Challenges for Transport and Trade Connectivity from COVID 19

- **Spread Prevention**: 80% of global trade is transported by commercial shipping which can act as virus transmission channel.(Goods and Transport Documents)
- **Intermediate and Consumption goods shortage**: Fall in world trade due to lockdown by 13-32% in 2020 (WTO 2020)
- **Increase in burdensome procedures**: Due to closure or reduction of activities on border crossings
- **Disruptions in the logistics industry**: Over the whole supply chains
- **Extensive commercial law implications and proliferation of legal claims**: Delays, performance failure, contract liability, etc
- **Poorly coordinated responses**: Sometime even at the national level.
ESCWA Initiative in the field of Transport:

- A study on the quantitative effects of COVID-19 on the Transport and Logistics in the Arab region:
  - 20 Countries
  - Air, Maritime and Land Transport
- Policy recommendations:
  - Short Term: Insuring transport flows while containing the pandemic
  - Middle Term: Recovery
  - Long Term: Resilience

Need for reliable quick data

Maritime Transport: AIS Data
(In cooperation with UNCTAD)
Vessel Tracking and Identification

- MarineTraffic is an open, community-based project, which provides real-time information on the movements of ships and the current location of ships in harbors and ports.
- It was originally developed as an academic project at the University of the Aegean in Ermoupoli, Greece
- Data is gathered from more than 18,000 AIS equipped volunteer contributors in over 140 countries around the world.
- The site uses Google Maps as its base mapping.
- The site has six million unique visitors on a monthly basis.
AIS DATA – BASIC INFORMATION

The automatic identification system (AIS) is a tracking system for ships, originally developed for collision avoidance (Vessels of more than 5000 Tons)

AIS comprised of 3 information categories:

| Static: information on ship characteristics (MMSI, IMO number, call sign, ship name, type, dimensions) |
| Dynamic: information on ship movements (Ship's position (lon., lat.), speed over ground (SOG), course over ground (COG), navigation status) |
| Voyage related: information on current voyage (destination, estimated time of arrival, draught) |

Time slots of 26.6 milliseconds

Reference: Lloyd’s List Intelligence (2017). Understanding AIS.

HISTORICAL AIS DATA: PORT CALLS

Historical AIS Data Services

Historical AIS data is a valuable data source used for vessel traffic analyzes, port calling information, risk assessment and accident investigation. The data is also used for analysing the vessels movements on a global scale, potential trends in the shipping market or vessel behaviour patterns for prosecution of illegal activities.
Container Vessels Port Calls 2019/2020

Evolution of the number of Container Vessels Port Calls in the Arab region during the first 24 weeks of 2019 and 2020

Port Calls by Category of Vessels

The number of vessel port calls by type in the Arab region during the first 24 weeks of 2019 and 2020

- **Passengers**: -28.01%
- **Cargo**: -0.11%
- Increases in ship calls for some types of cargo
Automatic Dependent Surveillance–Broadcast (ADS–B)

The ADS-B system is analogous to AIS and performs a similar function for aircraft.

- ADS–B is a surveillance technology in which an aircraft determines its position via satellite navigation or other sensors and periodically broadcasts it, enabling it to be tracked.

- ADS–B is “automatic” in that it requires no pilot or external input. It is “dependent” in that it depends on data from the aircraft’s navigation system.

- ADS-B provides many benefits to both pilots and air traffic control that improve both the safety and efficiency of flight.

Passenger Flights: -53.12%

ESCWA based on ICAO Operational Impact on Air Transport

Evolution of the number of passenger flights in the Arab region, during the periods January-June 2019 and 2020

https://data.icao.int/COVID-19/
Cargo Flights + 5.48%
ESCWA based on ICAO Operational Impact on Air Transport

Evolution of the number of cargo flights in the Arab region during the periods January-June 2019 and 2020

Next Steps

• Continue the assessment for 2H 2020
• Compare with Official Data, once available in 2021
• Complement with other information on transport and trade volumes
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