GSSD User Guide

Welcome to the Global Supply System Dashboard Proof of Concept. Please read the instructions below to familiarise yourself with the functionality of the prototype dashboard and the keys/legends used to describe the data sets included in the dashboard.

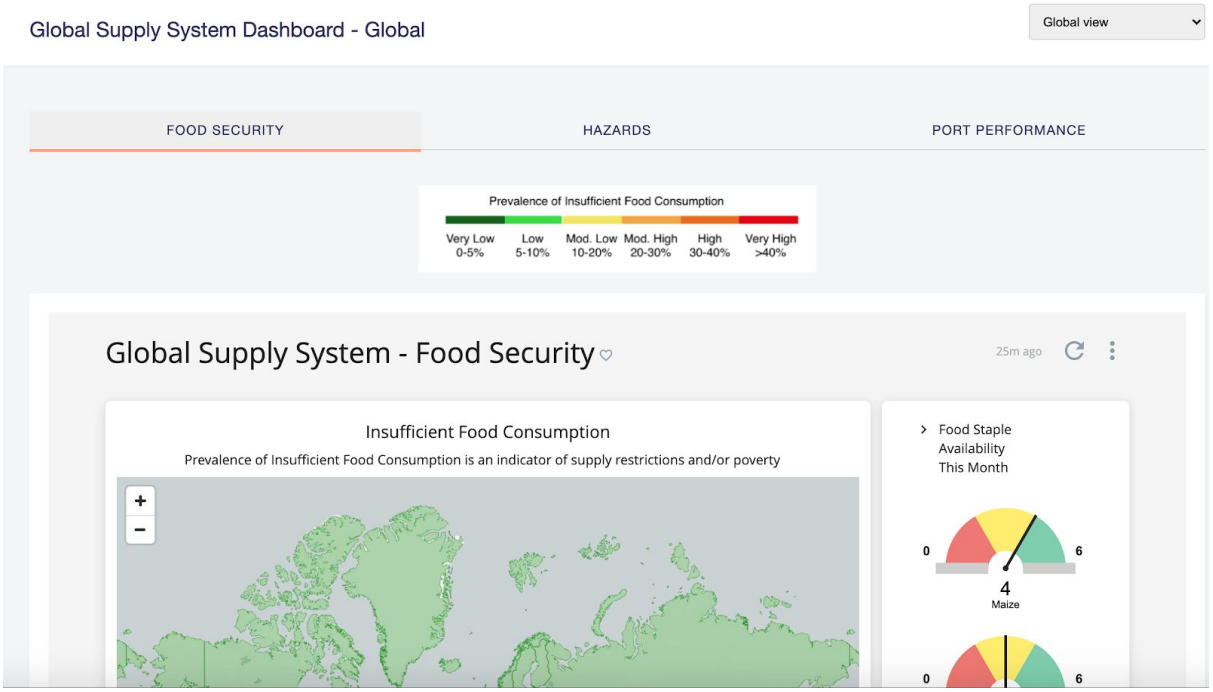
Disclaimer: The GSSD Proof of Concept aims to prove the value proposition of a limited set of aggregated data sets, demonstrating the pre-competitive nature of the data shown in the dashboard. For this Proof of Concept (MVP1), mock data has been used.

1. Registration

Once you have read the GSSD information on the landing page you will be able to register to view the dashboard. Clicking the Register button will open a pop-up window where you are required to submit your Name, Email and Company name. Click on submit and you will be taken to the dashboard.

2. Global View

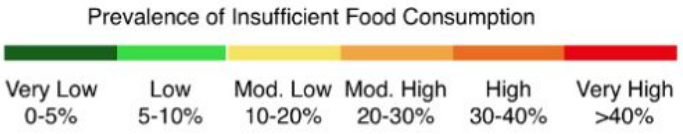
The home screen of the dashboard will by default load to the Global View showing Food Security. There are 3 tabs which show Food Security, Hazards and Port Performance aggregated data.



a. Food Security

This dashboard view shows the following information:

- **Food Security by Country:** each country has a score and is colour coded according to the legend at the top of the page, “Prevalence of Insufficient Food Consumption” (Source: World Food Programme). The Prevalence of Insufficient Food Consumption is based on a Food Consumption Score (FCS) which is a proxy indicator for food security that measures the diversity of household diets, and how frequently food is consumed. The FCS is calculated using the frequency of consumption of eight food groups by a household during the 7 days before the survey using standardized weights for each of the food groups reflecting its respective nutrient density, and then classifies households as having ‘poor’, ‘borderline’ or ‘acceptable’ food consumption. Hovering over a country produces a tooltip which shows the country score.



- **Food Staple Availability:** The top 4 worldwide staples, which include Rice, Maize, Wheat and Soybean, are scored on a scale of 1-6, with 1 = Poor and 6 = Good. This score is calculated by evaluating the deviation of Actual Supply from Forecasted Supply and aggregated to a global score.

- **Global Commodity Prices:** Daily and Monthly evolutions of the commodity price charts are provided and provide indications of commodity price volatility which can impact on supply and demand of these commodities. By clicking on the legend of the chart, the user can remove or add commodities from the chart.

b. Hazards

This dashboard view shows the following information:

- **Global Hazards:** a variety of Hazards are shown on the Global map. Hovering over the hazards produces a tooltip which shows Location, Type of Hazard, Severity and Reported date for the Hazard. The severity is provided according to the legend at the top of the Hazards page (Source: WFP, Pacific Disaster Centre).
- **Latest Hazards:** Global hazards are presented in tabular form underneath the Global Map of Hazards.

c. Port Performance

This dashboard view shows the following information:

- **Global Ports Map:** the world map is populated with icons for all Ports globally. Each Port is colour coded according to a scale of 1=Poor (Red) and 6=Excellent (Green). By hovering over a port, the tooltip displays the following information:
    - Port Location
    - Port name
    - Country
    - Type Size
    - Health Score
    - Dwell time
    - Turnaround time

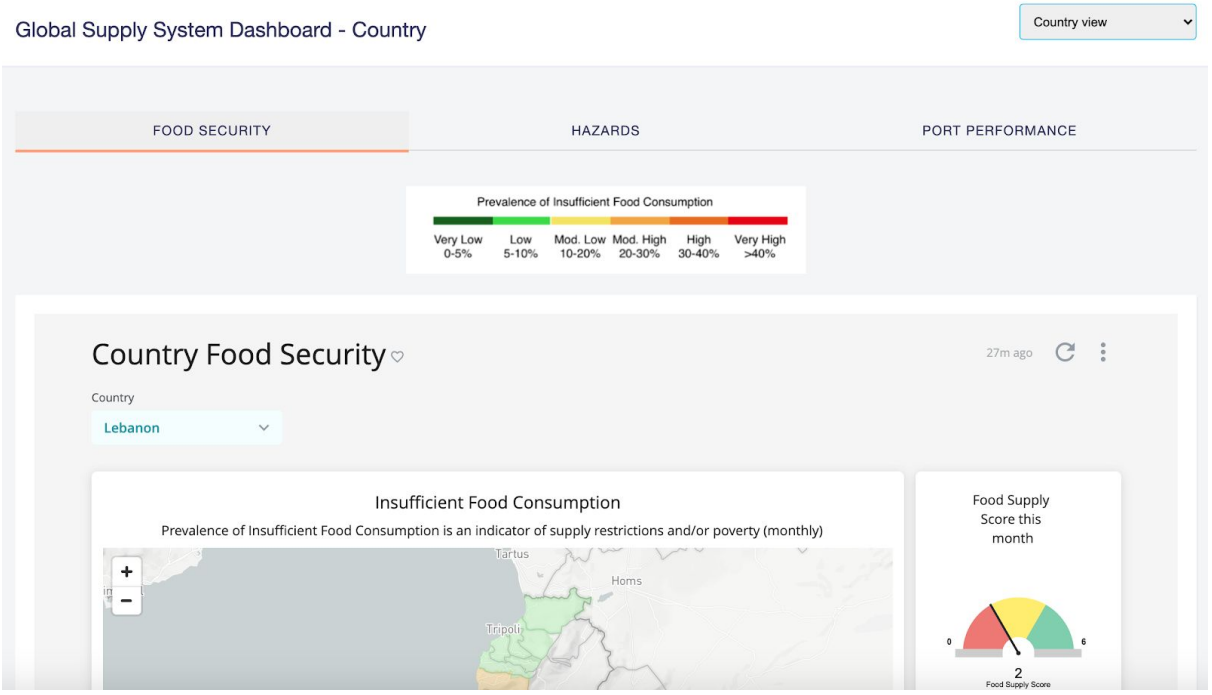
The Port health score is calculated based on the deviation from a baseline value for 2 parameters:

- Dwell time - the amount of time a vessel spends waiting to enter a particular port;
- Turnaround time - the amount of time for a vessel to steam in, start up time, operational time and steam out time for a particular port.

You have the ability to zoom in and out on this map to view geographically different locations for visual port performance assessment.

3. Country View

To select the Country View, click on the drop down menu on the top right hand side of the dashboard and select “Country View”. Once again there are 3 tabs which show Food Security, Hazards and Port Performance aggregated data.



a. Food Security

This dashboard view shows the following information:

- **Food Security by Country:** the country has a score and is colour coded according to the legend at the top of the page, “Prevalence of Insufficient Food Consumption” (Source: World Food Programme). The Prevalence of Insufficient Food Consumption is based on a Food Consumption Score (FCS) which is a proxy indicator for food security that measures the diversity of household diets, and how frequently food is consumed. The FCS is calculated using the frequency of consumption of eight food groups by a household during the 7 days before the survey using standardized weights for each of the food groups reflecting its respective nutrient density, and then classifies households as having ‘poor’, ‘borderline’ or ‘acceptable’ food consumption. Hovering over a country produces a tooltip which shows the country score.
- **Food Supply Score:** this is an overall country Food Supply Score which is an aggregated score based on the individual Food Staple Scores for the particular country.

- **Food Staple Availability Score:** The countries top staples are scored on a scale of 1-6, with 1 = Poor and 6 = Good. This score is calculated by evaluating the deviation of Actual Stocks from Forecasted Stocks and aggregated to a country score.
- **Local Food Supply by Season:** each country has Supply of Food commodities, whether they are producers themselves or whether they rely on imports. This chart shows the historical supply of food commodities as well as a forecasted supply. From this one can determine whether there are any downward trends in supply. By clicking on the legend of the chart, the user can remove or add commodities from the chart.

b. Hazards

This dashboard view shows the following information:

- **Local Hazards:** a variety of Hazards are shown on the map of the country which has been selected. Hovering over the hazards produces a tooltip which shows Location, Type of Hazard, Severity and Reported date for the Hazard. The severity is provided according to the legend at the top of the Hazards page (Source: WFP, Pacific Disaster Centre). Being aware of hazards, their severity and location, the user can use this information to infer disruptions to nearby transport nodes.

c. Port Performance

This dashboard view shows the following information:

- **Country Ports Map:** the country map is populated with icons for all Ports for the selected country. Each Port is colour coded according to a scale of 1=Poor (Red) and 6=Excellent (Green). By hovering over a port, the tooltip displays the following information:
    - Port Location
    - Port name
    - Country
    - Type Size
    - Health Score
    - Dwell time
    - Turnaround time
- **Countrywide Port Health Indicator:** the Country Port health score is calculated based on the deviation from a baseline value for 2 parameters:
    - Dwell time - the amount of time a vessel spends waiting to enter a particular port;

    - Turnaround time - the amount of time for a vessel to steam in, start up time, operational time and steam out time for a particular port.
- **Countrywide Dwell time and Turnaround time indicators:** these are the aggregated dwell and turnaround time indicators for all ports in the selected country. The value is in days and the colour code for the indicator is determined by the metric's deviation from it's baseline value.
- **Local Port Health Indicators**: these are the indicators for individual ports within the selected country, showing the 10 worst performing ports.

User Scenarios for MVP

Note:
Blue highlighted text refers to GSSD specific actions. Non highlighted text refers to actions taken by a user independently from the GSSD.

Scenario 1: Beirut Port Disaster

SITUATION: There has been a massive explosion in Beirut which has damaged the main port and food storage silos

As a NGO Logistics Planner
I want to determine the food commodity demand which Lebanon is experiencing, the best source of supply of the required commodity and the best means of moving the required commodity to Lebanon
So that I can ensure the food aid is provisioned to the Lebanese authorities for Humanitarian efforts and to aid the Lebanese country in its recovery efforts.

ACTION: Open the GSSD
Given: the NGO logistics planner logs in to the GSSD
When: the browser opens the GSSD
Then: GSSD visually displays World map with the default view of Global Food Security

ACTION: View Lebanon Country Map
Given: the NGO logistics planner wants to view country level detail for Lebanon
When: the NGO logistics planner selects the country view from the dropdown (top right)
Then: the Country View loads and the NGO logistics planner is able to select/search for Lebanon from the Country filter
When: User clicks on the refresh button (top right of map frame)
Then: the dashboard loads the Lebanon country view in the map and shows Lebanon Food Security map

The dashboard shows the Food Security situation for Lebanon and its provinces.Mount Lebanon has a moderately high Prevalence of Insufficient Food Consumption which means there is a shortage of food in that province.
The dashboard also shows the overall Food Supply Score which is 2 which means that the Food Supply situation is poor for the country.
The Food Staple metrics show Wheat = 1; Maize = 5; Rice = 1; Soybean = 3
[OUTCOME: The Planner can see that the supply of Wheat and Rice is poor and can reach out to the Lebanese authorities to confirm actual need and then take further action]

ACTION: Click on Port Performance to view information and status
Given: the NGO logistics planner has determined demand for Food staples and needs to assess the Transportation node health for Lebanon
When: the NGO Logistics Planner clicks on the Port Performance tab
Then: GSSD displays the Port Performance map for Lebanon.
When: User hovers over Beirut Port
Then: the GSSD displays a tooltip with Beirut Port information and status [Port Health Score = 1 (Poor)]
[OUTCOME: User can view the overall country port health = 1 (Poor), the individual port statuses and the countries Dwell and Turnaround time averages. Beirut port performance is severely degraded. Shipping into this port might not be possible.]

ACTION: Planner views the status of neighbouring Ports in Lebanon
Given: the NGO logistics planner wants to ascertain the Port status of neighbouring Ports
When: the NGO Logistics Planner hovers the mouse cursor on the nearest suitable Port to Beirut called Tripoli (2nd largest port)
Then: GSSD displays a tooltip with Tripoli Port information and status [Performance = 5 (Good)]

ACTION: NGO Logistics Planner determine nearest UN forward stocking location to Beirut and check availability of Food Staples needed for Beirut
ACTION: Planner finds that Brindisi - Italy does not have the required stocks
ACTION: Planner find next best location for food staples in Las Palmas - Spain

ACTION: Planner check the Port Status in Las Palmas
Given: the NGO logistics planner has determined food staple availability in the Las Palmas UN forward stocking location and wants to check port status
When: the NGO Logistics Planner selects Spain from the country filter
And: The user clicks on the refresh button (top right of map frame)
Then: the Spanish country map with Port Performance is displayed
When: the User hovers the mouse cursor over the Port Icon for Las Palmas
Then: GSSD displays a tooltip with Las Palmas Port information and status [Performance = 5 (Good)]

ACTION: Planner liaises with Las Palmas forward stocking location to arrange transportation from Las Palmas to Tripoli
ACTION: Planner arranges road transportation from Tripoli to Beirut or a suitable secondary location for the supply of the Food staples identified.

Scenario 2: Natural Disaster in Guatemala

SITUATION: The volcano of Fuego in Gautemala has erupted sending debris, ash and smoke high into the atmosphere. Resulting from this, a major earthquake, 7 on the Richter scale struck the area causing widespread devastation. The port of Quetzal suffered damage and in particular, the dry goods silos storing wheat, maize and rice located at the port collapsed and were destroyed.

As a NGO Logistics Planner
I want to determine best source of supply of Wheat, maize and rice and the best means of moving the required commodities to Guatemala
So that I can ensure the food aid is provisioned to the Guatemala authorities for Humanitarian efforts and to aid Guatemala in its recovery efforts.

ACTION: View Guatemala Country Map
Given: the NGO logistics planner wants to view country level detail for Lebanon
When: the NGO logistics planner selects the country view from the dropdown (top right)
Then: the Country View loads and the NGO logistics planner is able to select/search for Guatemala from the Country filter
When: User clicks on the refresh button (top right of map frame)
Then: the dashboard loads the Guatemala country view in the map and shows Guatemala Food Security map

The dashboard shows the Food Security situation for Guatemala and its provinces.
Numerous provinces are showing elevated Prevalence of Insufficient Food Consumption levels, which means there is a shortage of food in the country despite the most recent loss of dry commodities.
The dashboard also shows the overall Food Supply Score which is 3 which means that the Food Supply situation is relatively poor for the country.
The Food Staple metrics show Wheat = 1; Maize = 1; Rice = 1; Soybean = 3
[OUTCOME: The Planner can see that the supply of Wheat, maize and Rice is poor and can reach out to the Guatemalan authorities to confirm actual need and then take further action]

ACTION: Click on Hazards to view information and status
Given: the NGO logistics planner has determined demand for Food staples and needs to assess the Transportation node health for Guatemala by looking at the Hazards for Guatemala
When: the NGO Logistics Planner clicks on the Hazards tab
Then: GSSD displays the Hazards map for Guatemala.
When: User hovers over the hazards nearest the Port of Quetzal
Then: the GSSD displays a tooltip with the Hazards information and severity for the Volcanic eruption and earthquake which caused the damage to the Port of Quetzal

ACTION: Click on Port Performance to view information and status

Given: the NGO logistics planner has determined demand for Food staples and needs to assess the Transportation node health for Guatemala
When: the NGO Logistics Planner clicks on the Port Performance tab
Then: GSSD displays the Port Performance map for Guatemala.
When: User hovers over Puerto Quetzal Port
Then: the GSSD displays a tooltip with Puerto Quetzal Port information and status [Port Health Score = 1 (Poor)]
[OUTCOME: User can view the overall country port health = 2 (Relatively Poor), the individual port statuses and the countries Dwell and Turnaround time averages. Puerto Quetzal port performance is severely degraded. Shipping into this port might not be possible.]

ACTION: Planner views the status of neighbouring Ports in Guatemala
Given: the NGO logistics planner wants to ascertain the Port status of neighbouring Ports
When: the NGO Logistics Planner hovers the mouse cursor on the nearest suitable Port to Peurto Quetzal called Santo Tomas de Castilla (large port)
Then: GSSD displays a tooltip with Santo Tomas de Castilla Port information and status [Performance = 5 (Good)]

ACTION: NGO Logistics Planner determine nearest UN forward stocking location to Guatemala and checks availability of Wheat, Maize and Rice needed for Guatemala
ACTION: Planner finds that Panama City - Panama have the required stocks of these commodities

ACTION: Planner check the Port Status in Panama City
Given: the NGO logistics planner has determined food staple availability in the Panama City UN forward stocking location and wants to check port status
When: the NGO Logistics Planner selects Panama from the country filter
And: The user clicks on the refresh button (top right of map frame)
Then: the Panama country map with Port Performance is displayed
When: the User hovers the mouse cursor over the Port Icon for Balboa (Panama City)
Then: GSSD displays a tooltip with Balboa Port information and status [Performance = 5 (Good)]

ACTION: Planner liaises with Panama City forward stocking location to arrange transportation from Panama City to Port of Santo Tomas de Castilla