

Key Performance Indicator (KPIs)

Key Performance Indicators (KPIs) are indicators of progress that capture an intended result. They are used for strategic and operational improvement, they create an analytical basis for decision making, and they help us understand what metrics matter most. Using KPIs to manage requires that teams develop and set targets (the desired level of performance) and track progress against those targets. Managing warehousing and distribution using KPIs means teams are working to drive efficiencies and build capacity. Below are KPIs you should consider using at your warehouse/distribution center and in your transportation and distribution services.

	Beginner	Advanced
Distribution	On Time Departure	Percent Utilization
	On Time Arrival	Fleet Yield
	On Time PODs	Cost per kilometer
	Perfect Load	Stops per load
	Delivery Accuracy	Freight cost per unit
	Operational Performance	Outbound transportation cost as a percentage of cost
		In-Transit Time
		Claims as a percentage of transportation costs
		Driver Dashboard
Warehousing	Inventory Turnover	Space Utilization
	Stock aging analysis / FEFO	
	Inventory Accuracy (Micro and Macro)	First Expiry, First Out (FEFO)
	Picked, Packed and Dispatched (PPD) Accuracy	
	Product lost due to theft, damage, or expiry – Warehouse	

[Instructions: The list of KPIs below are sample KPIs from the HSS team. You may add to the list as needed for your own IQS. Please ensure that you are not over including KPIs for the sake of having KPIs but rather that the indicators chosen reflect the capacity of your supply chain and the results that you can and want to measure. Think through the conditions that need to be in place prior to the KPI being measured such as distribution plans or commodities and then go from there. You may also extract the list below, edit as needed, and then insert them as an Annex (and this is preferable). You should work with the HSS team to finalize appropriate KPIs for your needs. Please only choose three to six KPIs maximum and feel free to verify with HSS and W&D team. Overall, we expect country teams to keep detailed records on performance, KPI performance and record it for use in any reference check and past performance in the case of any future rebids]

Driver/Distribution KPIs / Metrics

Beginners KPIs /Introductory level KPIs – the following should be included for countries that have never implemented or measured KPIs. Teams should assess where they need to closely manage 3PLs and use KPIs that are relevant to the specific country context.

Highly Recommended:

- On Time Arrival: Defined by percent of the loads arriving at a specific date. Start with a reasonably wide window of time and then tighten it up as they get better. (This is non-negotiable and please define what on time arrival means and be very specific per the country context).
- Percent of PODs submitted on time (This is critical but please be sure to define what on time means for your country and the context and be very specific in the manner you want to receive the PODs i.e., email, electronic system. If paper-based you need to provide the specific details on when and how.)
- Delivery Accuracy: Number of correct drop off points receiving correct quantity of product.

Additional Options:

- Measure On Time Departure: Defined by the percent of loads that leave on a specific date/time.
 - Distribution start date
 - Delivery schedule that includes staging, departure and arrival for each drop point.
- Percent Perfect Load (no DSO: damage, shortage, overage).
- Operational Performance: Damages/losses/theft/anomalies incurred during operation, including occurrences within and not within the control of the 3PL
 - Depending on country context you can have two options to measure this: 1) Track the incident itself and the nature of the incident and 2) Track that the 3PL reports the incident within the timeframe provided, should an incident occur.
- Quotation/routing + costs proposal/invoice KPI. Here, depending on your country context, you may want to include a KPI which measures the 3PL's ability to properly present their costs/routing and follow instructions. Options include but are not limited to:
 - Quotation packet received in full by deadline requested
 - Quotation packet is complete; complies with contractual parameters and processes (including instructions, distribution plan, pricing, any justifications, and documentation needed)
 - Routing plan and costs are submitted in full by deadline requested and per the cost schedule
 - Invoice/invoice packet received in full by deadline requested (i.e., 48h after end of distribution operation) and per the cost schedule and including any needed annexes
- Submission of Final Summary Distribution Report within 5 days of distribution completion

Advanced KPIs -The following are recommended for countries that have implemented KPIs in the past and want to further improve or add new control measures:

- Percent of utilization: used space within a given truck. Is there a second level of verification?
- Fleet Yield: driver throughput per actual units per hour delivered
- If your country has a sophisticated technology (QR code, GPS, ePOD, geofencing), please work with HSS team to identify an effective KPI for your team that makes sense based on the technology and that is useful for you to measure.
- Stops per load: Defined as number of drop points per load. Couple this one with volumetrics and you get a great look at how well the routes are run and established. It also is a correlation for cost per kilometer. The better the route (less kilometers, maybe the higher stops per load) equals lower costs per kilometer
- Freight cost per unit: The indicator is calculated by dividing the total freight cost by the number of units shipped in shipping cycle/period (volumetric data required).
- Outbound transportation cost as a percentage of cost: The (delivery) freight costs are divided by the revenues of sales for a given period. A useful gauge is to check the financial performance of the transportation area or provider.
- In-Transit Time: Measured as the number of days (or hours) from the time the order departs the Distribution Center/Warehouse until it is delivered.
- Claims as a percentage of transportation costs: This is calculated by dividing the costs of loss and damage claims by the total transportation costs. (Over, Short, and Damaged (OS&D) information)
- Driver Dashboard: Provides visibility into each driver's performance vs the total team (km driven, Total deliveries, OS&D, Issues, Time at delivery location)

Warehouse/Distribution Center KPIs / Metrics

Beginners /Introductory level KPIs – the following are highly recommended for countries that have never implemented or measured KPIs:

