

GLO – FOR – SUSTAINABILITY: SHARING BEST PRACTICES

| Good practice title: | Using Rail Transport for containers delivery |
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| Contact person: | Mihret Teka |
| Site: | ADD |
| Country: | Ethiopia |
| Process cluster (unit) or premises | ImpEx |
| Year of implementation : | 2023 |
| Good practice description ¹ (why, how and | More than 86% (around 9,686 Tons) of the total cargo volume to Ethiopia was transported using Ocean Freight for the year 2022-2023. |
| who was involved): | Ethiopia, as a landlocked country uses port Djibouti as its main entry for all ocean freight shipments. After the port clearance competed, the delivery of containers to the preferred ICRC warehouses is done using freight trucks . |
| | Road/Truck transport is known to be the most significant contributor of carbon emissions yet the most widely used mode of transport to move import and export goods through different entry corridors of Ethiopia. |
| | Majority of freight trucks which are operating in Ethio-Djibouti corridor are above the age of 10 years, hence they frequently face technical failure and their carbon emission is high. |
| | To reduce the carbon emission impact of the delegation, one of the initiatives taken by ImpEx was to look for alternatives mode of transports that has lower emissions for the last mile delivery and rail transport has been considered. |
| | The rail transport is provided by Ethio-Djibouti Standard Gauge Railway Share Company or Shortly Ethio-Djibouti Railway (EDR) which is established in April 2017 and owned by the state. |
| | The first shipment, 3X40' containers of wheelchairs was transported by rail from Djibouti to Addis Ababa on Jun-2023 and the service was again used to move 3X40' containers of Mosquito Nets on Aug-2023. |

¹ If you think this best practice can be improved don't hesitate to share your comments please.



Good practice result (does it reduce cost, C02 emissions, waste etc):

The main objective of the initiative is to reduce the environmental impact of the ImpEx unit while meeting delivery and cost benefit expectations of the delegation. The tank-to-wheels (TtW), an average of all Greenhouse Gas released to the atmosphere during operation was used to compare the the Rail and Road taking the the two shipment (6X40' Containerrs) tramnsported by rail as a sample.

In the comparison below you will see that that Rail transport is considered to be of the cleanest form of transportation comparing with truck trasnportation.

By using rail transport to move 6X40' containers (with total weight of 33,967 Kgs) the TtW was reduced by 812 and which means for every load by Rail there is a reduction of emission by 130% compared to road transport. The sustinability impact can be increased to a significant level by increasing the volume of cargo transported by rail.

| _ | Summary 923 km 559 km (GCD) | | |
|---------------------------------------|---------------------------------------|----------------------------------|---------------------------------------|
| | 1,392.13 kgCO 2 | 33,967 kg | 102.00 cbm |
| Djibouti to Addis Ababa | 1,415.08 kgCO ₂ e (TtW) | | 1,683.02 kgCO ₂ e (WtW) |
| | | Summary 725 km 559 km (GCD) | |
| e e e e e e e e e e e e e e e e e e e | 599.79 kgCO z | 33,367 kg | 100.20 cbm |
| Djibouti to Addis Ababa | 599.86 kgCO ₂ e (TtW) | | 600.83 kgCO ₂ e (WtW) |

Rail transport have also a cost advantage, the efficiency is more visible over long distances and the Ethio-Djibouti Standard Gauge covers a total of 725 Kms and the cost is found to be less by 36% when it compared to Road/truck transport.

| S.No | | Cost Decsription | Cost Rail Transport (PER 40') | Cost Freight Trucks (PER 40') | Comparasition |
|------|---|-------------------------------|-------------------------------------|-------------------------------------|---|
| | 1 | International Land Freight | 126 000,00 ETB | 198 375,00 ETB | Rail Transport Service is less by 36,5% |

Problems encountered (*if* anv):

F Rail Wagon allocation is given to Ethiopian Shipping lines in a priority, this makes the rail schedule unreliable. Due to the reason mentioned above containers loading time from the port can be unpredictable and lengthy. To reduce this risk the team mades continues follow-up with nominated agents and remind them on the urgency of cargo for timely loading of containers however the wagon assignment is done by EDR so they cannot do much until wagon number given to them.

It is difficult to use the service for urgent and sensitive shipments In addition, EDR does not provide transport service for loading of HAZ and cold chain shipments so the service cannot be used for chemicals with HAZ nature and REFF containers. Therefore the Supply chain team knows well the options and depending on the nature and urgency of the shipment they chose the right mode of transport.

The minimum expected volume for rail departure is 100 TEUs at a time, consolidating that much container could take much time. The ICRC does not have such volume and shall depend on freight forwards to gather other company containers to book a full rail and get the service. Freight forwards consolidate cargo from different clients and have the capacity to book a full train which doesn't depend on fixed rail schedule, at the same time the freight forwards worked with EDR and have a good relations with them therefore can negotiate earlier booking scheduale.

Once the cargo arrives to the final destination, trucks needs to be involved to pick up the containers from the station which is around 30km away from the warehouse which is not difficult.

Add images here: