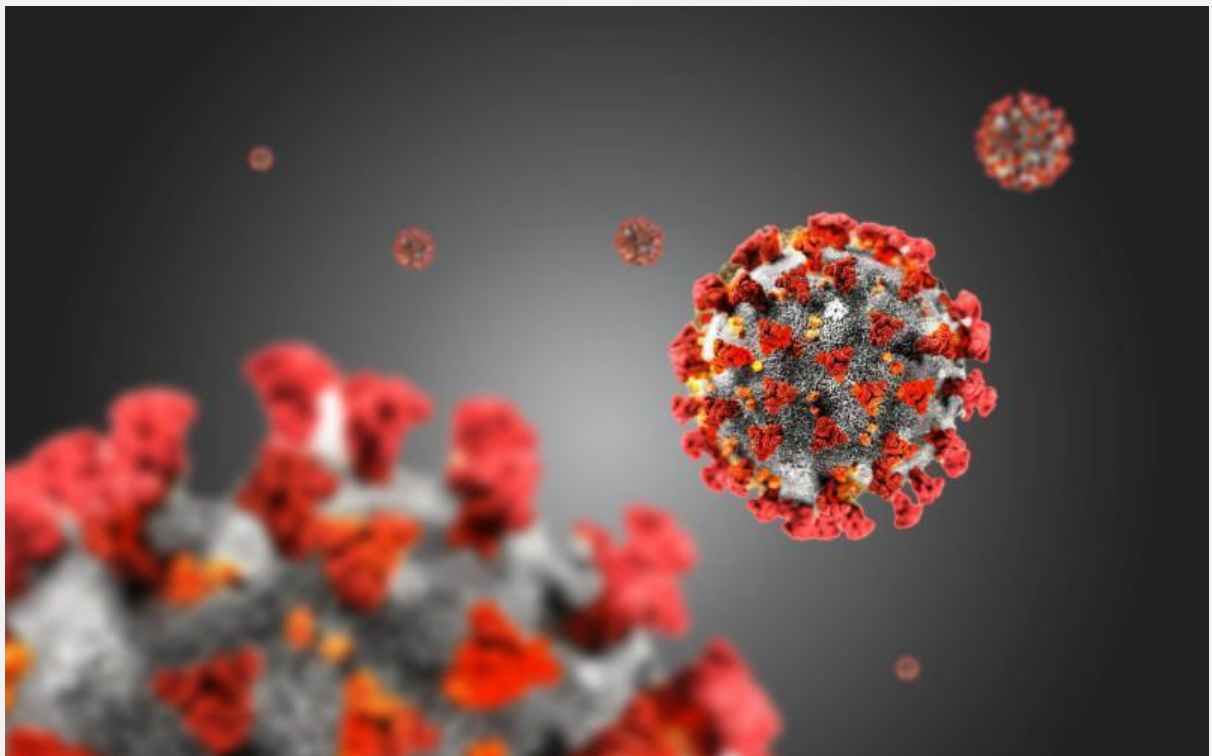




ECOSF

COVID 19 in the ECO Region: Impact, Status of Health Care and ICT Infrastructure, and Response by the Member States



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COVID-19 in the ECO region

With current outbreak of the COVID-19, the pandemic has now spread in nearly all regions of the world. As this crisis unfolds, it highlights the importance of healthcare facilities and preparedness to respond to this crisis. Although, no country has been fully prepared for the pandemics of this scale; this virus does not know any borders, all countries must prioritize and exercise the capabilities required to prevent, detect, and rapidly respond to public health emergencies.

The COVID-19 has exposed the fragile limits of healthcare facilities and infrastructures around the world. Even in the countries with best healthcare system, their overall preparedness seems to be weak in handling this situation. However, situation is even worse when it comes to the developing world. Many developing countries lack the health capacities and capabilities that are needed to detect, and respond to significant infectious disease outbreaks.

It is even more challenging when we think of resource-limited regions with poor sanitation and weak health systems, which is actually the case in some of the ECO Member Countries. The COVID-19 outbreak is creating significant additional pressure on an already overburdened health system in the Member Countries.

This brief is an attempt to assess the status of healthcare and ICT infrastructure in the ECO Member Countries and how these countries have responded during the outbreak of this this pandemic. Almost all ECO Countries are under the state of emergency; where schools, universities, workspace, cinemas, and sports venues are currently closed and air travel remains suspended.

Iran was one of the world's early COVID-19 hotspots and the first country amongst ECO Member Countries to have reported the cases of COVID-19. Since then the virus has spread rapidly in the country. Soon Iran was declared one of the world's coronavirus epicenters after China, with the death toll surpassing 5900 and the number of cases topping 93,000. Iran faces serious challenges to respond to the pandemic, amidst the sanctions against global trade, cutting into its crude oil sales, banking and other industries. The coronavirus, coming on top of the economic struggles of the sanctions, is increasingly hitting Iran's already struggling economy.

Presently, Turkey has exceeded Iran and has highest number of confirmed cases of COVID-19ⁱⁱ. As of writing, the official number of cases in Turkey stands at 117,589, the seventh highest total in the worldⁱⁱⁱ. However, despite highest rate of infection, Turkey has managed to keep its death rate quite low^{iv}. The low death rate can be attributed to the Turkey's well developed healthcare system, and aggressive testing capacity along with emphasis on early diagnosis.

Despite the lower confirmed cases than Turkey, Iran has the highest number of confirmed deaths in the ECO region and that is almost double that of Turkey. Meanwhile, Turkish health authorities have signaled that the country is at the peak point of outbreak, as the daily deaths are appearing to slow down^v. Besides, the recent numbers indicate that Turkey has brought the outbreak under control. The following charts 1 and 2 present the confirmed number of cases and deaths in the ECO Member Countries as of April 30, 2020. Good news is that Tajikistan and Turkmenistan have not reported any case, so far.

Compared to its high population density in the ECO region, Pakistan has lower cases of COVID 19. As of April 30, the total number of positive and confirmed deaths stood at 15,500 and 340 respectively. Many argue that actual numbers may be significantly high but due to low rate of testing, the positive cases go undetected and hence the low rate of infections in the country^{vi}.

Despite fiscal constraints and struggling economy, the Pakistani government has rolled out a massive social safety net initiative, termed as *Ehsaas Emergency Cash Programme*^{vii}. This is intended for many of the country’s poorer residents involving direct cash transfers during the lockdown in the country.

The economic implications of COVID-19 will be particularly severe in Pakistan. Prior to COVID-19, the country has been observing economic austerity after a balance of payments crisis resulting in loans from the IMF. Whereas, the Ministry of Planning, Development and Reforms has estimated that unemployment in the country could spike, leaving as many as 18.5 million people jobless^{viii}. Pakistan has developed a dashboard to monitor COVID-19; accessible at <http://covid.gov.pk>

The ECOSF has also developed a dashboard with real-time statistics on COVID-19 numbers for the ECO Member countries, accessible at <http://ecosf.org/covid.aspx>

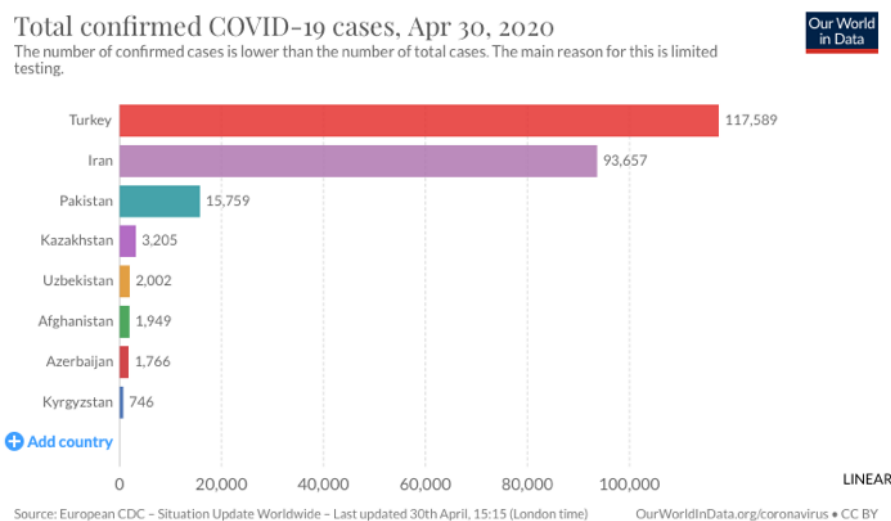


Chart 1: Total Confirmed COVID-19 cases in the ECO Member Countries (Source: [Our World in Data](#))