- **Reports submitted on time.**
 - Monthly stock report submitted on time. This the monthly stock on hand report that shows commodities received, dispatched, and stock on hand in a given month and must be submitted to the PSM project within 3 days of the end of the month (depends on contractual deliverable in your RFP and contract).Reception Report: 3PL sends email within 24 hours to inform FO of commodities that have been received at the warehouse, annexing PODs of commodity receipt and all accompanying freight documentation (Gold Standard is 24 hours but countries may discuss with HSS if for some reason there is a case for 48 hours).
 - Inbound shipment arrival report: 3PL sends email within two business days of inbound shipment arrival to inform FO of what commodities were received in the warehouse. The report shall contain product name, presentation, quantity, CBM/pallets, batch/lot number, expiry date, date commodities were received in the warehouse. This is different from the reception report in that it is more detailed and is after the commodities are unpacked and fully received within the warehouse and leads to more accurate storage billing (Gold Standard is two business days but if there are mitigating country circumstances you can discuss with HSS to extend up to five days. PSM preparer may provide the report at the contract stage or allow the 3PL to propose an agreed upon format.)
 - Dispatch of outbound shipments report: 3PL sends email within 24 hours after each dispatch of outbound shipments to notify the FO of what commodities were dispatched from the warehouse. The report shall contain product name, presentation, quantity, CBM/pallets, batch/lot number, expiry date,

Commented [JP1]: These may be deliverables instead of KPIs @Winnie Moyo

date commodities were dispatched from warehouse. This assists FO to ensure they are accurately billed for storage. (Gold Standard is 24 hours but if there are mitigating country circumstances you can discuss with HSS to extend up to 48 hours. PSM preparer may provide the report at the contract stage or allow the 3PL to propose an agreed upon format.)

- Stock on Hand Report: Generally, this is produced on the first day of each month for example. Report shall reflect the preceding month; in addition, 12-month report by the 5th of October for the period 1 Oct– 30 Sept: to show stock on hand and anomalies, expired, damaged, products etc. There are different frequencies that PSM can require these reports if you are having the 3PL pull these manually and sent to you (i.e., not an electronic system that you both manage), these include the following options: This may also be linked to your payment schedule.
- Inventory Accuracy – In order to monitor inventory accuracy, Chemonics should be given prior notice of all inventories conducted and or cycle counts (a schedule provided) and should be allowed to participate in all such inventories or cycle counts. There are two types of inventory accuracy that we monitor:
 - Micro Inventory Accuracy definition: To assess the accuracy of product quantity per batch per bin location when comparing system to physical cycle count. This indicator tracks product quantity accuracy by batch per bin location.
 - Macro Inventory Accuracy definition: To assess the accuracy of product quantity when comparing system records to physical cycle count. This indicator tracks products lost due to theft or unexplained loss at a macro level within the warehouse.
 - Stock variance report: This report is highly recommended for countries using stock on hand system to monitor stock on hand reports via the WMS system. The Subcontractor will be required to do daily cycle counts and GHSC-PSM reserves the right to request the daily cycle count stock sheets. Should there be a concern on the discrepancies on the daily reports than a physical wall to wall stock count will be required.
 - Alternatively, this could be a periodic wall-to-wall stock take with GHSC-PSM and the 3PL or the entity which manages the warehouse.
 - If used, each country should create a way to measure the accuracy of the wall-to-wall inventory report
- Product lost due to theft, damage, or expiry – Warehouse: To measure percentage of products damaged, stolen, or expired while being warehoused in Chemonics' custody when compared to system records and physical cycle count and good inventory management/warehousing practices.
- On time offloading and system updates: all trucks that come to the warehouse should be offloaded within 12-24 hours, depending on the operation hours of the recipient facility and systems should also be updated within the same timeframe (i.e., using a POD and cross-checking with the time and date of entries within the system).
- Inventory Turnover: Inventory turnover (Turns) is a vital warehouse management KPI. It is the frequency at which you sell/ship out your inventory (how quickly you sell and ship stock once it's been put into storage. The higher the turn number the lower the cost to store). $\text{Inventory Turnover} = \text{Cost of goods sold/shipped} / \text{Average Inventory}$. By consistently monitoring we can better manage our inventory throughput.
- Picked, Packed and Dispatched (PPD) Accuracy: To measure the accuracy (assuming the order is correct) of product quantity per batch picked, packed, and dispatched when compared to distribution order.
- Stock aging analysis: This assesses expiries/out of code as a percent of total inventory (can be by month, quarter or annually). This KPIs measures and encourages the 3pl to use First Expiry, First Out (FEFO) To ensure FEFO compliance and prevent expiries there by maximizing use of resources and mitigating financial losses.

Advanced KPIs – The following are recommended for countries that have implemented KPIs in the past and want to further improve or add on new control measures:

- Space utilization: Measures total cube/volumetric space available against what is in use. The amount of warehouse space being used (measured in square meters) divided by the total warehouse or facility space, as a percentage. (Volumetric data is required for this KPI)
- Throughput rate: Throughput measures the number of units that are processed and moved through your building/warehouse, either during stocking and inventory processes or fulfilling orders. It is calculated using the formula $\text{Inventory} = \text{rate} * \text{Time}$ ($I = R * T$)

Countries that require manual reports:

- Monthly: This may apply monthly if you are managing a few commodities, a few SKUs like 1-10 different commodities. This process can start each fiscal year in October and monthly reports can be added to each previous month. If you are paying them monthly for warehousing, you may want to require a monthly stock on hand report before paying them.
- Quarterly:
- Every Six Months:

Countries that have access to WMS/electronic stocks:

- Monthly: This may apply monthly if you are managing a few commodities, a few SKUs like 1-10 different commodities. This process can start each fiscal year in October and monthly reports can be added to each previous month. If you are paying them monthly for warehousing, you may want to require a monthly stock on hand report before paying them.
- Quarterly:
- Daily cycle count stock reports.