

# HEALTH - A UNITING REGIONAL SUSTAINABLE DEVELOPMENT GOAL ?

**Rima R. Habib, PhD, MPH, MOHS**

*Professor and Chair - Department of Environmental Health  
Faculty of Health Sciences - American University of Beirut  
[rima.habib@aub.edu.lb](mailto:rima.habib@aub.edu.lb)*

**Nataly W. El-Haddad, BS and Shelby Surdyk, MS**

*Tuesday 10 November 2020*



## HEALTH AS A REGIONAL SUSTAINABLE DEVELOPMENT GOAL

RIMA R. HABIB, NATALY W. EL-HADDAD, SHELBY SURDYK



# September 2015: The 2030 Agenda for Sustainable Development





# 3 GOOD HEALTH AND WELL-BEING



## SDG 3

### Ensure healthy lives and promote wellbeing for all at all ages

#### Target 3.1

By 2030, reduce the global **maternal mortality** ratio to less than 70 per 100 000 live births.

#### Target 3.5

Strengthen the prevention and treatment of **substance abuse**, including narcotic drug abuse and harmful use of alcohol.

#### Target 3.2

By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce **neonatal mortality** to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25 per 1000 live births.

#### Target 3.6

By 2020, halve the number of global deaths and injuries from **road traffic accidents**.

#### Target 3.3

By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other **communicable diseases**.

#### Target 3.7

By 2030, ensure universal access to **sexual and reproductive health-care** services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

#### Target 3.4

By 2030, reduce by one third premature mortality from **non-communicable diseases** through prevention and treatment and promote mental health and well-being.

#### Target 3.8

Achieve **universal health coverage**, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

#### Target 3.9

By 2030, substantially **reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination**.

#### Target 3.A

Strengthen the implementation of the WHO Framework Convention on **Tobacco Control** in all countries, as appropriate.

#### Target 3.B

Support the **research and development** of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.

#### Target 3.C

Substantially **increase health financing** and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

#### Target 3.D

Strengthen the capacity of all countries, in particular developing countries, for **early warning, risk reduction and management of national and global health risks**.

### Means of Implementation

# How is the Arab World doing on SDG 3: health and wellbeing?



# SDG Progress in The Arab World

## SDGs

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Algeria	↗	→	↗	↗	↗	↗	↗	→	↗	..	↗	..	→	→	↗	↗	↗
Bahrain	..	..	↗	↗	→	↑	↗	↗	→	..	→	..	↑	↗	↓	→	..
Comoros	→	→	→	↓	→	↓	↗	↗	→	..	→	..	↑	↓	↓	↗	↓
Djibouti	↑	→	→	→	↗	→	→	→	↑	..	↓	..	↑	↓	↓	→	↑
Egypt	↗	↗	↗	↗	→	↗	↗	↗	↗	..	→	..	↑	→	↗	→	↑
Iraq	↗	→	→	..	→	↗	↗	→	→	..	→	..	→	→	↓	→	↓
Jordan	→	→	↗	↓	→	↑	↗	→	↗	..	↗	..	↑	→	↑	↗	→
Kuwait	..	↗	↗	→	→	↑	→	↗	↗	..	↓	..	↗	↓	→	→	..
Lebanon	↑	→	↗	↗	→	↑	↗	→	↗	..	↓	..	↑	→	↗	→	↓
Libya	..	↓	→	..	→	↗	↗	→	→	..	↓	..	↗	→	↗	↓	↗
Mauritania	↑	↓	→	→	→	↗	↗	→	→	..	↓	..	↑	→	↗	→	↓
Morocco	↗	→	↗	→	↗	↑	↗	→	↗	..	→	..	↑	→	↓	↗	↓
Oman	..	→	↑	↗	→	↑	↗	↗	↗	..	↓	..	↗	→	↓	↗	..
Qatar	..	..	↗	↗	↗	↑	↗	↗	↗	..	↓	..	↓	→	↓	↗	..
Saudi Arabia	..	→	↗	↗	↓	↑	↗	↗	↑	..	→	..	↓	→	↗	↓	..
Somalia	→	→	→	..	↗	↓	→	↗	→	..	↓	..	↑	→	↓	→	↗
Palestine	→	..	↗	↗	→	→	↗	→	..	..	..	..	..	..	..	..	↓
Sudan	↓	↗	↗	→	→	→	↗	↗	↗	..	↓	..	↑	↗	↑	↗	↑
Syria	..	↓	↗	↓	↓	→	→	↗	→	..	↓	..	↓	→	↗	→	↓
Tunisia	↗	↗	↗	→	→	↑	↗	→	→	..	↓	..	↑	→	↗	↗	↓
UAE	..	↗	↗	↗	→	↑	↗	↑	↑	..	→	..	↓	↗	→	↗	..
Yemen	..	↓	→	→	→	↑	→	→	↗	..	↗	..	↑	→	↓	↓	↓

↑ On track or maintaining  
SDG achievement

↗ Moderately Increasing

→ Stagnating

↓ Decreasing

.. Data not available

*Data based on trend years ranging  
between 2010 and 2018.*

# Disparities in Maternal Mortality and Hepatitis B

SDG 3 Indicator	LIC <sup>1</sup>	MIC <sup>2</sup>		HIC <sup>3</sup>
<b>3.1.1</b> <b>Maternal mortality ratio</b> <b>[per 100,000 live births],</b> <b>2015</b>	<u>732 [Somalia]</u> <u>385 [Yemen]</u> 68 [Syria]	33 [Egypt] 45 [Palestine] 62 [Tunisia] 121-602 [others]	140 [Algeria] 9-58 [others]	<u>4 [Kuwait]</u> <u>6 [UAE]</u> <u>12 [Saudi Arabia]</u> 13-17 [others]
<b>3.3.4</b> <b>Hepatitis B prevalence [%],</b> <b>2015</b>	10.54 [Somalia] 2.54 [Yemen] 0.37 [Syria]	1.96-4.29 [Comoros, Mauritania] 0.45-0.8 [others]	0.06-1.01 (Algeria, Iraq, & others)	0.08-0.44 (Qatar, UAE, Saudi Arabia & others)

Based on World Bank 2020 Classification.

<sup>1</sup> **LIC**: Somalia, Sudan, Syria Arab Republic, Yemen

<sup>2</sup> **MIC**: Algeria, Comoros, Djibouti, Egypt, Iraq, Jordan, Lebanon, Libya, Mauritania, Morocco, Palestine (West Bank and Gaza), Tunisia

<sup>3</sup> **HIC**: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates

WHO. (2019). *World health statistics 2019: monitoring health for the SDGs, sustainable development goals*. Retrieved from Geneva: <https://apps.who.int/iris/bitstream/handle/10665/324835/9789241565707-eng.pdf>.

World Bank. (July 1, 2019). World Bank Country and Lending Groups (Fiscal Year 2020). Retrieved in February 2020 from: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.

Luomi, M., et al. (2019). *Arab Region SDG Index and Dashboards Report 2019*. Retrieved from Abu Dhabi and New York: SDG Centre of Excellence for the Arab Region/Emirates Diplomatic Academy and Sustainable Development Solutions Network: <https://sdgindex.org/reports/2019-arab-region-sdg-index-and-dashboards-report/>.



# Disparities between Neighboring Countries



Under-5 Mortality = 12 per 1,000 live births  
WASH Mortality = 0.1 per 100,000 population

Under-5 Mortality = 385 per 1,000 live births  
WASH Mortality = 10.2 per 100,000 population

Under-5 Mortality = 17 per 1,000 live births  
Neonatal Mortality = 9 per 1,000 live births

Under-5 Mortality = 8 per 1,000 live births  
Neonatal Mortality = 5 per 1,000 live births





# Armed Conflict: A Major Challenge to Achieving SDGs

- Armed conflict impedes SDG progress and global health improvement

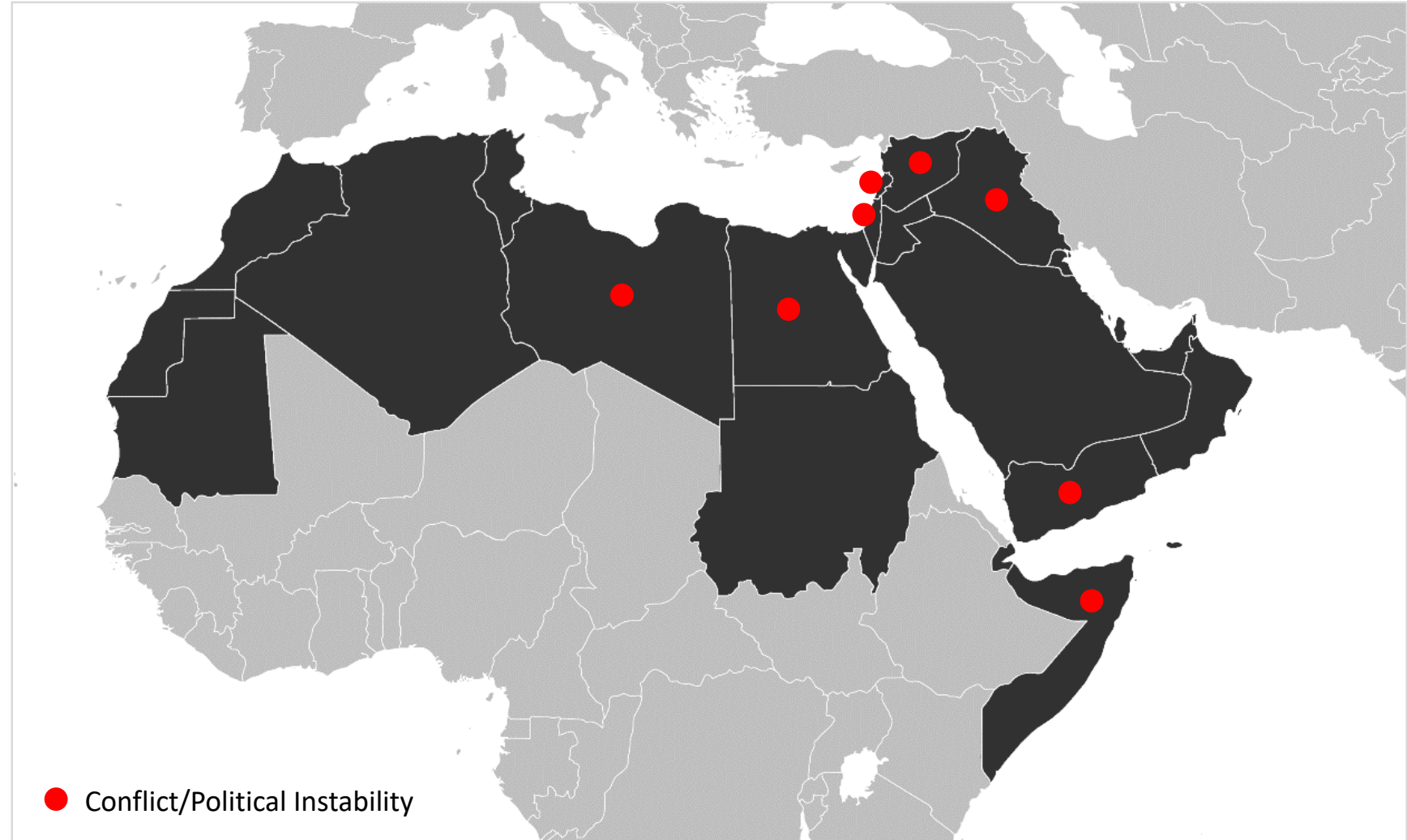


# Armed Conflicts and Displacement

## ■ 8 Arab Countries in conflict or political instability:

- Yemen
- Syria
- Libya
- Palestine
- Somalia
- Egypt
- Iraq
- Lebanon

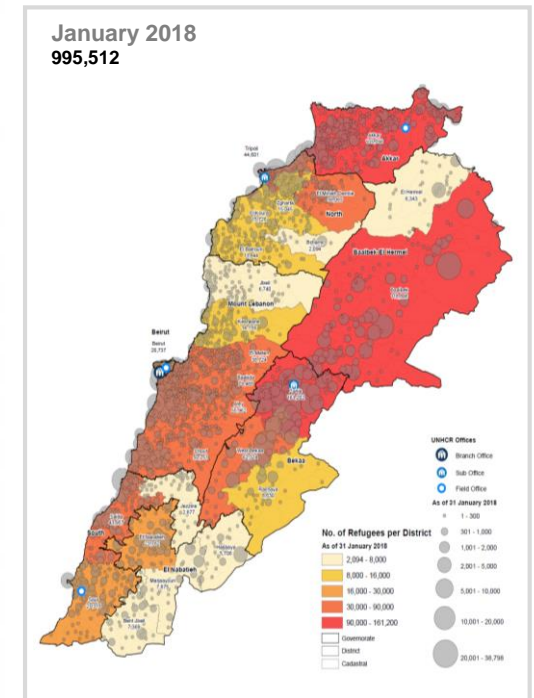
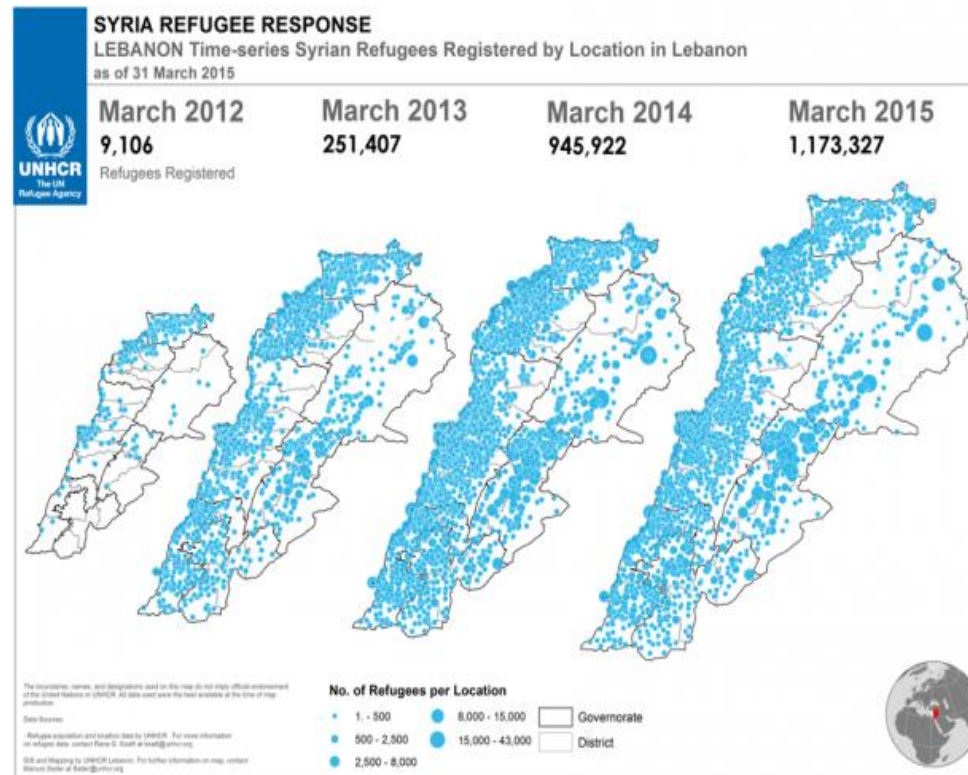
## Fragile State Index



# Displacements Resulting from Armed Conflicts in the Arab World

- Armed conflicts impacts **trespass boundaries**.
- **6.7 million Syrian refugees** fled to Lebanon, Jordan, Turkey, Europe, and other countries following the 2011 war in Syria.

- Lebanon received over **1 million** Syrian refugees



# Impact of Armed Conflicts on Health

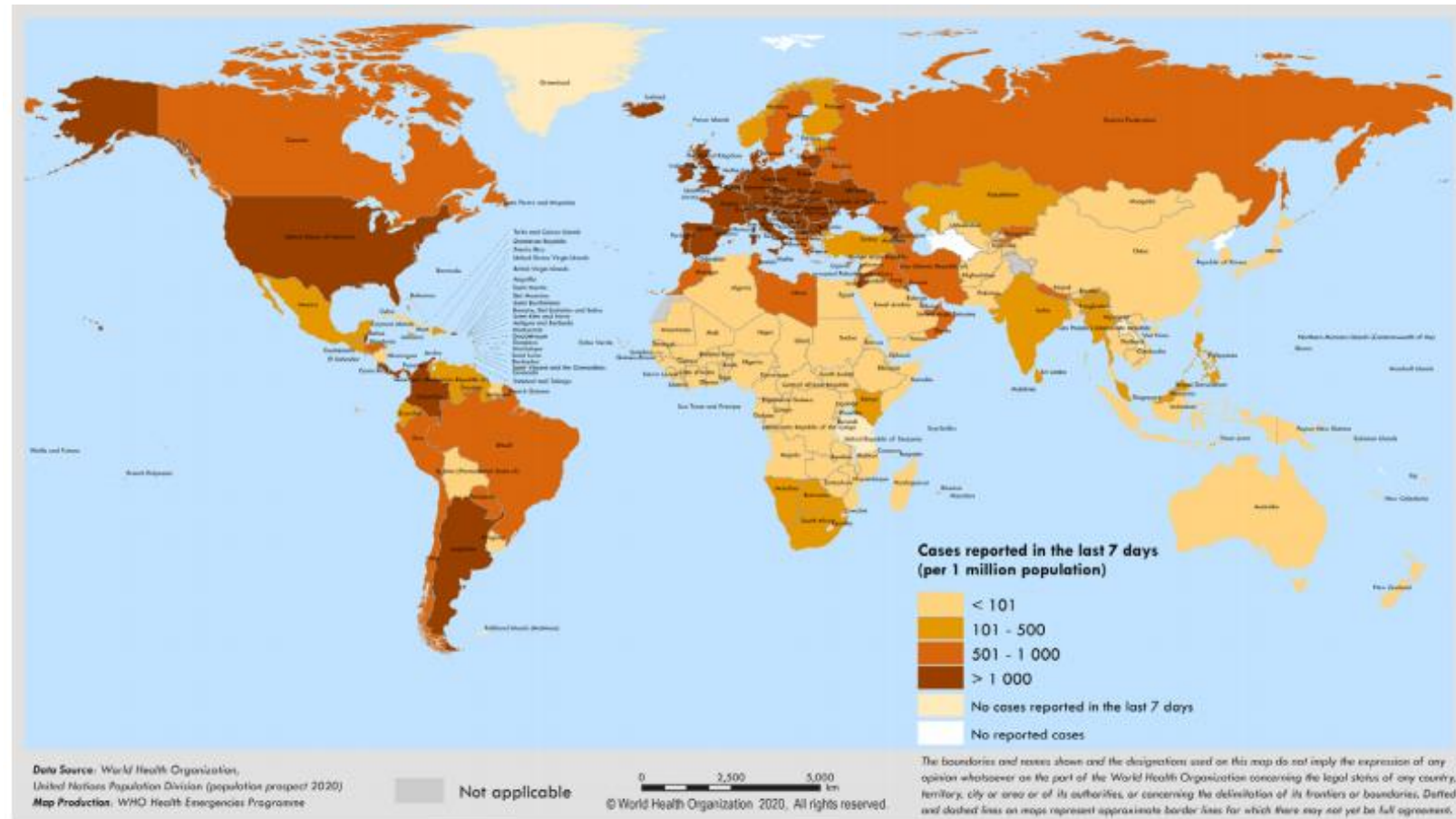
- Casualties, displacement, political instability, destruction of healthcare systems, unemployment, poverty, and harsh consequences on public health
- Recent study on 193 countries (1990-2017) found:
  - Armed conflict was associated with increases in civilian mortality.
    - Wars → 81.5 per 100,000 population (29.4 million civilian deaths globally)
  - Mortality rates associated to war increased:
    - Communicable, maternal, neonatal, and nutritional diseases = 21 million deaths
    - Non-communicable diseases = 6 million deaths
    - Injuries = 2.4 million deaths



# Novel Coronavirus Disease – The COVID-19 Pandemic

- COVID-19 global spread
- Declared by WHO as a Pandemic and a global Public Health Emergency on March 11, 2020.

COVID-19 cases per million population reported by countries between 26 October and 1 November 2020



# COVID-19 Case-Fatality Ratios in the Arab World as of September 30, 2020

- COVID-19 Dashboard

*Johns Hopkins University*

- Stretched resources and inadequate testing capacity
- A high risk to countries with vulnerable health systems



$$\text{CaseFatality Ratio} = \frac{\# \text{ Deaths}}{\# \text{ Cases}}$$

# Strict COVID-19 Control Measures → Economic Strain

- Control measures:
  - Social distancing
  - Airport closure
  - Country lockdowns
- Measures resulted economic strains
- KSA: Hajj season in 2020 scaled-back to 10,000 local pilgrims compared to 2.5 millions in 2019



# Economic Impacts of COVID-19

- UN-ESCWA estimates for the Arab Region:
  - Loss of **\$42 billion** and **1.7 million jobs** is expected in 2020
  - Loss of **\$420 billion** in market capital and **\$11 billion** in net oil revenues between January and mid-March 2020
- A ripple effect spread to remittance-dependent Arab Countries.





# Case Study: Lebanon

Political instability

Economic Collapse

COVID-19 outbreak

Environmental health disaster: *The Blast*

# Lebanon Beirut Port Explosion – August 4, 2020

- One of the most powerful explosions in history



# Beirut Port Explosion Destruction – Massive Destruction

Killed >200 - Injured >6500





# Lebanon's humanitarian crisis escalates after the Beirut blast

Abouzeid, M, Habib, R R, Jabbour, S, Mokdad, A H, & Nuwayhid, I

- Currency devalued by around **80%**
- Extreme **capital control** measures
- Food price inflation up to **200%**
- Poverty rate increased from **28%** in 2019 to **55%** in May 2020
  - **23%** of the population in extreme poverty
- Essential medicine shortages
- Health personnel lay-offs and emigration
  - Reduced hospital services
- COVID-19 cases tripled due to poor emergency preparedness & state fragility.

## THE LANCET



Joseph Eid/Getty Images

Published Online

September 10, 2020

[https://doi.org/10.1016/S0140-6736\(20\)31908-5](https://doi.org/10.1016/S0140-6736(20)31908-5)



**Explosion at Port  
August 4, 2020**



**Post-Explosion destruction  
After August 4, 2020**



**Fire at Port  
September 10, 2020**



**Tornado at Port  
October 22, 2020**



# Revisiting the SDG Index and Dashboards Report for the Arab World, 2019 ...

	SDGs																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Algeria	↗	→	↗	↗	↗	↗	↗	→	↗	..	↗	..	→	→	↗	↗	↗
Bahrain	..	..	↗	↗	→	↑	↗	↗	→	..	→	..	↑	↗	↓	→	..
Comoros	→	→	→	↓	→	↓	↗	↗	→	..	→	..	↑	↓	↓	↗	↓
Djibouti	↑	→	→	→	↗	→	→	→	↑	..	↓	..	↑	↓	↓	→	↑
Egypt	↗	↗	↗	↗	→	↗	↗	↗	↗	..	→	..	↑	→	↗	→	↑
Iraq	↗	→	→	..	→	↗	↗	→	→	..	→	..	→	→	↓	→	↓
Jordan	→	→	↗	↓	→	↑	↗	→	↗	..	↗	..	↑	→	↑	↗	→
Kuwait	..	↗	↗	→	→	↑	→	↗	↗	..	↓	..	↗	↓	→	→	..
Lebanon	↑	→	↗	↗	→	↑	↗	→	↗	..	↓	..	↑	→	↗	→	↓
Libya	..	↓	→	..	→	↗	↗	→	→	..	↓	..	↗	→	↗	↓	↗
Mauritania	↑	↓	→	→	→	↗	↗	→	→	..	↓	..	↑	→	↗	→	↓
Morocco	↗	→	↗	→	↗	↑	↗	→	↗	..	→	..	↑	→	↓	↗	↓
Oman	..	→	↑	↗	→	↑	↗	↗	↗	..	↓	..	↗	→	↓	↗	..
Qatar	..	..	↗	↗	↗	↑	↗	↗	↗	..	↓	..	↓	→	↓	↗	..
Saudi Arabia	..	→	↗	↗	↓	↑	↗	↗	↑	..	→	..	↓	→	↗	↓	..
Somalia	→	→	→	..	↗	↓	→	↗	→	..	↓	..	↑	→	↓	→	↗
Palestine	→	..	↗	↗	→	→	↗	→	..	..	..	..	..	..	..	..	↓
Sudan	↓	↗	↗	→	→	→	↗	↗	↗	..	↓	..	↑	↗	↑	↗	↑
Syria	..	↓	↗	↓	↓	→	→	↗	→	..	↓	..	↓	→	↗	→	↓
Tunisia	↗	↗	↗	→	→	↑	↗	→	→	..	↓	..	↑	→	↗	↗	↓
UAE	..	↗	↗	↗	→	↑	↗	↑	↑	..	→	..	↓	↗	→	↗	..
Yemen	..	↓	→	→	→	↑	→	→	↗	..	↗	..	↑	→	↓	↓	↓

↑ On track or maintaining SDG achievement  
 ↗ Moderately Increasing  
 → Stagnating  
 ↓ Decreasing  
 .. Data not available

**What is next?**

# Can Health unite the Arab Countries to reach the SDG targets?

- Viruses spread beyond borders.
- Countries cannot have health and safety policies in isolation of their neighbors.

إذا جارك بخير، انت بخير

- Health for all is a necessity!





# References

1. United Nations [UN]. (2015). SUSTAINABLE DEVELOPMENT GOALS. Retrieved from <https://sustainabledevelopment.un.org/sdgs> (image).
2. United Nations General Assembly. (2015). A/RES/70/1 - Transforming our world: the 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly on 25 September 2015.
3. United Nations [UN]. (2015). SUSTAINABLE DEVELOPMENT GOAL 3. Retrieved from <https://sustainabledevelopment.un.org/sdg3>.
4. Luomi, M., et al. (2019). Arab Region SDG Index and Dashboards Report 2019. Retrieved from Abu Dhabi nd New York: SDG Centre of Excellence for the Arab Region/Emirates Diplomatic Academy and Sustainable Development Solutions Network: <https://sdgindex.org/reports/2019-arab-region-sdg-index-and-dashboards-report/> .
5. WHO. (2019). World health statistics 2019: monitoring health for the SDGs, sustainable development goals. Retrieved from Geneva: <https://apps.who.int/iris/bitstream/handle/10665/324835/9789241565707-eng.pdf>.
6. World Bank. (July 1, 2019). World Bank Country and Lending Groups (Fiscal Year 2020). Retrieved in February 2020 from: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups> .
7. Luomi, M., et al. (2019). Arab Region SDG Index and Dashboards Report 2019. Retrieved from Abu Dhabi nd New York: SDG Centre of Excellence for the Arab Region/Emirates Diplomatic Academy and Sustainable Development Solutions Network: <https://sdgindex.org/reports/2019-arab-region-sdg-index-and-dashboards-report/> .
8. WHO. (2019). World health statistics 2019: monitoring health for the SDGs, sustainable development goals. Retrieved from Geneva: <https://apps.who.int/iris/bitstream/handle/10665/324835/9789241565707-eng.pdf>.
9. UN Chronicle. (2015). Implementing the 2030 Agenda: the challenge of conflict [online]. LII(4). Available at: <https://www.un.org/en/issue/379> .
10. Council on Foreign Relations. (2020, June 1). Global Conflict Tracker: by Conflict Status. Retrieved from <https://www.cfr.org/interactive/global-conflict-tracker?category=usConflictStatus> .
11. Fund For Peace [FFP]. (2020). Fragile State Index - Annual Report 2020. Retrieved from Fund For Peace, Washington, D.C.: <https://fragilestatesindex.org/2020/05/08/fragile-states-index-2020-annual-report/> .
12. UNHCR. (2019). Global trends: forced displacement in 2018. Retrieved from <https://www.unhcr.org/globaltrends2018/> .
13. Maps retrieved from (2016) <http://www.bpb.de/gesellschaft/migration/laenderprofile/233345/refugee-crisis-and-unhcr> & (2018) <https://data2.unhcr.org/en/documents/download/62222>
14. Jawad, M. et al. (2020). Estimating indirect mortality impacts of armed conflict in civilian populations: panel regression analyses of 193 countries, 1990–2017. BMC Med 18, 266. <https://doi.org/10.1186/s12916-020-01708-5> .
15. WHO. (March 11, 2020). Coronavirus disease (COVID-19) pandemic. <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19>

# References

16. WHO. (Nov. 3, 2020). Coronavirus disease 2019 (COVID-19): Weekly Epidemiological Update – 3 November 2020. Retrieved from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/> (map).
17. Dong, E., Du, H., & Gardner, L. (2020). An interactive web-based dashboard to track COVID-19 in real time. *The Lancet Infectious Diseases*, 20(5), 533-534. doi:10.1016/s1473-3099(20)30120-1 .
18. Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). (2020, May 15). COVID-19 Map: Case-Fatality Ratios. COVID-19 Dashboard. Retrieved from <https://coronavirus.jhu.edu/> .
19. Al Jazeera. (2020, March 31). Saudi tells Muslims to wait on Hajj plans amid coronavirus crisis. Al Jazeera. Retrieved from <https://bit.ly/2XFan15> .
20. Parviz, S. (2020, May 15). Saudis react to economic squeeze. *Tehran Times*. Retrieved from <https://www.tehrantimes.com/news/447872/Saudis-react-to-economic-squeeze> .
21. Liubchenkova, N. (2020, Jul 31). Interactive: See how COVID-19 has dramatically changed Hajj pilgrimage. Retrieved from EuroNews: <https://bit.ly/39QM1Gi> (+Image).
22. Abdellatif, A., & Hsu, E. (2020, March 31). Grappling with a crisis like no other: the fragility of Arab countries in the face of COVID-19. Medium. UNDP Arabic. Retrieved from <https://bit.ly/3hskZDd> .
23. UN-ESCWA. (2020). COVID-19 Economic Cost to the Arab Region. Policy Brief. Retrieved from <https://www.unescwa.org/sites/www.unescwa.org/files/escwa-covid-19-economic-cost-arab-region-en.pdf>.
24. UN. (2020, Apr 1). Coronavirus pandemic threatens to plunge millions in Arab region into poverty and food insecurity. UN News. Retrieved from <https://news.un.org/en/story/2020/04/1060822>.
25. Barua, S. (2020). Understanding Coronanomics: The economic implications of the coronavirus (COVID-19) pandemic. *SSRN Electronic Journal*.
26. Amos, J & Rincon, P. (Oct 5, 2020). Beirut blast was 'historically' powerful. BBC News. Retrieved from <https://www.bbc.com/news/science-environment-54420033> .
27. Ghantous G. (Aug 30, 2020). Beirut port blast death toll rises to 190. Reuters. Available at: <https://reut.rs/3mWt3Dm>
28. L'Orient Du Jour. (Oct. 27, 2020). Everything you need to know to start your Tuesday. Available at: <https://today.lorientlejour.com/article/1238342/everything-you-need-to-know-to-start-your-tuesday.html>
29. Abouzeid, M., Habib, R. R., Jabbour, S., Mokdad, A. H., & Nuwayhid, I. (2020). Lebanon's humanitarian crisis escalates after the Beirut blast. *The Lancet*. doi:10.1016/s0140-6736(20)31908-5.
30. Perry, T & Kanaan, A. (Sept. 10, 2020). Huge blaze at Beirut port alarms residents a month after massive blast. Reuters. Available at: <https://www.reuters.com/article/us-lebanon-crisis-fire-idUSKBN2611PH>

# Thank You

[rima.habib@aub.edu.lb](mailto:rima.habib@aub.edu.lb)