Afghanistan faces a real challenge in handling this pandemic situation. Currently, the confirmed cases stand at 1949 in the country. With limited healthcare capacity and a population that is more than 70 percent based in rural areas, it will be challenging for the country if the virus continues to spread widely in far-flung areas.^{ix} The country has already been through wars for decades and now they are bracing for another challenge which could threaten the nation.^x

Likewise in Azerbaijan, as the number of infections began to increase, strict measures have been taken^{xi}. All land borders with the neighbors have closed and education and work related activities have been suspended.

Kazakhstan has taken COVID-19 seriously and so far, it has conducted the highest tests per capita amongst the ECO Member Countries. The country has taken reasonable measures, including closing nonessential business, curtailing travel, and enforcing quarantines.

Kazakhstan also has developed its dashboard with the latest data accessible at <https://www.coronavirus2020.kz>. Economic implications of COVID-19 will be stern for Kazakhstan as well. Due to low demand of oil, Kazakhstan could see a sharp decline in its revenue generation.

Similarly, with the outbreak - Uzbekistan took immediate actions after its first case was reported. Uzbekistan is under a state of emergency; it has closed its borders, workspaces and schools, while heavy restrictions have been placed on movement within cities. At the same time, Uzbekistan has allowed freight traffic to continue across the region to enable the flow of aid and supplies to transit through its territory.

Kyrgyz authorities also appear to be taking the pandemic seriously. The authorities set up a website with information on the virus and news updates; accessible at <https://covid.kg>. The economic implications of this pandemic will be severe for the Kyrgyz Republic, as its economy relies heavily on remittances, 33% of GDP in 2018^{xii}. Thus, the country is expected to get a serious hit on remittances sparked by the pandemic.

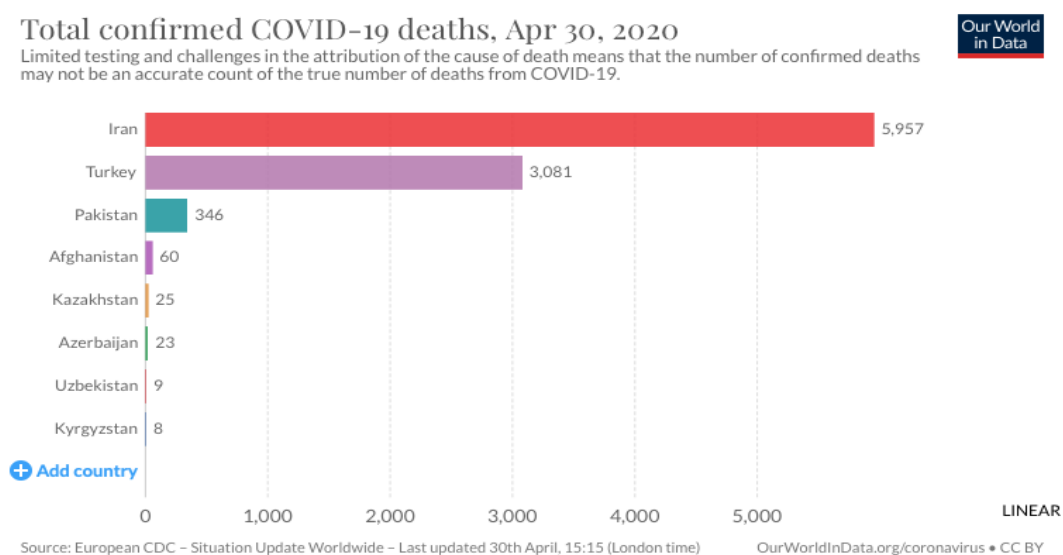


Chart 2: Total confirmed COVID-19 deaths in the ECO Member Countries
(Source: [Our World in Data](https://ourworldindata.org))

Healthcare Infrastructure in the ECO region

As the world struggles to respond to the COVID-19 pandemic, the virus is already pushing hospital and healthcare capacities to critical point. The deteriorating situation exposes lack of critical care infrastructure across different countries, particularly in terms of ICU bed capacity, ventilators and personal protective equipment (PPEs) for the healthcare workers. In addition, the institutional and systematic health inequalities continue to persist in developing countries, and the ECO Member Countries are no different.

With this pandemic, there is a growing recognition that national health security is fundamentally weak in many a developing world^{xiii}. Thus, no country is fully prepared for epidemics or pandemics, and every country has important gaps to address. Under the current scenario, ECO Member countries require flexible and timely measures with adequate financing options to detect and prevent the spread of this virus. It is a high time that all ECO Member Countries must prioritize and exercise the capabilities required to prevent, detect, and rapidly respond to this pandemic.

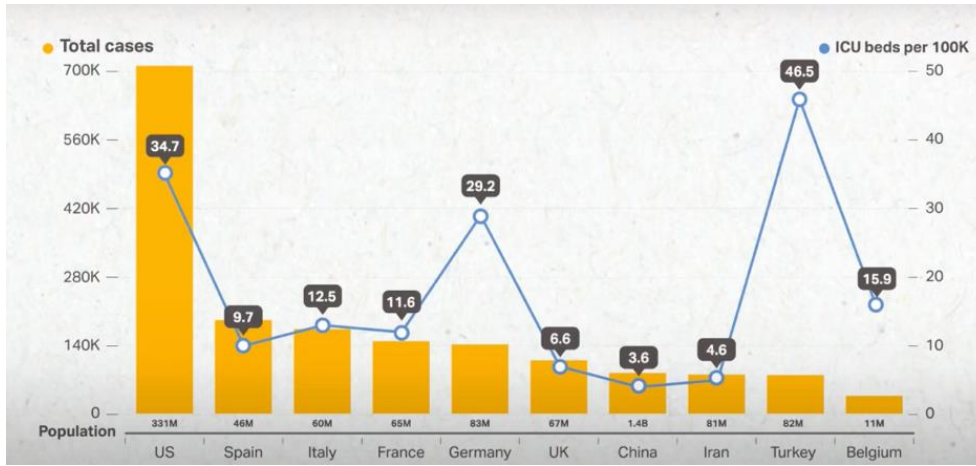


Chart 3: Number of ICU beds per 100k – Turkey has the highest number of ICU beds compared to major developed countries^{xiv}

This brief assesses the healthcare capabilities by each ECO Member State against the Global Health Security Index (GHSI)^{xv}. The GHSI is a comprehensive assessment and benchmarking of health security and related capabilities across the 195 countries to address one of the world’s most omnipresent risks: infectious disease outbreaks that can lead to international epidemics and pandemics. A snapshot of ECO Member profiles is provided at the end of this report.

