areas is a recurring problem and the rising frequency of related accidents impacts the safety of refugees, deteriorates road conditions, and worsens traffic fluidity. To minimize these practices, the humanitarian community is required to jointly improve monitoring of cargo deliveries in the camps and ensure that activities are supported by a safe logistics operation.

The payload restrictions for heavy vehicles implemented by the Armed Forces Division (AFD) aims to address two major problems:

- Safety risks resulting from traffic accidents caused by overloaded vehicles, including fatal cases;
- Road deterioration due to the use of heavy vehicles on roads with limited weight bearing capacity.

Since June 2018, the agreed vehicle size recommendation for trucks entering the camps is restricted to 5 mt during dry seasons and 3 mt during wet seasons to preserve road conditions and ensure vehicles are properly dimensioned to safely move through the narrow road network in the camps. Moreover, poor maintenance of vehicles and aggressive driving (often resulting from attempts to save time and increase frequency of deliveries) further add to the safety risks of the operation.

Dry season max payload:
5 mt (5,000 kg)

Wet season max payload:
3 mt (3,000 kg)

In support of sectors operating in the camps and the AFD seeking to enforce the maximum payload recommendation, this document aims to provide recommendations on the movement of cargo in camp areas and the management of suppliers/transporters to ensure safe traffic when delivering humanitarian assistance in the camps.

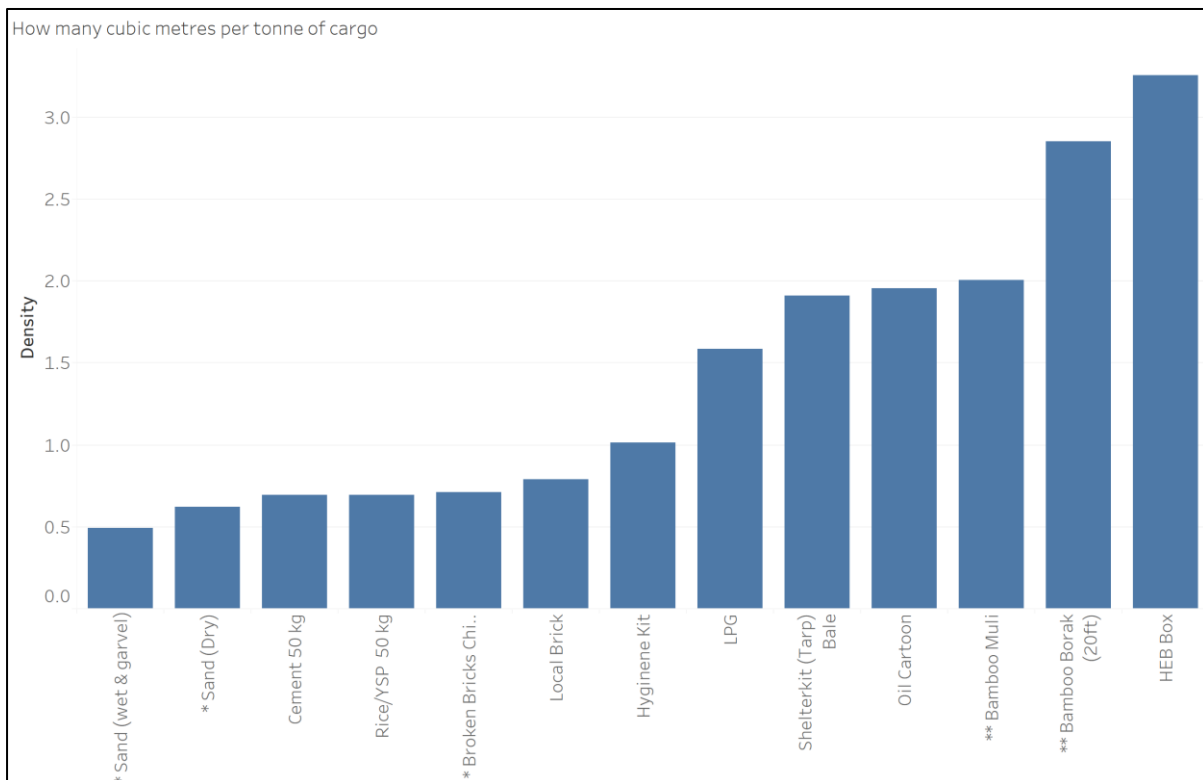
General Recommendations

1. All trucks moving goods should carry a supporting waybill and challans listing the load, consignee and consignor. **Organisations are required to declare the total weight of the cargo in the waybill.**
2. Storekeepers/warehouse teams should properly supervise the loading process to ensure the correct quantity is loaded. Organisations have full control over how much cargo is loaded into the trucks.
3. When receiving consignments directly from suppliers, organisations are advised to include the payload restrictions in their procurement documentation (e.g. purchase orders, contracts) stating the lot sizes that should be delivered per truck in order to respect the payload limits in the camps.
4. A delivery schedule should be used, anticipating the total payload and delivery cycles required in order to ensure the fleet utilised is appropriately dimensioned for the task.
5. The vehicles should be in good condition and regularly maintained, clearly able to handle the cargo being loaded without risk of breakdown. Organisations are recommended to monitor that vehicles are in good condition, are regularly maintained, and to refuse the use of vehicles that are not able to operate safely. **Particularly, organisations are advised to verify tire and brake conditions.**

6. Drivers should be constantly instructed to not speed within the camps and to be cautious when crossing densely populated areas, such as markets.
7. Drivers should be experienced, possess a valid licence, and be able to safely drive cargo vehicles in highly congested areas.
8. If larger vehicles are used to gain scale in long-distance transport (e.g. from Chittagong to Cox’s Bazar), the cargo should be transloaded to smaller vehicles before proceeding to the camps. Transloading can occur within warehouses outside the camps or at Logistics Sector hubs.

Weight and Volume Recommendation

When loading trucks, cargo has two dimensions to be considered: weight and volume. Some cargo is heavy but less voluminous, while other cargo is lighter but more voluminous. For example, bamboo is very light, so transporters may attempt to load vehicles higher than the limits of the cargo compartment; conversely, wet sand is very dense, so a truck that appears to be underloaded may actually be significantly above the payload restriction. The chart below indicates the total volume for 1 mt of cargo for different supplies to illustrate this variance:



Partners are requested to respect vehicle payload and volumetric capacity. Even if trucks do not reach their maximum payload, they should not be loaded beyond their cargo compartments. Overloading effects vehicle balance and can cause them to roll over.



The references below are indicative of the total amount of cargo that would fit in a 5 mt truck respecting the weight and volume restrictions.

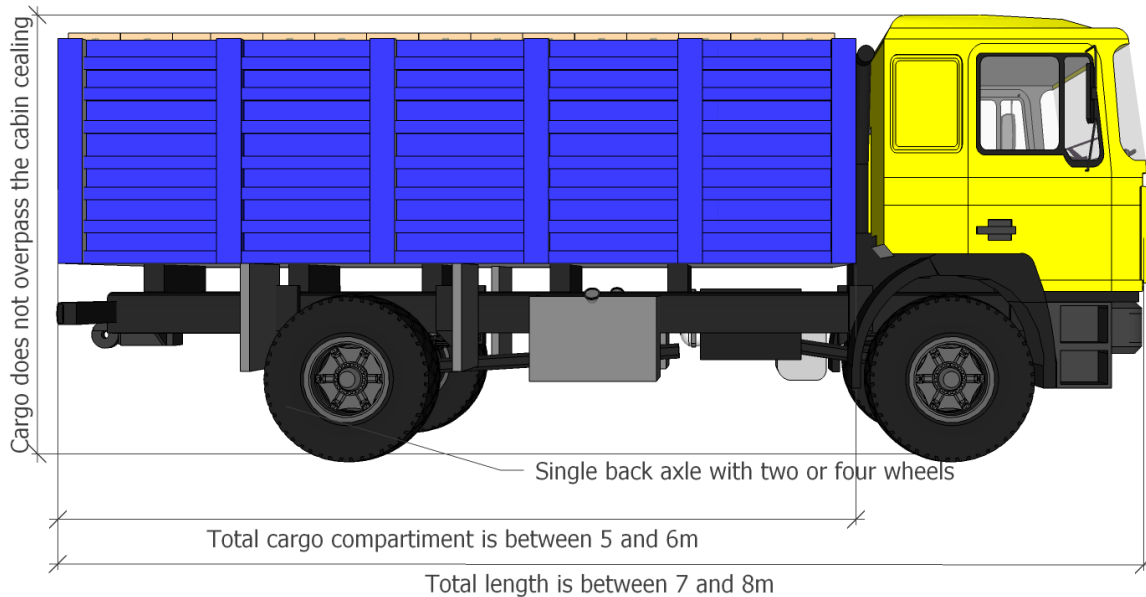
Organisations are responsible for physically verifying their dispatched cargo and ensuring that weights and volumes are correctly calculated and monitored.

