

UNESCWA & Transport Statistics



Webinar on 'Motor Vehicle, Traffic Volume and
Road Traffic Accident Statistics'

4 May 2021

Shared Prosperity **Dignified Life**





Why Transport Statistics

Transport is considered a main driver for economic and social development, sustainability and impacts heavily the climate.

Mandates: SG HLAGST, UNSD, ESCWA Statistical Committee;

Transport indicators relate to eight SDGS 

The themes relate mainly to accessibility; affordability; environment and climate change; production and employment, connectivity (including rural-urban), tourism, sustainability and energy. As can be seen from the following two slides:

- Transport related indicators are found to relate to eight SDGs:

Goal 3:

Target 3.6: road safety

Goal 7:

Target 7.2 renewable energy; Target 7.3 access to clean energy and promote investment in energy infrastructure and clean energy technology.

Goal 8:

Targets 8.1, 8.3 and 8.9 promote employment, employment-intensive investments, SMEs and sustainable tourism.

Goal 9:

Resilient infrastructure, sustainable industrialization and innovation. Targets 9.1,9.3, & 9.4.

- Transport related indicators are found to relate to eight SDGs

Goal 10:

Reduce inequality within and among countries. Target 10.2 empowering and promoting the social, economic and political inclusion of all.

Goal 11:

Make cities inclusive, safe, resilient and sustainable. Target 11.2 access to safe, affordable, accessible and sustainable transport systems for all.

Goal 13:

Combat climate change. Target 13. Integrate climate change measures into national policies, strategies and planning (reduction of transport emissions).

Goal 14:

Conservation and sustainability of the oceans, seas and marine resources. Target 14.1 reducing marine pollution of all kinds.



Transport Statistics: Strategy

- Compile and disseminate transport data annually.
- Provide support to member countries to strengthen their national statistical systems in the production and dissemination of transport statistics and indicators;
- Strengthen national, regional and international coordination and collaboration to assist countries to provide high-quality transport data and statistics and to monitor progress in implementing the 2030 UN Agenda.
- Promote the harmonization of national transport statistical practices with international statistical standards, methods and concepts,
- Explore alternative and complementary data sources the new technologies provide.
- Strengthen partnerships and networks
- Harmonize and standardize the glossary of terms used



Activities/Deliverables:

- Design and prepare questionnaires on transport statistics in the Arab region
 - Assess the availability of transport data and member States' efforts to provide SDG indicators on transport;
 - Ensure the quality, completeness, sources, periodicity of dissemination, timeliness and collection methods of collected and compiled data are aligned with international and regional standards.
 - Publish collated and validated data on ESCWA's Data Portal with continuous updating.
- Standardization and publishing of Glossary of Transport Terms (English/Arabic)
 - Organization of workshops, seminars and on-line consultations
 - Capacity building and exchange of knowledge, lessons learnt, and best practices
 - Methodological papers, guidelines and case studies.
 - Networking and exchange of knowledge related to transport statistics.
 - Collaboration with UNRSF for projects on Road safety

Plan, and Implementation:





Plan and Implementation: Publications

Status of Transport Statistics in the Arab Region

Technical paper: Symbol: E/ESCWA/CL4.SIT/2020/WP.1

Issued in: 2020

<https://www.unescwa.org/publications/status-transport-statistics-arab-region>

Purpose: To provide an analysis of the responses received in the questionnaire on transport data which was sent to the national statistical offices in the Arab countries in 2009 covering the period 2005-201. The paper documents the results, highlighting the strengths and weaknesses of member countries' selected transport data and provides analysis to ensure that the data meets regional and international standards. The paper concludes with a set of recommendations directed to national statistical offices and the ESCWA secretariat on the way forward.

Complementary Data Sources for Road Transport Statistics: Use of Machine Learning in Providing Additional Insights into Road Crashes

Technical paper: Symbol: E/ESCWA/CL4.SIT/2020/TP.16

Issued in: 2021

<https://www.unescwa.org/publications/complementary-data-sources-road-transport-statistics>

Purpose: A pilot project to investigate whether the data provided by national statistical offices could be combined with other data sources, including big data, to gain a better understanding of the causes of road accidents and offer solutions to improve data collection and analysis. As member States' data could not be accessed, open data from the United Kingdom on road accidents was used, and street data from open street maps were added as an alternative source of data to present as a model of what information technology and analysis tools could achieve. The paper demonstrates the need for greater efforts to achieve more reliable results and greater consistency between machine learning and official statistics. The exercise highlighted the potential benefits of using machine learning algorithms to understand road accidents, including improved predictability.

Forthcoming

A Regional Guideline on the Statistics on the Volume of Road Traffic:
(Vehicle –Kilometer)



Plan and Implementation: Workshops

Regional Workshop on the Development of Transport Statistics and Transport Related Sustainable Development Indicators in the Arab Countries:

Beirut, Lebanon: 16-18 September 2019,

<https://www.unescwa.org/events/regional-workshop-development-transport-statistics-and-transport-related-sustainable>

Preparatory Meeting for The Regional Workshop on the Exchange of Experiences on the Collection and Dissemination of Road and Railway Transport Statistics: Statistics on The Volume of Road Traffic (Vehicle-Kilometer);

Virtual: 29 September 2020:

TEAMS; <https://www.unescwa.org/our-work/economic-statistics>; Teams link: <https://web.microsoftstream.com/video/04681133-5fcf-42fa-8a79-af8081a9b868>

The Regional Workshop on the Exchange of Experiences on the Collection and Dissemination of Road and Railway Transport Statistics: Statistics on The Volume of Road Traffic (Vehicle-Kilometer)

Virtual: 08-10 December 2020

<https://www.unescwa.org/events/regional-workshop-exchange-experiences-collection-and-dissemination-road-and-railway>

Forthcoming

A Sub-Regional workshop on the collection and dissemination of Road and Railway Transport Statistics: (TBD)



Plan and Implementation: Partnerships and Networking

- ESCWA Member States
- The United Nations Statistics Division of the Department of Economic and Social Affairs ([UNSD](https://unstats.un.org))
<https://unstats.un.org>
- The United Nations Economic Commission for Europe (UNECE) <https://unece.org/>
- European Neighborhood policy- South Countries' MEDSTAT Programme:
https://ec.europa.eu/eurostat/statistics-explained/index.php?title=MEDSTAT_programme
- International Transport Forum (ITF)/OECD
<https://www.itf-oecd.org>
- The Arab Institute for Training and Research in Statistics (AITRS) <http://www.aitrs.org/?q=en>
- The United Nations Road Safety Fund (UNRSF) <https://unece.org/un-road-safety-fund>
- UN Habitat <https://unhabitat.org/>
- The Global Network of Data Officers and Statisticians /UNSD
https://www.yammer.com/unstats/?trk_event=dd_network_click&allow_app_redirect=1#/home?trk_event=dd_network_click&allow_app_redirect=1
- Independent experts and Academia
- SESRIC Statistics and Information Department



Plan and Implementation: Partnerships and Networking

- ESCWA Member States
- The United Nations Statistics Division of the Department of Economic and Social Affairs ([UNSD](https://unstats.un.org)) <https://unstats.un.org> (**UNSTATS commission**)
- The United Nations Economic Commission for Europe (UNECE) <https://unece.org/> (**Close collaboration in holding workshops and peer review of Publications/ Technical papers**)
- European Neighborhood policy- South Countries' MEDSTAT Programme: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=MEDSTAT_programme (**Close collaboration in holding workshops and peer review of Publications/ Technical papers**)
- International Transport Forum (ITF)/OECD <https://www.itf-oecd.org> (**Close collaboration in holding workshops and peer review of Publications/ Technical papers**)
- The Arab Institute for Training and Research in Statistics (AITRS) <http://www.aitrs.org/?q=en> (**Joint activities including co-organization of workshops to Arab countries**)
- The United Nations Road Safety Fund (UNRSF) <https://unece.org/un-road-safety-fund> (**Review of project proposal submitted from ESCWA member countries on road safety, and submission of an ESCWA regional project proposal and follow up with the fund to gain their approval**)
- UN Habitat <https://unhabitat.org/> (**Joint activités and close collaboration**)
- The Global Network of Data Officers and Statisticians /UNSD https://www.yammer.com/unstats/?trk_event=dd_network_click&allow_app_redirect=1#/home?trk_event=dd_network_click&allow_app_redirect=1 (**participation in the network and creation of a Transport statistics group together with ECE on the platform**)
- Independent experts and Academia (**Peer review and participation in workshops**)
- SESRIC Statistics and Information Department (**Collaboration in this workshop and look forward that it will open a window for future collaboration**)