The Global Health Security Index or GHSI underscores that every country must be transparent about its capabilities to assure neighbors it can stop an outbreak from becoming an international catastrophe. The Global Health Security Index measures the capabilities of participating countries using six prime parameters, as listed below:



1. PREVENTION

Prevention of the emergence or release of pathogens



4. HEALTH SYSTEM

Sufficient and robust health system to treat the sick and protect health workers



2. DETECTION AND REPORTING

Early detection and reporting for epidemics of potential international concern



5. COMPLIANCE WITH INTERNATIONAL NORMS

Commitments to improving national capacity, financing plans to address gaps, and adhering to global norms



3. RAPID RESPONSE

Rapid response to and mitigation of the spread of an epidemic



6. RISK ENVIRONMENT

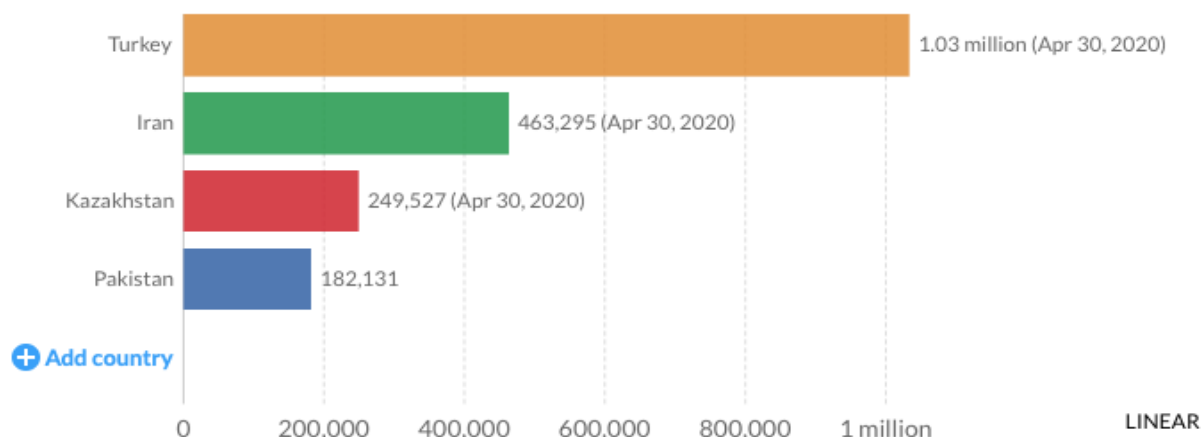
Overall risk environment and country vulnerability to biological threats

According to the GHS Index, Turkey appears to be better prepared with adequate healthcare infrastructure to respond to this crisis amongst the ECO Member Countries. Perhaps it is because of this reason that Turkey has been able to steadily ramp up its testing capacity to accurately map out the COVID-19 outbreak and stop further infections. In addition, Turkey has been among a few countries in the world that carried out more than a million coronavirus tests^{xvi}

Furthermore, the COVID-19 crisis has also sparked a situation to reconsider the existing budget allocations across sectors and within the health sector in particular. The pandemic is forcing countries to reprogram existing expenditures towards the health care response. Therefore, we look at the Current Healthcare expenditure by the ECO Member Countries. We

also look at the availability of physicians and hospital beds per 1000 people in each Member State to assess the healthcare capabilities in the Member States.

Total COVID-19 tests, May 1, 2020



Source: Official sources collated by Our World in Data
 Note: For testing figures, there are substantial differences across countries in terms of the units, whether or not all labs are included, the extent to which negative and pending tests are included and other aspects. Details for each country can be found at the linked page.
 OurWorldInData.org/coronavirus • CC BY

Chart 4: Total COVID-19 tests conducted in selected ECO Member Countries (Source: Our World in Data)

In terms of healthcare expenditure per capita, the average value for the entire ECO region stands at US\$ 227 which is much less than the global average at US\$ 884 as shown in following chart 5 (right). Although Iran, Turkmenistan, and Turkey show better capita spending and each one of these country spend twice than the ECO average.

However, it is disappointing to see that Pakistan, Afghanistan and Tajikistan are acutely poor in terms of per capita healthcare spending in the region. Their per capita spending is less than the WHO’s benchmark for the low income countries. Although, in terms of healthcare spending as percentage of GDP, the ECO region has a slightly higher standing than world average at 6.4% than the global average at 6.3% as show in the chart 5 (left).

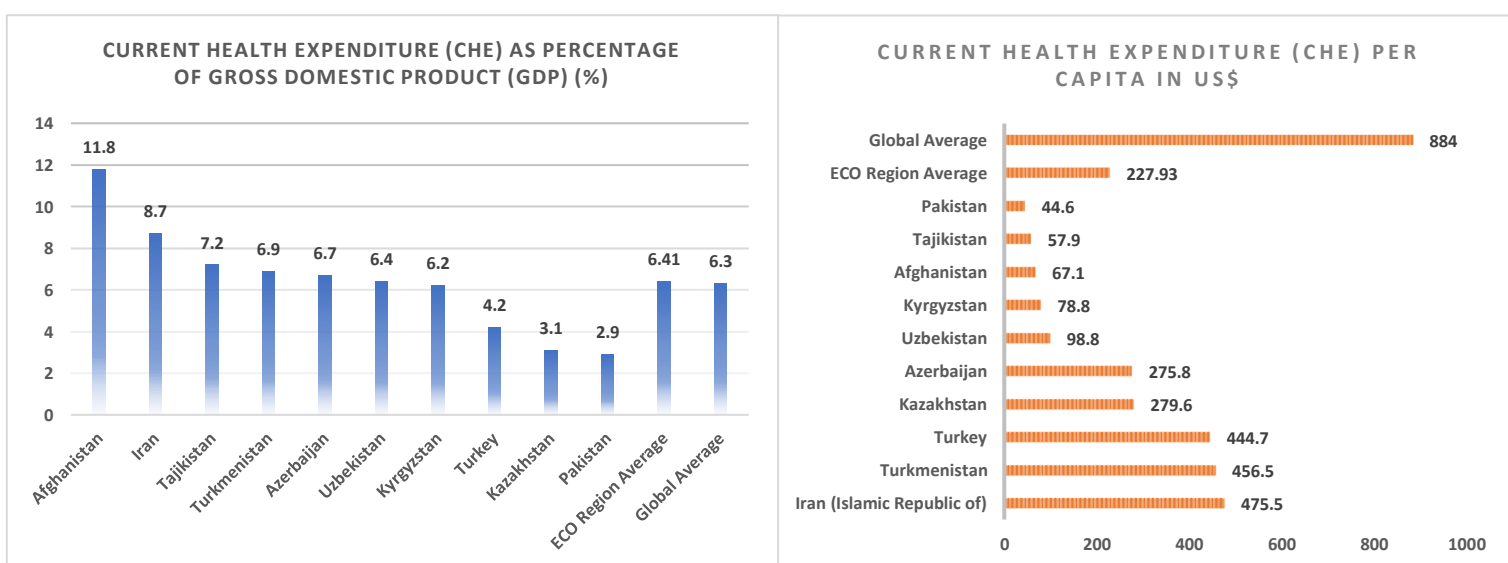


Chart 5: Current Healthcare Spending in the ECO Countries (left) as % of GDP (right) per capita in US\$ (Source: WHO – complied by author)

The above chart also demonstrates that some ECO Member countries will face severe challenges owing to their weak national healthcare infrastructure. If the current outbreak continues to spread further, it may highlight persistent health system constraints in addition to lack of adequately skilled health workforce in these Member States.

The following chart demonstrates the availability of hospital beds and physicians per 1000 people in the ECO Member Countries. Pakistan and Afghanistan rank lowest in the region with values less than combined average of ECO and the global average. It could mean that with fast-moving spread of the COVID-19, Pakistan would most likely be on its way to quickly reach its critical limits of healthcare facilities and face severe shortages of both healthcare professionals and hospital beds in the country.

Similarly, this also highlights an urgent need of dedicated epidemiologists in the Disaster Management Authorities in the ECO region; whose services would be critical to respond to the Covid-19 pandemic.

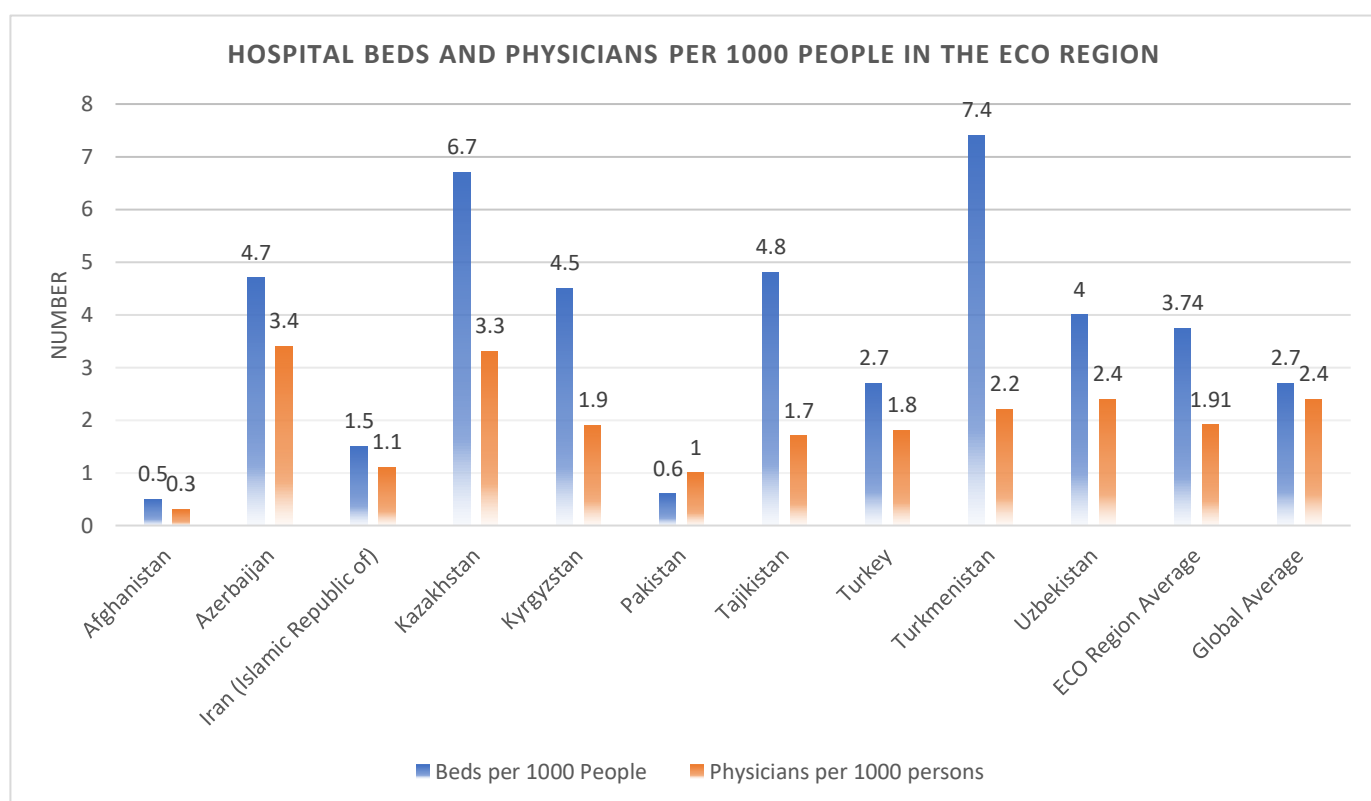


Chart 6: Availability of Hospital Beds and Physicians per 1000 people in the ECO region.
(Source: World Bank – Compiled by author)

Scientific and Technological Response to the COVID-19

Turkey

Scientific and Technological Research Council of Turkey (TUBITAK), which is Turkey's top scientific body, has established COVID-19 Turkey Platform to mobilize scientific resources of 41 scientific institutions to develop medicines and vaccines against COVID-19^{xvii}. Under

COVID-19 Platform, 7 vaccine and 7 drug development projects are currently being undertaken.

Further, TUBITAK has invested over US\$ 300 million for the development of 16 vaccine and other medicine projects over the past five years in Turkey^{xviii}

Due to its advance scientific capabilities, Turkey is now self-sufficient in terms of manufacturing its own testing kits and develops its Polymerase Chain Reaction (PCR) tests.

A Turkish firm has also produced a COVID-19 test that can yield results within five minutes without requiring trained personnel or expensive lab equipment^{xix}.

Pakistan

The Higher Education Commission (HEC) of Pakistan has launched a programme supporting applied research in areas including disease surveillance and epidemiology, and in the rapid development and commercialization of products and services that will help the country control COVID-19.

On the product side, the commission is interested in promoting domestic manufacturing of low cost equipment and materials, including diagnostics, ventilators and personal protective equipment. Universities, technologists and researchers are invited to submit proposals. Projects will last for six months or one year, with maximum funding of over US\$ 90,000^{xx}

The Pakistan Science Foundation has opened a Rs20 million (US\$ 19.5 Million) call for proposals for a public-private collaboration in the fields of technology and material development, infection prevention and control, and epidemiology, to fight COVID-19^{xxi}.

The Ministry of Information Technology and Telecom in Pakistan is providing funding support to high-impact and short time-to-market ideas that can be developed to tackle the most pressing challenges by COVID-19 outbreak using the application of Information and Communication Technologies (ICTs)^{xxii}.

The International Center for Chemical and Biological Sciences (ICCBS) at the University of Karachi has been actively involved in the diagnostics, research and drug delivery system for the novel corona virus. The Jamil-ur-Rahman Center for Genome Research based at the ICCBS is undertaking the genomic analysis of COVID-19 from Pakistan by using next generation sequencing^{xxiii}. This research will help to understand the genetic variations and their correlation with the disease severity, progression and clinical outcomes.

The International Center has also been involved in the evaluation of protein-protein contact profiles between CoV2 spike protein and ACE2 to understand the dynamics of the event. The Center has also established largest biosafety level -III (BSL-III) laboratory in the country in response to the pandemic with a potential testing capacity of 2,400 tests per day.

Iran

Mustafa (PBUH) Science and Technology Foundation (MSTF) based in Iran have garnered the support from Scientists and Technologists of the Islamic World to contribute towards the detection, prevention, including drug development and vaccines for the COVID-19.

In its 7th, Science and Technology Exchange Program (STEP) which will be organized online, will invite leading scientists from the Islamic world to discuss and share the scientific and technological resources to combat COVID-19 on May 28, 2020. MSTF is also collaborating with Sharif University of Technology to develop AI Med; if successful this could be an effective method to detect the COVID-19 cases at a large scale^{xxiv}.

Kazakhstan

The National Biotechnologies Centre and Scientific Research Institute of Biological Security of Kazakhstan is reportedly developing a vaccine against COVID-19^{xxv}.

ICT in the ECO Member Countries

In combating the adverse effects of COVID-19 and enhancing societal and economic resilience, digital technology and internet connectivity have emerged as an essential tool and alternative to the physical equivalent. According to the World Bank, over 160 countries have mandated temporary school closures, leaving 1.6 billion children and youth out of school.

Here is the snapshot of internet connectivity in the ECO region. To tackle this challenge, ECO Member Countries need to promote and increase inclusive broadband connectivity to deliver remote learning and critical healthcare facilities during the pandemic.

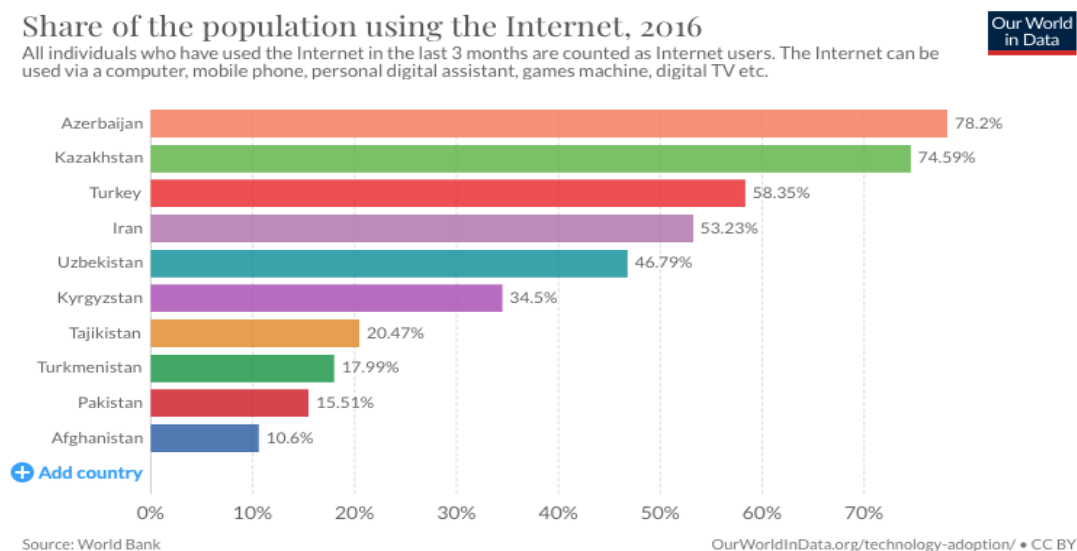
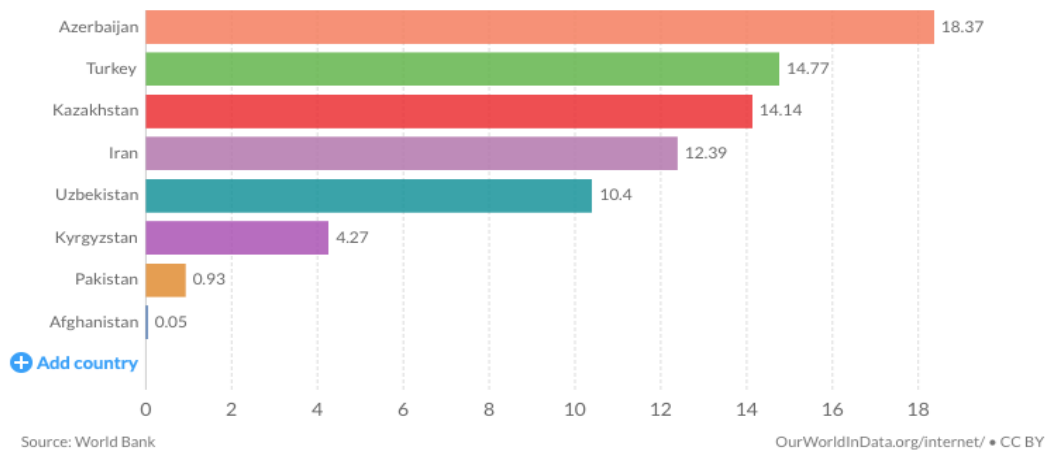


Chart 7: Share of the population using the Internet (Source: [Our World in Data](#))

Extended school closures in the Member Countries may cause not only loss of learning in the short-term, but also further loss in human capital and diminished economic opportunities in the long-term. To help mitigate the loss of learning, many countries are pursuing options to utilize remote learning to manage and cope with the crisis. However, without reliable connectivity, this would be a challenge to embark upon remote learning in the region.

Broadband subscriptions per 100 people, 2017

Broadband subscriptions refer to fixed subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, 256 kbit/s.



Source: World Bank
 Note: For more details on the definition see the sources tab.
 OurWorldInData.org/internet/ • CC BY

Chart 8: Broadband subscription per 100 people (Source: Our World in Data)

These two charts show that there exist serious gaps in internet connectivity in the region. Therefore, it is high time that ECO Member Countries develop a plan to augment the accessibility and connectivity in the region. The relevant Ministries of ICTs could liaise with international development partners such as Information Technology Union of United Nations and UN Broadband Commission to beef up their ICT infrastructure in the respective countries. During this pandemic, the resource availability and connectivity through broadband is critical to respond to the COVID-19 pandemic.

Economic and Fiscal Measures

The severity of this pandemic and its impact on economic consequences is unimaginable. No one knows yet exactly how the pandemic further develops and no one knows exactly the future path of economies worldwide. The IMF has revised its Global Economic Outlook for 2020. The following chart shows the impact of COVID-19 on real GDP growth of the ECO Member Countries.

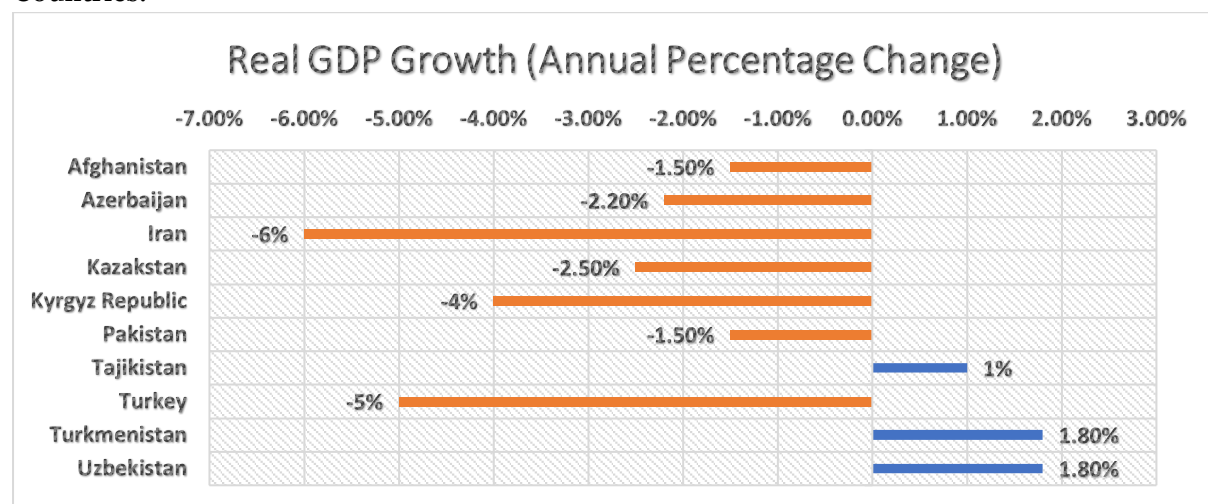


Chart 8: Real GDP Growth outlook by the IMF of ECO Member Countries (Source: IMF compiled by author).

However, in order to save lives and secure most urgent necessities for millions of people, it is important to concentrate on fast-track measures to contain the pandemic and mitigate its adverse impact on livelihood and economies. Virtually all countries in the world have responded to the COVID-19 crisis by implementing some fiscal and monetary measures. Below are the fiscal measures taken by the ECO Member countries.

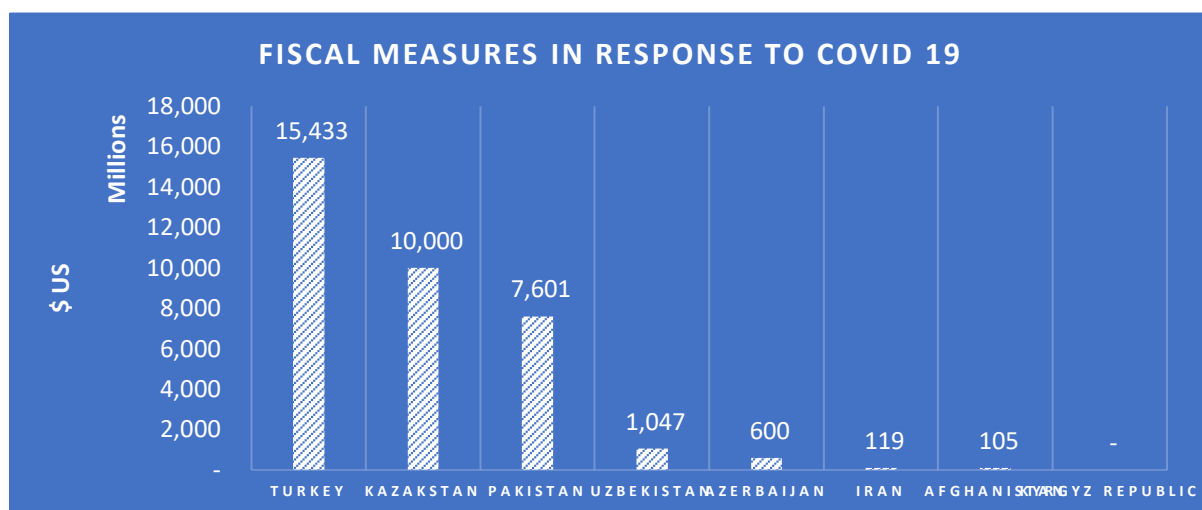


Chart 9: Fiscal measures by ECO Member Countries
 (Source: Oxford Government Response Tracker – Compiled by author)

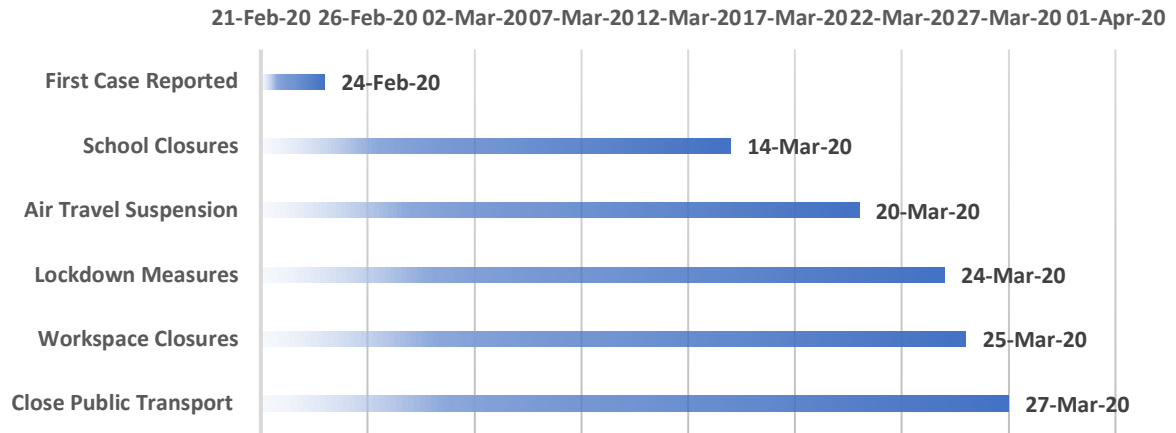
In response to this crisis, nearly all countries have undertaken fiscal and monetary measures to and redirected funds and financing towards healthcare emergencies. This brief considers the fiscal measures undertaken by the ECO Member Countries and their economic outlook for 2020 by the International Monetary Fund (IMF).

In order to keep the economy running despite lockdowns, to support health systems and other critical infrastructure and to mitigate the adverse economic shocks, ECO Member Countries must come together to support each in the fight against this pandemic.

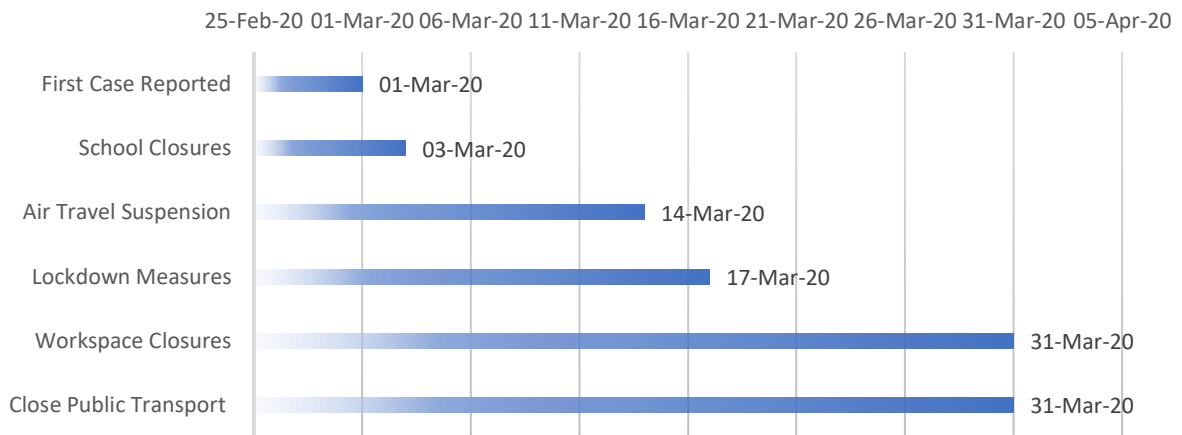
ECO Member Countries Response to COVID-19

Oxford University Response Tracker for COVID-19 - Compiled by Author^{xxvi}

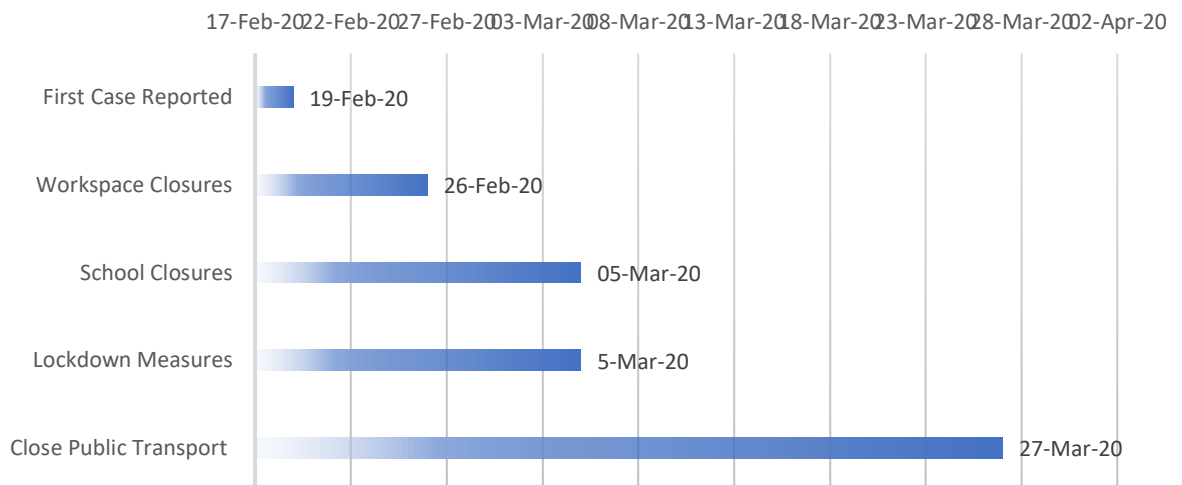
GOVERNMENT RESPONSE TO COVID-19 AFGHANISTAN



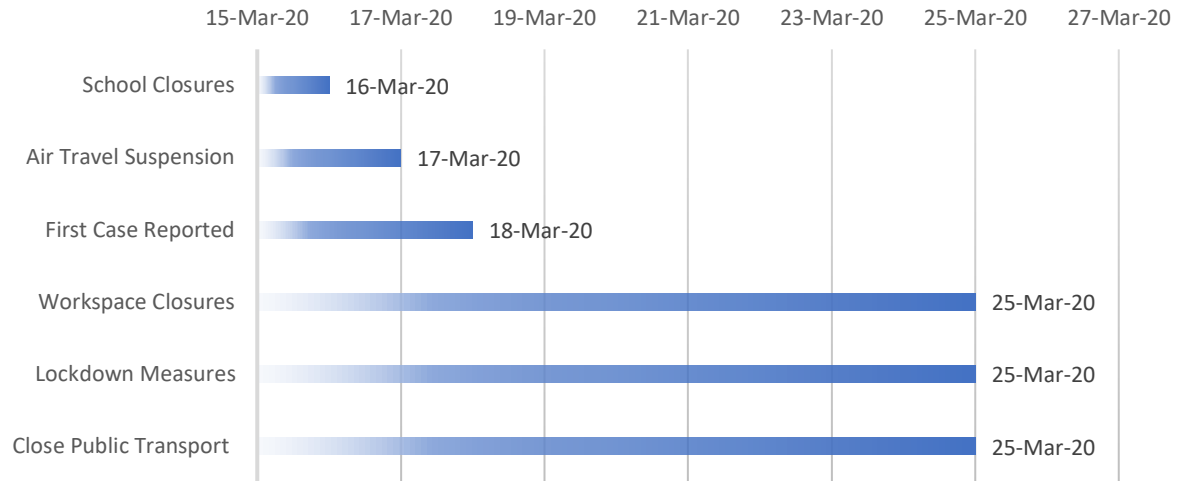
GOVERNMENT RESPONSE TO COVID-19 AZERBAIJAN



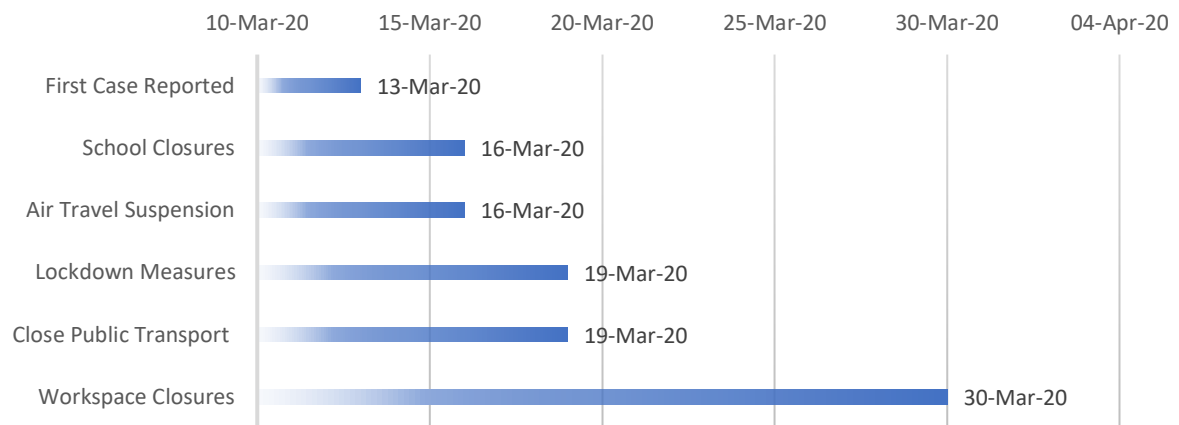
GOVERNMENT RESPONSE TO COVID-19 IRAN



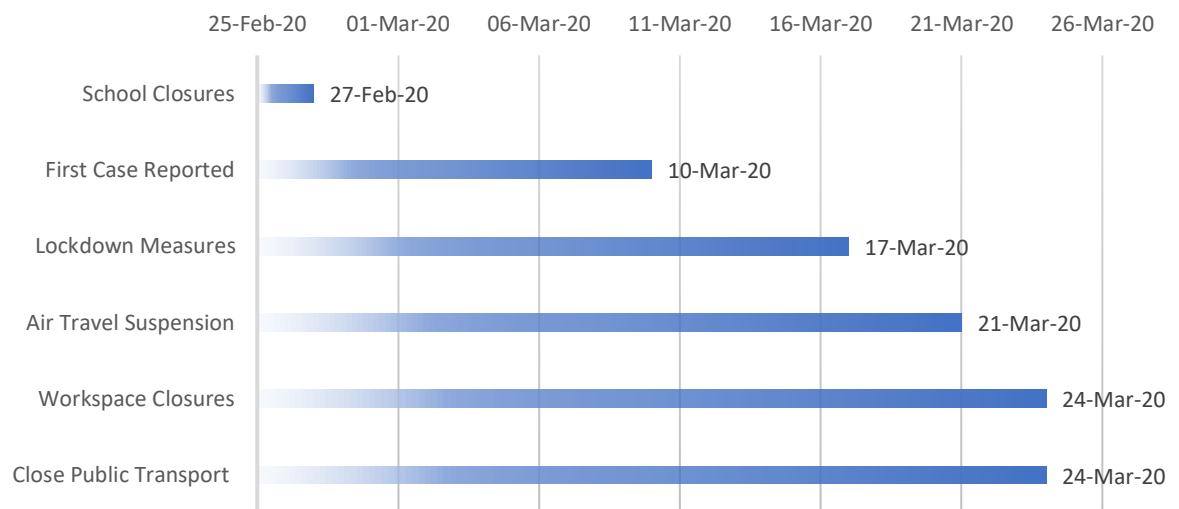
GOVERNMENT RESPONSE TO COVID-19 KYRGYZ REPUBLIC



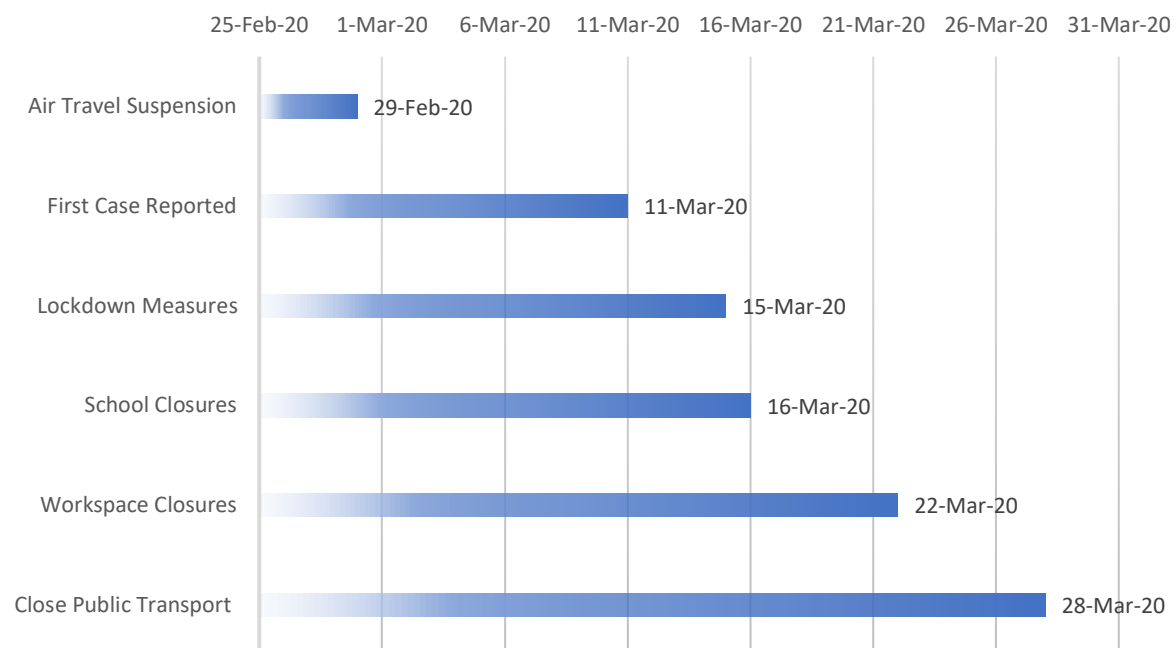
GOVERNMENT RESPONSE TO COVID-19 KAZAKHSTAN



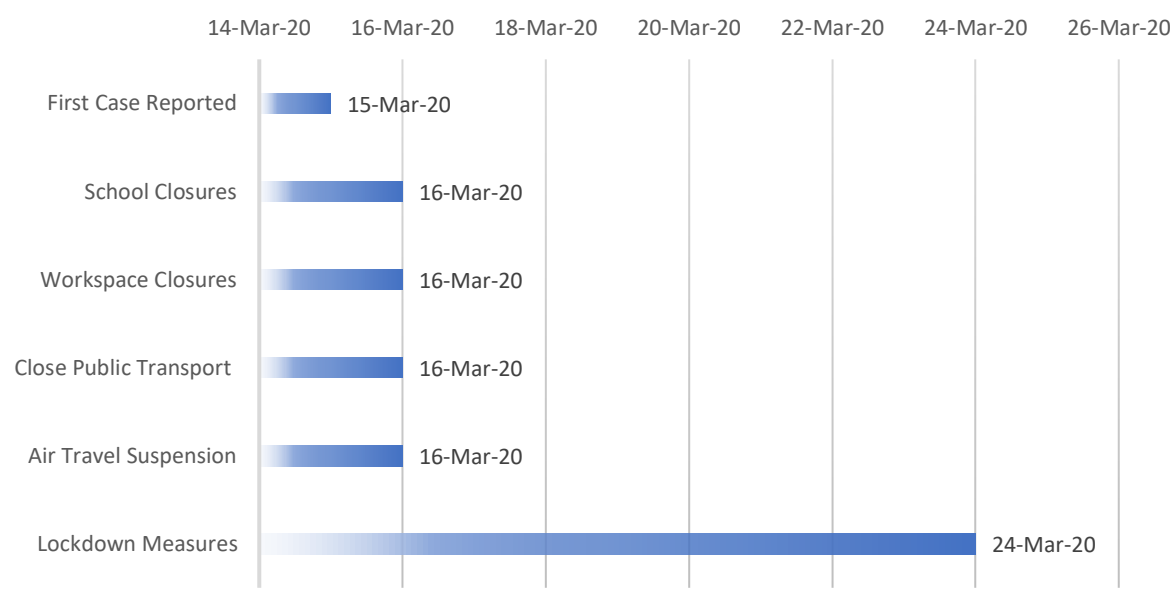
GOVERNMENT RESPONSE TO COVID-19 PAKISTAN



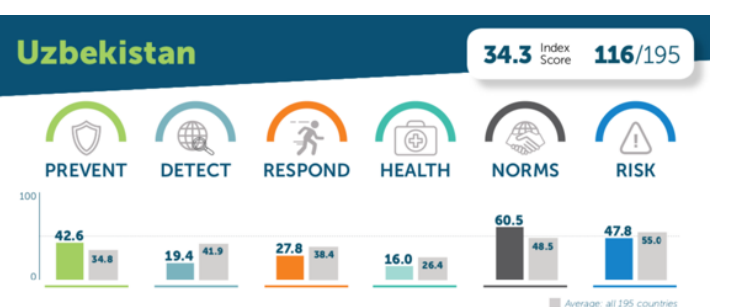
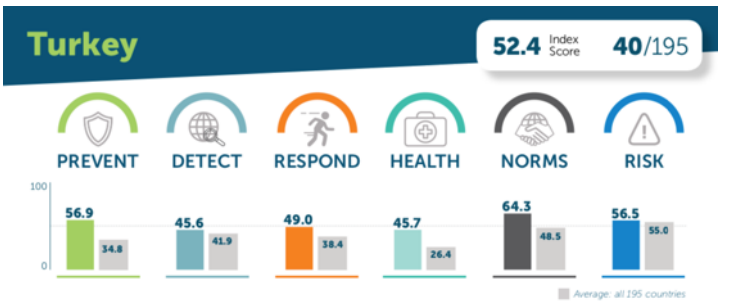
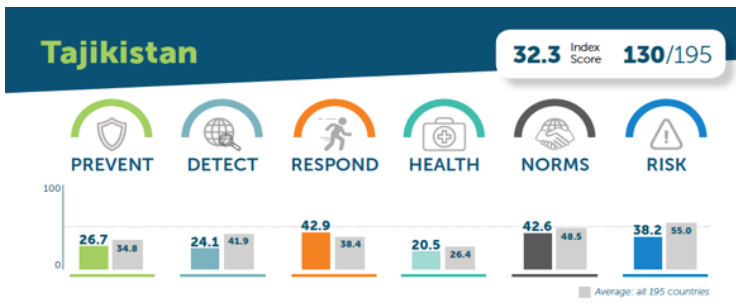
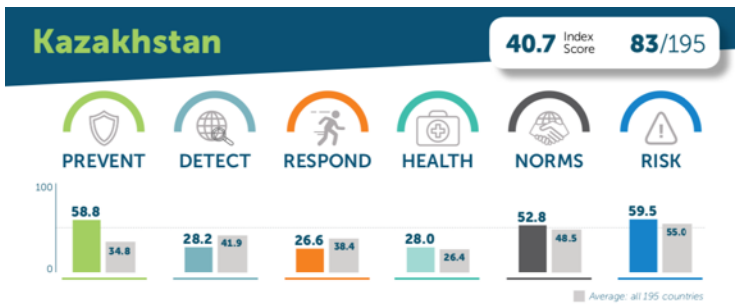
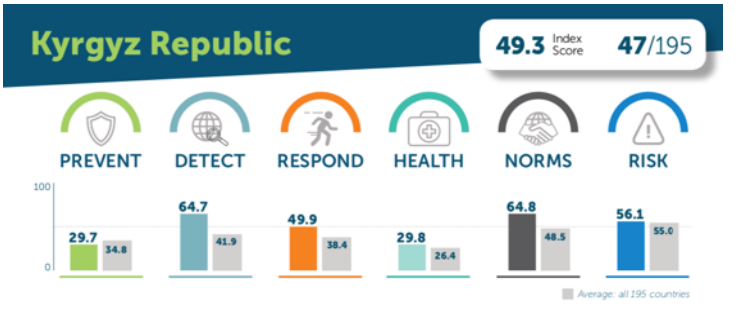
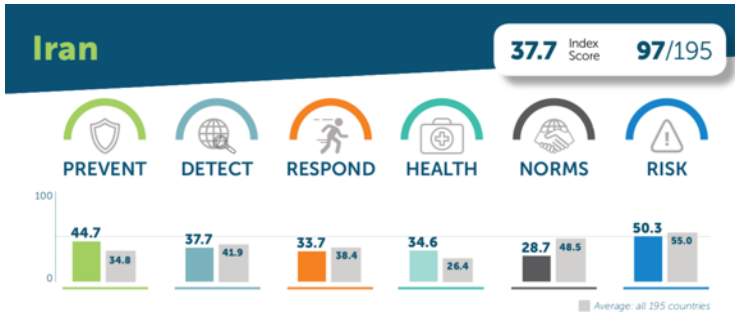
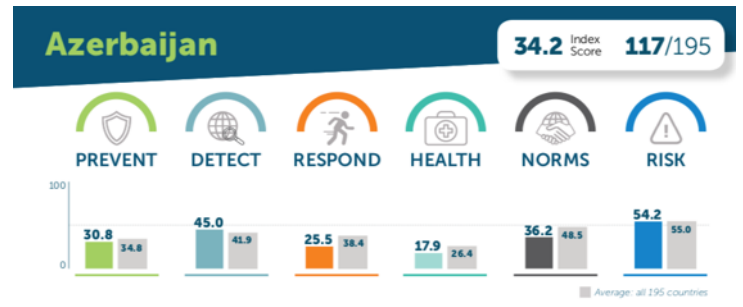
GOVERNMENT RESPONSE TO COVID-19 TURKEY



GOVERNMENT RESPONSE TO COVID-19 UZBEKISTAN



Global Health Security Index Profiles of the ECO Member Countries.



End notes

- i <https://www.rferl.org/a/covid-19-pakistan-extends-suspension-of-international-flights-tajikistan-suspends-soccer-season/30577180.html>
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- xxiii <https://www.iccs.edu/page-covid-19>
- xxiv <https://mustafaprize.org/news/?id=3171>
- xxv https://www.inform.kz/en/kazakhstan-developing-vaccine-against-covid-19_a3627758
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