Estimated quantities for 5 mt trucks are:

Description ¹	Unit Weight (kg)	Quantity (Unit)	Total Weight	Volume
Bamboo Borak (20ft)	23.50	200.00	4.70	13.40
Bamboo Muli (15ft)	1.25	2000.00	2.50	5.02
Broken Bricks Chips	NA	NA	5.00	3.57
Cement 50 kg bags	50.00	100.00	5.00	3.46
HEB Box	5.00	855.00	4.28	13.92
Hygiene Kit	3.18	1570.00	4.98	5.04
LPG Cannister	24.00	200.00	4.80	7.60
Oil Carton	14.08	355.00	5.00	9.78
Rice/YSF 50 kg	50.00	100.00	5.00	3.46
Sand (dry)	NA	NA	5.00	3.12
Sand (wet and gravel)	NA	NA	5.00	2.48
Tarpaulin 5pce bale	23.00	217.00	4.99	9.53
Local Brick	2.50	2000.00	5.00	3.95

¹ The measurement of sand and brick chips is based on density: i.e sand (dry) 1,602 kg per 1 cbm, sand (wet and gravel) 2,020 kg per 1 cbm and broken brick chips 1,400 kg per cbm. (Verified by the WFP Engineering Unit)

Most trucks in the camp areas have a 5 mt capacity. They typically have two axles and between four and six wheels. The image below shows the typical dimensions of a 5 mt truck:



The AFD will initially monitor trucks based on the overall volume of cargo being transported. Thus, organisations should not load cargo beyond the limits of the truck cargo compartment and should not load cargo beyond the ceiling height of the vehicle driver cabins.

The only oversized cargo permitted is bamboo. Bamboo may surpass the end of the vehicle, but should still not exceed the height of the cabin.

The table below indicates typical estimates for 5 mt and 3 mt trucks and 5 mt dump trucks for reference:

	5 mt			3 mt			5 mt Dump Truck (Hino)		
	Length (m)	Width (m)	Height (m)	Length (m)	Width (m)	Height (m)	Length (m)	Width (m)	Height (m)
* Vehicle	7.45	2.34	2.88	5.1	1.68	2.22	5.65	2.2	1.66
Cargo Compartment (Trailer)	5.8	2.07	1.2	3.1	1.6	0.65	3.4	2.02	0.48
* The total vehicle measurement reflects length from front bumper to back bumper, width from the tire to tire (axles), and height from tire to top rack on the roof. (Source: 5 mt Hino Truck Manual)									

Typical Truck Profile

The trucks below are examples of vehicles seen in camp areas, their payload capacities, and their suitability to deliver supplies within the camps:²

Suitable vehicles for transporting cargo into camps:



3 mt carrying typically 2.7-3 mt **OR**
Small tipper carrying up to 5 mt
construction supplies (e.g. sand/broken
bricks)

Equivalent brand/model:

Mahindra LoadKing

Mitsubishi Canter



General cargo 5 mt truck

Equivalent brand/model:

Tata 1109 EX2

Tata 1109 EX2

Ashik Leyland 1214



² Note the brand/model are solely indicative of available models and are not a recommendation/endorsement of specific vehicle brands or model.

Vehicles that are not suitable for transporting cargo into camps:



20 ft container equivalent carrying typically
7 mt capacity.

Equivalent brand/model:

Tata 1615



25 mt dump truck

Equivalent brand/model:

Eicher Terra



40 ft Container Trailer carrying more than
20 mt.