Plan, and Implementation: Data and Statistics

- Development of transport statistics, indicators and transport related sustainable development indicators' data base and dashboard for the Arab Countries.
- The transport statistics and indicators are collected from National Statistical Offices(NSOs).
- Validation takes place inhouse and in collaboration with the NSOs
- ESCWA seeks to ensure that the data collected and disseminated/published is
 - timely,
 - periodic,
 - harmonious, and harmonized
 - comparable,
 - aligned with the international standards

DATA: Implementation: content and phases

- First questionnaire developed and launched in 2019
- Questionnaire included chapters on:
 - Glossary of terms,
 - SDG indicators,
 - Road and Railway transport,
 - Air transport,
 - Maritime transport ,
 - Road safety indicators (number of accidents; number of wounded and killed disaggregated by sex, and age cohorts)
 - Employment in transport
- The modal indicators included infrastructure, equipment , and economic measures,
- ESCWA received responses from 14 Arab countries,
- Data received was cleaned, and validated with back and forth consultations with member countries
- Data uploaded on EOSIS and later on data portal (2020)
- Second round of updating is currently ongoing(2020-2021)

Current Work :

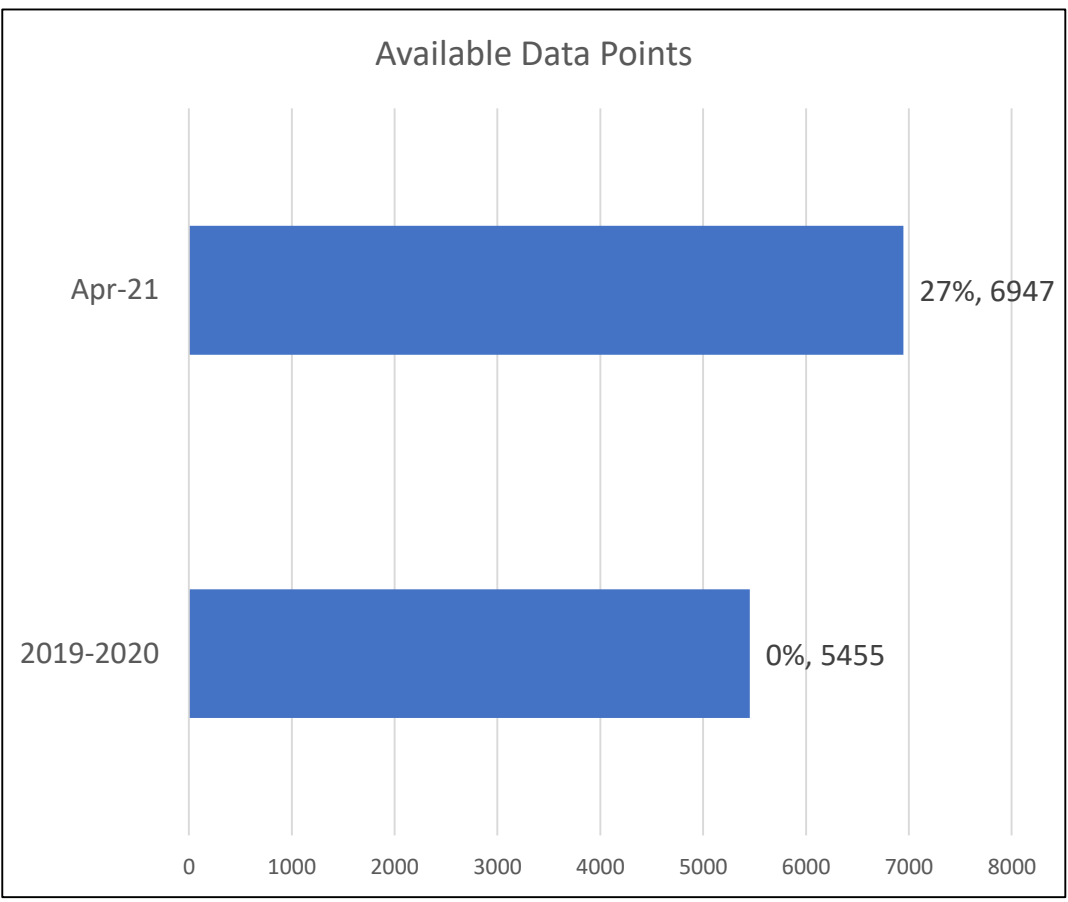
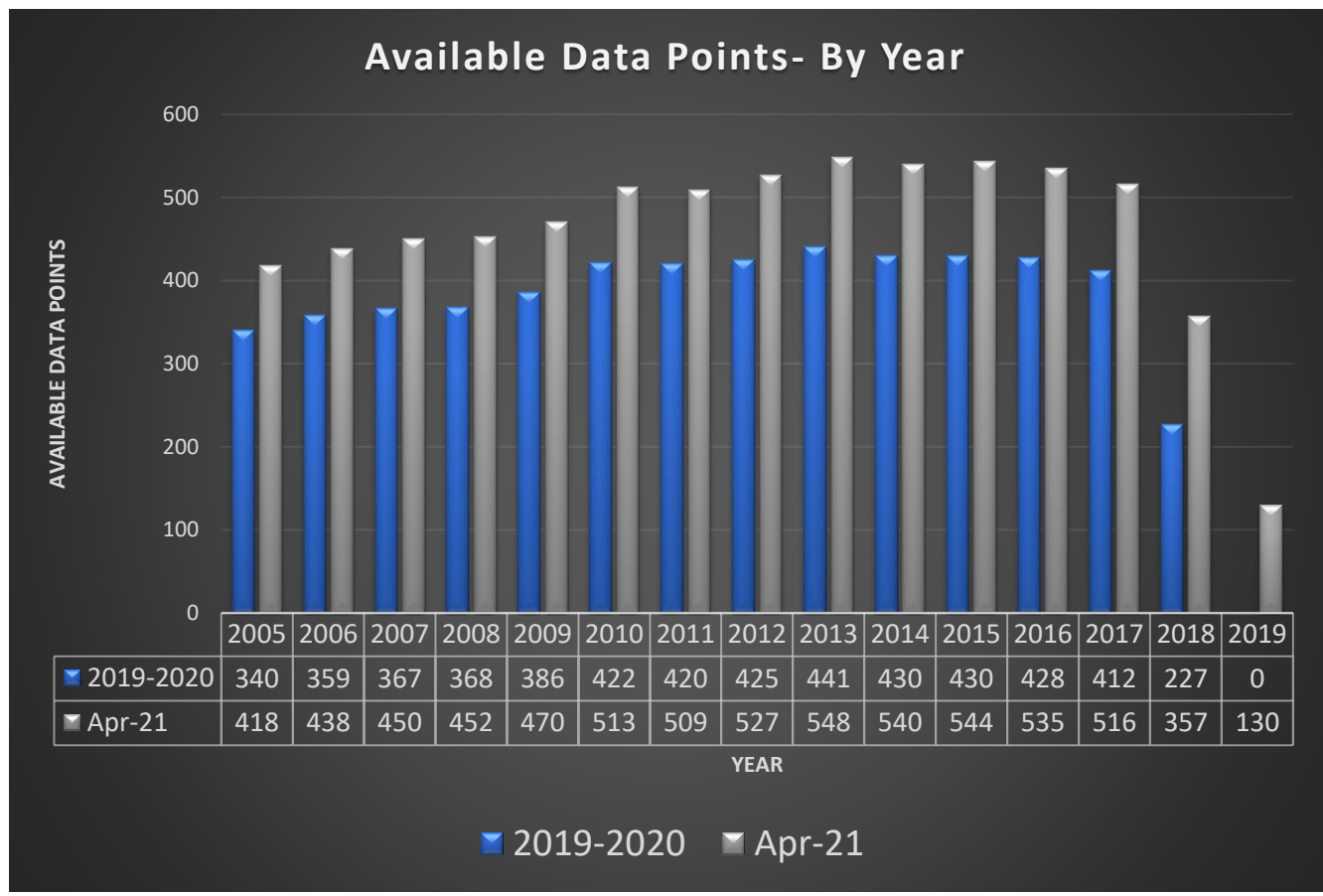
- Review and update transport data (NSOs' websites, related ministries' websites).
- Data of 5 additional countries were collected from official web sources (Bahrain, KSA, Algeria, Libya, Somalia).(UAE , Comoros and Djibouti's data are still missing)
- Review and updating Transport Glossary (ENG-AR) .
- Prepare Transport Data Quality Reports and data availability reports
- Data validation
- New transport data questionnaire to address the issues met in the first questionnaire :
- To send the new questionnaire to the countries' NSOs to validate, update fill the gaps and respond to our remarks.

issues

- **Sources of data:** Data is extracted from the databases and publications of the NSOs and other referenced material;
- **Comprehensiveness, reliability, timeliness and completeness of data:** Lack in data over years, over sectors, and subsectors; interruptions in reporting; missing reporting dates of updates, and no mention on revisions of data;
- **Issues relating to definitions, harmonization and comparability of data:** Comparability of data is contentious because of lack to mention the necessary definitions, methodology used, metadata and consistency with international standards.

Survey's Results and Data Overview

Number of respondents to the 2019 survey	14
Total number of collected indicators- 2019 survey	70
Total number of updated indicators-2021	72
Total number of countries after 2021 updates	19
Added Countries- Data from NSOs websites	5 (Bahrain, Algeria, KSA, Libya, Somalia)



Availability of Data Points

Available Number of Countries- By Subcategory

Sub Category	Available Number of Countries		Number of Added Countries
	2019-2020	April 2021	
air transport equipment	3	3	0
air transport infrastructure	10	10	0
air transport measure	14	18	4
employment in transportation	6	7	0
marine infrastructure	7	9	0
measure of maritime transport	13	17	3
rail transport equipment	7	9	0
rail transport infrastructure	8	9	0
rail transport measure	7	9	0
road safety/accidents	14	19	5
road transport equipment-vehicle inventory	13	16	2
road transport infrastructure	14	18	4
road transport measure /passengers	5	5	0
road transport measure/ freight	3	4	0

Number of Available Data (cells) by Category By Year and Totals (14 respondent countries to Q 1)

Category	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Totals
air transport	112	122	117	118	119	118	110	115	118	108	108	109	110	58	1542
employment	3	3	5	7	7	14	9	14	15	15	15	15	15	3	140
marine transport	67	70	69	72	75	78	80	80	84	82	82	76	72	45	1032
railway transport	45	44	44	45	46	48	44	44	45	45	45	53	52	25	625
road transport	113	120	132	126	139	164	177	172	179	180	180	175	163	96	2116

Data Portal:

- Data: <https://data.unescwa.org/portal/79a73daa-8d9e-47dd-b1ee-bfed2b22124e>
- Visuals: <https://data.unescwa.org/portal/f1f8538f-0d9a-412a-a18e-e6ff638b2d8b>

Thank you



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