

Covid-19 in the Mediterranean and Africa

Diagnosis, Policy Responses, Preliminary Assessment and Way Forward

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ABOUT THIS STUDY

EMEA-EMNES Studies – APRIL 2020

Amidst the disrupting circumstances resulting from the global pandemic COVID-19, this study provides a diagnosis of the contagion between February and April 2020 in the Mediterranean and Africa. It assesses the level of preparedness of national healthcare systems and examines the policy responses for containing the contagion and for mitigating the socio-economic consequences of the health crisis in several countries including: Algeria, Egypt, Ghana, Italy, Jordan, Lebanon, Morocco, Palestine, Spain, and Tunisia. The study proposes a novel three-pillar framework to assess the policy responses. It concludes with a preliminary assessment for the surveyed countries and provides recommendations for the way forward.

The study, which is **part of the EMEA policy research initiative on COVID-19** launched on March 18th 2020, is led and coordinated by Prof. Rym Ayadi, President of EMEA and Director of EMNES. It is a result of collaborative research and contributions from EMNES researchers from Algeria, Egypt, Jordan, Lebanon, Morocco, Palestine and Tunisia; and of EMEA members of the Advisory Board, researchers, fellows and experts. Acknowledgement of reviews by members of EMEA Executive Board: Cinzia Alcidi and Carlo Sessa.

On April 15th 2020, EMEA launched its online knowledge and research collaborative open access platform (EMEA collaborative platform), to facilitate collaborative research in times where social distancing has been one of the critical containment policies in all the countries affected by COVID-19 : <https://research.euromed-economists.org/covid-19/>.

Since events surrounding COVID-19 are unfolding at the time of writing, EMEA-EMNES research teams continue updating policy developments and the economic and social consequences of the pandemic throughout the Mediterranean and Africa. The updates are posted regularly on the EMEA collaborative platform.

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ABOUT THE STUDY CONTRIBUTORS

Rym Ayadi, President, EMEA, Director EMNES and Professor CASS Business School

"A new journey of discovery based on human values has begun into what matters and what is the truth in an interdependent world."

Samir Abdullah Ali, Member EMNES, Member Expert Panel, EMEA, and Senior Research Fellow, Palestine Economic Policy Research Institute, MAS

"Confronting pandemics always depends on government swiftness for the effective containment of their spread. But what is unique in the case of COVID 19 is that its defeat depends on the quality of social capital at the country level and solidarity and cooperation of governments at the global level. Over-reliance on advanced and adequate healthcare systems has proved to be elusive and misleading."

Nooh Alshyab, Director EMNES, Jordan, Member Expert Panel, EMEA and Associate Professor, Yarmouk University

"The COVID-19 crisis has spread concerns about the credibility of the leading political class and its ability to go beyond partisan interests to find an internationally unified position. The pandemic leads us to question whether self-interest produces socially optimal arrangements."

Kwame Sarpong Barnieh, Member Expert Panel, EMEA and Partner KPMG Ghana

"This pandemic has exposed many businesses and financial models. In fact, it has proven the essence of the term global village and our reliance on each other."

Yacine Belarbi, Member EMNES, Senior Researcher, Centre de Recherche en Economie Appliquée pour le Développement, CREAD, Algeria

"The COVID-19 pandemic can cause a deep and multidimensional crisis with social, economic and political repercussions. In our south Mediterranean region, this crisis is a serious examination for our politicians. Indeed, their capacity to correctly react to reduce the pandemic's negative effect on the economy and society is a real challenge to political and social stability. The weakness of our sanitary systems and the frailty of our economies make the fast spread of infected people an impossible phenomenon to manage. This last situation can chaotically lead to a complete collapse of the southern Mediterranean states."

Sandra Challita, Research Fellow, EMEA

"The Covid-19 crisis is revealing the weaknesses of economic systems, the power of nature and the fragility of our human existence. Nonetheless, it is also demonstrating our capacity to be agile and to innovate, to show solidarity and to reshuffle our priorities as humans and countries."

Najat El Mekkaoui, Member Expert Panel, EMEA and Professor Paris Dauphine

"COVID-19's economic impact is highly uncertain and global. In this context, coordinated international economic responses and building international solidarity for the most vulnerable countries are crucial to mitigate the human and economic costs."

Kinga Konya, Project Manager, EMEA

"We are all confined in our homes and under strict social distancing measures where we realise that freedom, human rights, health and social relations are values that cannot be taken for granted. We are fighting a war against an invisible enemy which does not understand borders. It will require a collective effort to reestablish what we previously had and to stop the pandemic in collaboration and in solidarity as individuals."

Rim Ben Ayed Mouelhi, Member Expert Panel, EMEA and EMNES Director, Tunisia

"A horrible war against an invisible enemy that is confronting countries with a difficult balance between health and economic emergencies."

Racha Ramadan, EMNES Member, Associate Professor Cairo University

"The COVID-19 crisis is a global human crisis that hits every individual in every sector and every country. This crisis will jeopardise the progress achieved in reducing poverty and achieving food security in developing countries and will reshape economic thinking and the development agenda worldwide. Governments need to prioritise public expenditures and reform social policies to include all vulnerable groups, like women and informal employees, who are the most affected."

Serena Sandri, EMNES Member, Member Expert Panel EMEA

"The COVID-19 crisis has confirmed the urgent need to foster inclusive development. The pandemic has widened existing social gaps and has increased the vulnerability of already marginalised groups within society."

Mais Shaban, EMNES Fellow and EMEA Research Fellow

"The COVID-19 pandemic has caused a public health crisis of international concern that is also rapidly becoming a global economic crisis that might long outlast the health crisis. Hence, global solidarity is needed to defeat the virus, to address the socio-economic consequences and to build more resilient, sustainable economies."

Sara Ronco, Researcher, EMEA

"COVID-19 crisis has highlighted the inefficiency and the inequality of our economic systems and the weaknesses of democracy. Between selfish and solidarity approaches, the one which will prevail will depend on how we are able to rebuild the international system in a truly inclusive and sustainable way, leaving no-one behind."

Chahir Zaki EMNES Director, Egypt, Member Expert Panel EMEA, Associate Professor, Cairo University

"The apocalyptic circumstances we are currently facing with COVID-19 require a paradigm shift towards unity and humanity. Whilst the pandemic has accentuated the clarity of our common humanity, it is obvious that no one will succeed on his own. Moreover, to effectively invest in humans we are in dire need of increasing spending on healthcare."

SUPPORT

Rob Attree, Editing Officer, EMEA

“Whilst it has been a challenge for large parts of the world to enter into lockdown to universally fight COVID-19, our toughest battles may still lie ahead. Protecting our health from the pandemic is one concern. However, the impact of the social and economic fall-out from the contagion will be felt for many years to come and could potentially change the global landscape for good.”

Nektar Baziotis, IT/AI Officer, EMEA

“During certain periods, humanity has to confront its fatal destruction. We, as humans, are never sufficiently prepared. But our collective reactions prove our unity. Despite the state of fear that is being created, new ways of interaction and innovative economic formats are emerging: digital/virtual. And above all, what are considered to be important values are being re-examined or reinstated.”

George Christopoulos, Communication and Intelligence Officer, EMEA

“Almost equally dangerous to the virus itself, the COVID-19 Infodemic has underlined the vulnerability of the global society to fake news and propaganda campaigns. The role of research institutions to step-up and offer accurate, factual, and scientific information for both citizens and decision makers is now more important than ever.”

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FOREWORD

Fathallah Sijilmassi, Member of the Advisory Board, EMEA, EMNES and Former Ambassador (Morocco) and Secretary General of the Union for the Mediterranean (15 April 2020)

Since the beginning of year 2020, the World has gone from discovering the existence of a local virus in the province of Hubei (China) to a worldwide pandemic. The figures of confirmed cases and casualties increased significantly over the days and weeks, thus making the “Coronavirus crisis” as it is commonly named, a planetary disaster, and one that questions a number of certainties we had until now.

“Question” is indeed the right word to use, as it is impossible and highly risky to predict anything with certainty at this stage. Who would have imagined, that in March 2020, we would see more than three billion people confined and the oil price below 35\$ a barrel!

The pandemic has reached all continents and the vast majority of countries with different levels of intensity. Europe and the US seem to be the epicentres of the crisis.

The world today is in “crisis management” mode. One can only acknowledge the commitment of public health services (in difficult circumstances) as well as admire the rising solidarity between people.

The crisis has the virtue of bringing us collectively back to basics. It is striking to see that, almost overnight, food and health have become a vital priority for all.

So what will come out of this? For the immediate response to the crisis, governments are in the lead in close coordination with the medical scientific community. The responsibility of everyone is to be disciplined and cautious, in order to participate in the collective effort of responsibility.

It is very timely that organisations such as the Euro-Mediterranean Economists Association (EMEA) and the Euro-Mediterranean Network for Economic Studies (EMNES) are developing studies and surveys on the socio-economic impacts, in a rapidly evolving context.

EMEA’s (and EMNES’) current work is essential in collecting data on national domestic responses to the crisis in the region, as well as the overall challenges of regional and international governance. By developing accurate and aggregated information about the state of play in the region, as well as its evolution, EMEA (and EMNES) provide an important and unique base for the analysis of trends, impacts and policy implications.

Moreover, it prepares the ground for reflections about the way forward, with a vision based on the importance of regional cooperation.

The world is facing three challenges, all urgent, risky and decisive.

The first one is public health preparedness: infrastructure, equipment, training, research and innovation, logistics etc

The second is the short-term socio-economic impact of the health crisis: what sectors are benefitting (food, medical equipment), swiftly readapting (education, logistics) or desperately suffering (tourism, transportation) from the crisis? What is the impact on monetary policies? On employment?

The third one is the medium to long-term fundamental transition that global governance will need to manage¹.

- What is the future of current World governance? Will there be a retreat from hyper globalisation as citizens look to national governments to protect them (Stephen M. Walt)? Is the architecture of global economic governance, established in the 20th century, at risk (Robin Niblett)? Or will we see the rise of a new type of pragmatic and protective internationalism (G. John Ikenberry)?
- Inter-dependence and mobility will probably continue, but there will be changes and new priorities. Amongst them, there will be the need to protect against future disruption, to render the entire system more resilient, thereby strengthening the global governance of public health.
- This could lead to prioritising stability/safety over profit and, thereby, promoting a new business model for production and consumption (Shannon O'Neill) and the supply chain will be brought closer to home (Laurie Garrett). What then is the role and future of regional cooperation frameworks?

The Euro-Mediterranean region and beyond the Euro-African region have an opportunity to promote regional cooperation as a means of providing collective answers to all these questions.

Being ahead of the curve is vital and it starts with understanding that mankind always reverts back to basics.

¹ Foreign Policy, « *How the World Will Look After the Coronavirus Pandemic* », March 20, 2020

FOREWORD

Roger Albinyana, Member of EMEA Advisory Board, Director of Mediterranean Regional Policies, European Institute of the Mediterranean and Associate Professor at the University of Barcelona (15 April 2020)

Whilst I started writing this section on 30 March 2020, one Spanish citizen was perishing every three minutes as a result of the spread of COVID-19. It was a direct consequence of the coronavirus death rate in Spain which was then rising more steeply than in Northern Italy. The drastic measures of confinement and restrictions on economic activity, enforced by the central government on 14 March, were yet to prove their effectiveness, despite the fact that we have witnessed a slight slowdown in the pace of confirmed COVID-19 cases since 26 March. Against this backdrop, on 28 March the central government decided to tighten lockdown, in order to restrict economic activity to only the most essential sectors; those being the primary sector and those activities related to health, food, security and transportation. The country's Prime Minister announced the move the day that Spain's death toll mounted to 6,531 cases and the death rate was growing at 15%. Almost three weeks after these stricter lockdown measures were implemented, the death rate has dropped to only 3% but with an accumulated number of 18,579 casualties², behind only the United States and Italy.

At present, Spain, alongside some other EU countries, is facing a severe public health crisis with the cost of tens of thousands of positive cases struggling to recover from the disease and those who have unfortunately passed away in this process. However, Spain, alongside many EU countries, will face a severe economic crisis that will bear important costs for everybody, not just for the generation that is currently struggling to combat this pandemic but also for future generations.

In this regard, the livelihoods of millions of not only Spanish or Italians citizens - so far, the worst hit countries by this crisis- are, therefore, at risk. In particular, owners and employers of micro, small and medium sized enterprises (MSMEs), the self-employed, and those employed in precarious job placements, many of whom are employed in the tertiary sector of the economy or in low-skilled, low-wage jobs are at great risk. In just fourteen days, it is estimated that around 1.5 million workers have become temporary unemployed in Spain, which represents a 6.5 point increase in the unemployment rate³.

The way how the great financial crisis was handled, but especially the European sovereign debt crisis during 2009-2013, leaves no room for error again. The European Union will have to act rapidly and effectively in a crisis whose devastating impact seems to be more acute and

² On 15 April 2020.

³ The latest available official figure on the unemployment rate in Spain is 13.78 percent from December 2019 (INE, 2020). IMF has estimated that this figure could increase to 21 percent, a level of unemployment that Spain last saw in 2015.

concentrated over time. Unlike with the great financial crisis, the origin of this crisis is not economic or asymmetric, but it will certainly incur economic and financial consequences for all.

The EU Mediterranean peripheral economies cannot be blamed for not abiding by the austerity rules imposed by the European Commission, when Spain's health care system difficulties, like in Italy and Greece, are precisely the result of the austerity measures taken during the period 2010-2013. The path towards fiscal consolidation has been steadily pursued, but the severe economic downturn caused by this pandemic will require other efforts than the unprecedented decision to suspend the Stability and Growth Pact obligations, adopted by the EU finance ministers on 23 March 2020.

Indeed, the decision by the Governing Council of the European Central Bank (ECB) on 18 March to launch a new temporary asset purchase programme⁴ of private and public sector securities, with an overall envelope of EUR 750 billion, is a necessary step towards stabilisation. This measure should keep the Euro currency afloat and contain the rise in risk spreads. It is significant that the latter's response has been so rapidly adopted since the beginning of the crisis, considering that in 2008 it took four years before the ECB undertook the first really decisive measures. It seems clear that the options for activating other orthodox monetary policy decisions are very limited at the moment and it also seems clear that this policy alone will not be sufficient to offset the consequences of such a crisis.

At a time of discord, in which the European Council and the Eurogroup seem rather slow in reacting to the crisis due to political disagreements between certain member states, the European Commission should step in and take a much more vigorous and assertive role⁵, even if it is only at the level of tabling decisive proposals and communications. The public health emergency will soon be coupled with an economic depression⁶. Failing to address the latter from the EU side will not only significantly slow down the recovery path, but it will once again send a ruinous message to European citizens, particularly as populist and nationalist sentiments are still on the rise across the continent.

⁴ For further information on the new Pandemic Emergency Purchase Programme (PEPP), please read: https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318_1~3949d6f266.en.html

⁵ For the time being, upon the initiative of the European Commission, a Coronavirus Response Investment Initiative has been adopted by the European Parliament and the Council and it will provide EUR 37 billion of investment under cohesion policy to address the consequences of the crisis. With the proposed amendment to the EU Solidarity Fund, that fund can also be used for public health emergency situations such as the COVID-19 outbreak. On the external front, the European Commission and the High Representative have also announced a robust and targeted EU response to support partner countries' efforts in tackling the coronavirus pandemic. To this end, the EU will secure financial support to partner countries amounting to more than EUR 15.6 billion from existing external action resources, of which EUR 2.1 will target the Southern Mediterranean Countries.

⁶ It is too early to credibly forecast the direct impact of this crisis into GDP, but the April World Economic Outlook of the IMF projects global growth in 2020 to fall to -3 percent, and the Euro area to -7.1 percent, assuming that the pandemic fades in the second half of 2020.

There has been an increasingly bitter debate amongst member states on the need to create an instrument of debt mutualisation following the end of the last European sovereign debt crisis. Such an instrument would give an unequivocal step towards a real fiscal union, but it seems quite unrealistic to envisage this anytime soon.

As countries like Spain and Italy will witness, at least temporarily, a sharp decrease in their tax revenues and a heavy increase in their transfer payments, they will face severe difficulties in launching a post-crisis stimulus package, like Germany will. To mitigate the economic damage that is being caused by COVID-19, the European Commission should launch a credible programme of loans for member states at risk. This programme should aim at stabilising the economies of the European Union with a total safety net of EUR 1 trillion⁷ and it could be handled by the European Stability Mechanism (ESM) - provided that loans were granted without conditionality. Hence, the rules of the ESM should be modified accordingly.

To that end, the European Council, in its statement of 26 March 2020, entrusted the Eurogroup with developing proposals to counter the effects of the COVID-19 pandemic, and hence on 9 April 2020 the Eurogroup agreed, amongst others, on the establishment of a pan-European guarantee fund of EUR 25 billion, which will support EUR 200 billion of financing for SMEs. It also decided to create a Pandemic Crisis Support, to which any eurozone country will be able to draw on a credit line worth 2% of its GDP. Furthermore, it also agreed on the establishment of the European Commission's EUR100 billion jobless insurance plan. Finally, the Eurogroup agreed to work on a temporary Recovery Fund to prepare and support the recovery, providing funding through the EU budget to programmes designed to kick-start the economy, in line with European priorities. The latter will be discussed and, hopefully, adopted by the European Council Summit, to be convened on 23 April 2020.

It is too early to assess whether these very recent decisions will really provide resolution to combat the crisis. However, this last proposal endorsed by the Eurogroup could be amplified by the setting up of a European COVID-19 Investment Recovery Bond, which could be backed by an EU institution (i.e. the European Investment Bank) or even by a European guarantee, based on a new EU budget (MFF) that incorporates greater own resources coming from new EU taxes (i.e. carbon tax, digital tax etc).

These measures could be stepped up during the stability and recovery phases of the crisis. Nonetheless, there is also a need to address the sustainability of some of these measures and how public budget deficits will be managed in the mid to long term. In this context, the difficult question of increasing national and European tax burdens will have to be discussed, no matter how unpopular these measures might look like. The fight against this pandemic is not only a question of solidarity amongst EU countries and citizens, but it also becomes a question of inter-generational solidarity.

⁷ The US has approved a stimulus package worth to USD 2 trillion

EXECUTIVE SUMMARY

The COVID-19 global pandemic has shown to the world that no governments from either developed or developing nations were ready to prevent or to manage such an abrupt external shock. The viral contagion hit China, followed by Europe and carried on to the South and East Mediterranean, Africa and other parts of the world.

On 11 March 2020, the World Health Organisation (WHO) declared **COVID-19**⁸ a **global pandemic**, after 118,000 infection cases and 4,291 deaths were recorded in 114 countries. This declaration alarmed the world about the severity of the disease, the speed of viral contagion and the need for governments to act with prompt and credible policy measures in order to contain it and to manage the socio-economic consequences.

The pandemic started in February 2020 China (in Wuhan in the province of Hubei), spread rapidly to other parts of the world.

As of 21st April, globally there are more than 2,5 million COVID-19 cases, with more than 173,700 deaths and more than 660,800 recoveries (and the numbers are increasing every hour).

After China, the virus propagated in Italy (mainly in the North) and then spread to the whole country, continued to Spain and to the other European countries. The contagion of the disease carried on to the Middle East, Africa and all parts of the globe. Testing has been lacking everywhere but particularly in low and middle-income countries, where health systems are relatively weaker compared to high-income countries.

In the South and East Mediterranean, the contagion started in mid-February in Egypt and other countries of this region. By the end of February, the contagion continued in Sub Saharan Africa, with the first case registered in Nigeria. At the beginning of April, the pandemic was seemingly spreading at a lower rate in Africa, as compared to Europe, but at the same time, testing in Africa was very low to establish a correct picture of the infection's prevalence. In Africa, particularly in the Sub Saharan region, healthcare systems are much less prepared to deal with a severe health crisis, as compared to Europe.

To contain the viral contagion, governments adopted preventive and complete or partial confinement measures, ranging from awareness campaigns, COVID-19 information disclosure, travel restrictions, mandatory quarantine, lockdown and social distancing. They also opted for progressive virus sample testing of populations and a few considered issuing immunity certificates

⁸ Coronavirus disease 2019 (COVIT-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Common symptoms include fever,

or COVID-19 passports for people who recovered from the disease and acquired immunity⁹¹⁰. The prevalence of testing and the timing, implementation and enforcement of the confinement policy decisions were essential to understand and to limit the contagion and to reduce the pressure on national healthcare systems and their effectiveness in saving people's lives. Moreover, the capacity of national healthcare sectors, including the existing infrastructure and its immediate potential extension to face the health crisis, the quick access to and coverage of testing, equipment (such as ventilators), garments (such as masks and medical gloves), medication (based on available agreed medical protocols) and medical staff, the capability to precisely diagnose asymptomatic, moderate or severe cases together with the effectiveness of treatment, are all determinant factors in containing and managing the health crisis.

The uncertainty surrounding the virus and its suppression, the undefined timeframe potentially needed (12-18 months) to deliver effective treatments¹¹ and vaccines and the consequences of the extensions of the period of lockdown and confinement (increased by up to three times in Italy and Spain, for instance) and the absence of a clear strategy on the return to "normality" post lockdown without risking entering another infectious wave, together with the global nature of the COVID-19 pandemic, have put undue pressure on economies and financial markets worldwide.

The COVID-19 global pandemic shock has tested the capacity of our systems' resilience to respond to high-impact shocks and to adapt to emerging transitions (see Ayadi (2020)). This shock has proved to be challenging and costly to contain and to manage with uncoordinated and poorly synchronised national policies. Indeed, containing the disease with draconian lockdowns and restrictions on mobility measures have been the preferred options for saving lives - but at a high financial and socio-economic cost and seemingly without considering the global nature of this crisis. The G20 leaders and international organisations have mobilised several USD trillions to mitigate the economic and social consequences of the health crisis and the draconian containment measures. In several countries in Europe, during the month of April, containment policies are being progressively lifted to ease the pressure on economic activity. It remains to be seen, however, whether the timing and effectiveness of these policies are adequate

If these policies (of containment and mitigation) had been different (in timing and level of preparedness), would they have been more effective in saving lives and less costly economically? Should policies have been coordinated and synchronised globally (or regionally) to leverage on the experiences of countries (and regions) that were hit first? Possibly, but certainly with more global/regional/national preparedness and coordination, in terms of more reliable information systems, sounder healthcare systems, timely widespread, effective and speedy testing capabilities (critical for information reliability and effectiveness of policy measures), availability and

⁹ Germany is leading in the number of tests worldwide;16 tests per thousand population, followed by Austria (13.7) and Italy (13.6). Data for 08 April 2020 from Statista.

¹⁰ Germany and the UK are looking respectively at issuing immunity certificates and COVID-19 passports . Italy and others are examining these ideas.

¹¹ A number of medical protocols (e.g. the anti-malaria drug Hydroxychloroquine) have been used, despite little evidence regarding their effectiveness.

affordability of medical equipment and medication, effective protection of medical staff, speed and accessibility of research and development and more knowledge about viral infections, their behaviours, treatment and vaccines to better predict and manage global pandemics.

In this study, we provide a comprehensive overview on the evolution of the viral contagion in the Mediterranean and Africa, whilst surveying the policy responses in ten countries in this geographical region. We propose a three, mutually interactive pillar assessment matrix of the policy responses. The three pillars are:

1. Preparedness and effectiveness of healthcare systems;
2. Completeness and timeliness of COVID-19 containment policies;
3. Comprehensiveness (and solidarity) of socio-economic mitigation policies;

From a preliminary analysis, we can provide some consideration on the assessment, based on the ten countries surveyed. First, the level of preparedness of healthcare systems is low in all countries surveyed.

Second, all countries have implemented socioeconomic measures promptly, recognising the critical impact of lockdowns on their economies. The main area of intervention is monetary policy measures to increase liquidity and fiscal alleviation, with particular emphasis on employers and employees in MSMEs. All countries should further enhance their support for the most vulnerable, such as occasional/ informal workers, those most affected by lockdowns, particularly countries in which the percentage of this category of worker is high.

Third, lockdown policy seems to be effective in reducing the spreading of the virus, when observing the trends in Italy and Spain. The containment of the population led to flattening the contagion curve. Nevertheless, once a sort of “steady state” of the epidemiologic curve is reached, if the healthcare system has not been strengthened and PPEs have not been widely available, the risk of a new outbreak is high and, therefore, lockdown measures cannot be relaxed. However, what is the socio economic impact of extending lockdown periods, particularly on the poorest and most vulnerable (e.g. the mental health of an ageing population and the disabled, informal workers etc)?

For the way forward, we will continue updating the assessment matrix on an [online research platform](#) in order to provide a better understanding of the capacity and the effectiveness of policy response to COVID-19 in the countries surveyed. We will integrate the matrix with other countries to compare the different levels of severity in containment measures, different timing in responding both with containment and with mitigation policies, and the capacity of different healthcare systems to provide a more comprehensive and complete assessment analysis.

1. Introduction

On 11 March 2020, the World Health Organisation (WHO) declared **COVID-19**¹² a **global pandemic**, after 118,000 infection cases and 4,291 deaths were recorded in 114 countries. This declaration alarmed the world about the severity of the disease, the speed of viral contagion and the need for governments to act with prompt and credible policy measures, in order to contain it and to manage the socio-economic consequences.

The pandemic started in February 2020 China (in Wuhan in the province of Hubei), spread rapidly to other parts of the world.

As of 21st April, globally there are more than 2,5 million COVID-19 cases, with more than 173,700 deaths and more than 660,800 recoveries (and the numbers are increasing every hour).

After China, the virus propagated in Italy (mainly in the North) and then spread to the whole country, continued to Spain and to the other European countries. The contagion of the disease carried on to the Middle East, Africa and all parts of the globe. Testing has been lacking everywhere but particularly in low and middle-income countries, where health systems are relatively weaker compared to high-income countries.

In the South and East Mediterranean, the contagion started in mid-February in Egypt and other countries of this region. By the end of February, the contagion continued in Sub Saharan Africa, with the first case registered in Nigeria. At the beginning of April, the pandemic was seemingly spreading at a lower rate in Africa, compared to Europe but, at the same time, testing in Africa was very low to establish a correct picture of the infection's prevalence. In Africa, particularly in the Sub Saharan region, healthcare systems are much less prepared to deal with a severe health crisis, as compared to Europe.

From China, to Europe, the Mediterranean, Africa and beyond unprecedented, aggressive policy measures have been taken to limit the rapid spread of the virus and to manage the socio-economic consequences. Drastic containment measures ranged from confinement and social distancing, self-isolation and partial to total lockdown. These measures have not been without severe social and economic consequences. Other measures favoured "herd immunity" meaning that when enough people are immune to the disease, the chains of transmission are broken. The UK government opted for this policy alternative to avoid a heavy burden on the economy. However, soon after, the government changed the course of action and opted, for social distancing and lockdown. The decision and effectiveness of either measures, or a combination of both, depend on several factors, such as the completeness, and the timing of policy actions, the fiscal strength of the country, the robustness and resilience of national healthcare systems, the

¹² Coronavirus disease 2019 (COVIT-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Common symptoms include fever,

virus testing and laboratories capacity and quick access to essential equipment and mobilisation and effective protection of medical staff, the age pyramid and the initial health condition of the population, the level of a country's economic development and fiscal space, plus citizens' awareness and responsibility.

In Europe, Italy and Spain have been hit the hardest by COVID-19. The containment measures came late and were not enforced sufficiently, despite becoming stricter as the contagion progressed. These measures did not prevent the massive viral contagion and the near collapse of unprepared and unequipped healthcare systems. The lack of equipment (e.g. masks, medical gloves, ventilators...), the lack of approved effective medical protocols to treat patients in severe conditions, the low number of intensive care units, the inadequate protection of doctors and nurses who reported the heightened pressure that continued with the increasing number of patients. As of this date (21 April), the numbers of infections, deaths and recoveries in Italy and Spain are respectively 183,957 and 204,178 cases, 24,648 and 21,282 deaths, 51,600 and 82,514 recovered. In Italy, infected 94 doctors and 26 nurses died whilst helping diseased patients.

The contagion continued its way to the South and East Mediterranean, and African countries. Observing the rapid progression of the damage caused by the coronavirus in the North Mediterranean, governments in the South, East Mediterranean and Africa have activated strict containment measures to avoid the same scenarios as Italy and Spain. Several countries, such as Jordan, Morocco and others, have anticipated and enforced rigid lockdown measures and adopted medical protocols (such as the one based on hydroxychloroquine used to treat malaria, despite the lack of scientific evidence of their effectiveness to treat the novel disease) that were believed to treat patients with severe COVID-19 symptoms. Up until the time of writing in April, it is not certain whether these policy and health measures will be effective in stopping the viral contagion and reducing the number of deaths.

This health emergency has put pressure on world trade, on global transport and the confidence of households and firms. In addition, the drastic containment measures taken by governments to limit the contagion and to ease the pressure on health care systems, have had a direct negative impact on various economic activities, such as logistics (including transportation, warehousing, commercial distribution), tourism, fairs, recreation and retail distribution. Firms have sharply increased teleworking and paid leave, whilst a number of government activities (such as education, justice, etc.) have been suspended. There are simultaneous demand and supply shocks, hitting fragile economies more than robust ones. Financial markets have been disrupted. As confidence deteriorates further, liquidity has reduced. This double shock may last more than a few months and the effects may be devastating on the global economy.

Trying to avert this bleak scenario, robust fiscal stimuli and monetary and financial measures have been designed to limit the short-term disruption and to support labour markets. These actions were taken nationally, based on respective fiscal situations. The European Union response was below the expectations of the EU Mediterranean countries, hit hard by COVID-19. On the 26 March 2020, no agreement was achieved on issuing an EU Corona bond to support countries

experiencing financial distress.

On 26 March 2020, the UN's Secretary General described the situation as "a war with a virus that needs a war-time to fight it", and he called for G20 solidarity to respond to this global pandemic¹³. The same day, the G20 leaders committed "to do whatever it takes" to overcome the pandemic¹⁴ and pledged to inject USD 5 Trillion into the global economy. Further measures, outlined in this study, are being taken by international organisations to reduce the damage to the world economy.

In the meantime, scientific, medical and pharmaceutical communities across the globe have stepped-up their efforts to deliver treatments and vaccines. According to the WHO, COVID-19 treatments and vaccines will be available in 12-15 months. Assuming that the virus would not mutate, the production capacity of vaccines and treatment is sufficient to fulfil the global demand and access to medication would reach the poorest and most vulnerable, and the period of uncertainty would end.

This major disruption is testing the resilience of our social and economic systems to withstand external shocks. Although it is clear that there might have been success, to some degree, in being able to prepare for and to predict extreme events linked to natural disasters and/or climate change and/or financial crises, there has been little to no preparation globally for a major health crisis, such as the one being experienced by humanity today.

Against this evolving context, this study provides a regional and country diagnosis of the spreading of COVID-19 between February and April 2020 in the Mediterranean and Africa; it assesses the preparedness of national healthcare systems and examines the policy responses of the governments in ten countries in the Mediterranean and Africa; it proposes a framework to assess policy response functions and recommends a way forward.

¹³ <https://www.un.org/en/coronavirus/war-needs-war-time-plan-fight-it>

¹⁴ <https://www.gov.uk/government/news/g20-leaders-summit-statement-on-covid-19-26-march-2020>

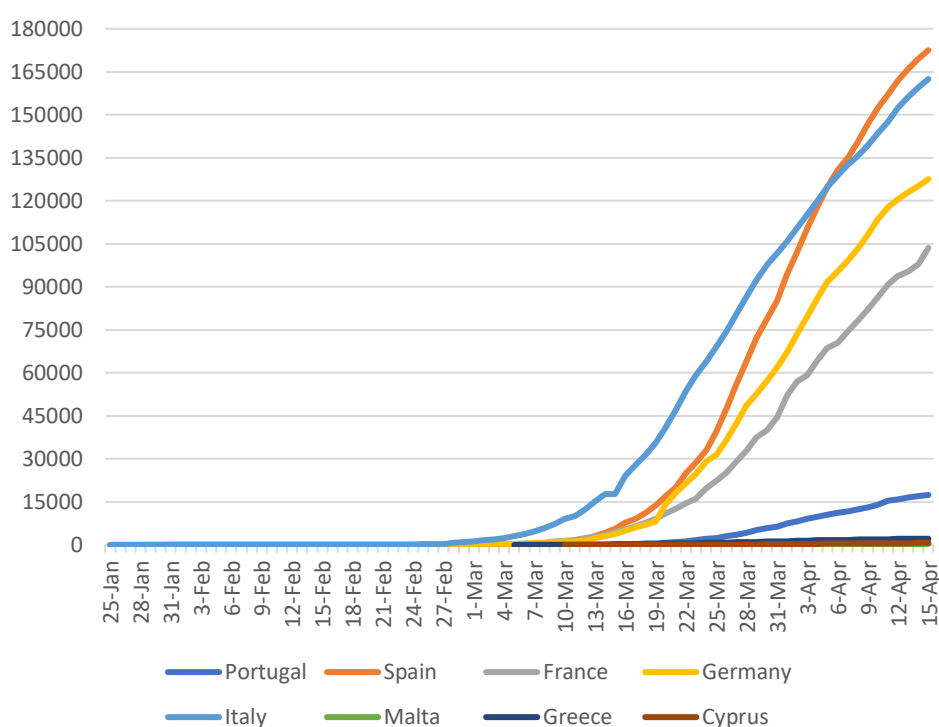
2. COVID-19 in the North Mediterranean: Diagnosis and Policy Responses

This section provides the regional diagnosis of COVID-19 and the level of preparedness of national healthcare systems to manage the health crisis in the Northern Mediterranean/Southern Member countries of the European Union. It delves into Italy and Spain, the epicentres of the global pandemic in Europe. It describes the process of COVID-19 contagion and its characteristics and examines the national policy measures for containment of the contagion and mitigation of the consequences of the health crisis.

2.1 REGIONAL DIAGNOSIS

The first cases of COVID-19 in the region were detected at the end of January. Figure 1 shows that the infection started to spread exponentially a few weeks after the first confirmed cases. Italy and Spain have been the epicentres of the pandemic in Europe and the first countries in the world to be severely hit by the virus after China (Province of Hubei).

Figure 1 - Northern Mediterranean Countries - Cumulative Curves Covid-19 Cases



Source: Author's elaboration with data retrieved from <https://www.ecdc.europa.eu/> (April 15, 2020)

In only one week, the last week of March, confirmed cases in Italy and France almost doubled and nearly tripled in Spain. In the first week of April, the variation in cases remained high and close to

the values of the previous week, denoting a high increase in cases. Nevertheless, Italy showed a slight decrease in the number of new cases registered during the first week of April, a trend confirmed the week after, suggesting a lowering of the contagion's speed and the flattening of its curve (see Tab. 1). The other countries, such as Portugal and Greece, present a variation considerably lower than Italy and Spain. All countries showed a weekly positive variation, suggesting a general increase in the speed of contagion. Tab.2 reports total confirmed cases by country from the beginning of the contagion. Cases and deaths numbers differ amongst countries because of the capacity to diagnosis and treat the disease¹⁵. This capacity depends on the medical infrastructure, the availability of tests and the effectiveness of treatment protocols used. Furthermore, in the majority of countries, testing has been prioritised for symptomatic people, leading to a bias in the identification and a likely underestimation of the viral prevalence.

Table 1 - Northern Mediterranean Countries 23 March-13 April – cases, variations, deaths and recoveries

Country	Cases 1. (23-Mar)	Cases 2. (30-Mar)	Cases 3. (6-Apr)	Cases 4. (13-Apr)	Variation I (23-30-Mar)	Variation II (30-Mar - 6-Apr)	Variation III (6-13-Apr)	Recovered (13Apr)	Deaths (13Apr)	1st case
Cyprus	95	214	465	633	+ 119	+ 251	+ 168	65	11	08-Mar
France	16,018	40,174	98,010	132,591	+24,156	+57,836	+34,581	27,186	14,393	23-Jan
Germany	24,774	57,298	102,024	127,854	+32,524	+44,726	+25,830	64,300	3,022	26-Jan
Greece	617	1,149	1,755	2,114	+ 532	+ 606	+ 359	269	98	25-Feb
Italy	59,138	97,689	132,547	156,363	+38,551	+ 4,858	+23,816	34,211	19,899	29-Jan
Malta	90	151	241	384	+ 61	+ 90	+ 143	44	3	06-Mar
Portugal	1,600	5,962	11,730	16,934	+ 4,362	+ 5,768	+ 5,204	277	535	01-Mar
Spain	28,572	78,797	135,176	169,496	+50,225	+56,379	+34,320	64,727	17,489	30-Jan

Source: Author's elaboration with data retrieved from <https://www.ecdc.europa.eu/> and <https://www.worldometers.info/coronavirus/#countries> (15th of April 2020)

¹⁵ A specific treatment of COVID-19 is not available but a number of treatments protocols have been used in different countries to cure the patients.

Table 2 - Northern Mediterranean Countries Covid-19 situation (13 April 2020)

Country	Cases (Confirmed 13-Apr)	Recoveries (% of confirmed cases 13-Apr)	Deaths (% of confirmed cases 13-Apr)	Still Positive (% of confirmed cases 13-Apr)	Test per million (13-Apr)	Days (1st case-13 Apr)
Cyprus	633	10.27	1.74	87.99	14,845	36
France	13,2591	20.50	10.86	68.64	5,114	81
Germany	12,7854	50.29	2.36	47.34	15,730	78
Greece	2,114	12.72	4.64	82.64	4,055	48
Italy	15,6363	21.88	12.73	65.39	16,708	75
Malta	384	11.46	0.78	87.76	40,913	38
Portugal	16,934	1.64	3.16	95.20	16,046	43
Spain	169,496	38.19	10.32	51.49	12,833	74

Source: Author's elaboration with data retrieved from <https://www.ecdc.europa.eu/> and <https://www.worldometers.info/coronavirus/#countries> (13th of April 2020)

There are three major problems related to this virus recorded in the data: 1) the exponential rate of expansion; 2) the duration of the disease before recovering; 3) the high number of deaths registered. An additional problem is the poor level of scientific knowledge about this novel virus, making the consequences on health hard to predict and the process from no, moderate to severe symptoms not easy to qualify. After more than two months since the first cases registered in Italy and Spain, Tab. 2 shows that more than 60% in Italy and 50% in Spain have not recovered. The fatality-case rate in Italy is the highest in the region (12.73%), followed by Spain (10.32%). In one month of COVID-19 spreading in Greece, 12.72% of the confirmed cases recovered, but only 1.64% in Portugal. This data, combined with the high number of cases and deaths, confirms the poor knowledge about the disease and denotes the difficulty healthcare systems in the region face in managing the situation.

Public healthcare systems in Europe are considered to be developed, with some countries performing better than others. Governments in high-income countries increased their expenditures on healthcare, particularly after the 2008 financial crisis. However, out-of-pocket spending shows a downward trend, with some differences amongst regions¹⁶. In the majority of Southern European countries reliance on out-of-pocket expenditure is generally higher than in Northern European countries, the only exception being France (See Tab.3). In particular, Italy and Spain, the most affected COVID-19 countries, in 2016 registered 23.1% and 23.9% respectively out-of-pocket expenditure over their total health expenditure (from 20.6% and 19.4% respectively in 2009)¹⁷, accounting for 2% and 2.1% respectively of GDP (2018).

¹⁶ Xu K, Soucat A & Kutzin J et al., Public Spending on Health: A Closer Look at Global Trends. Geneva: World Health Organization; 2018 (WHO/HIS/HGF/HFWorkingPaper/18.3).

¹⁷WB data, <https://data.worldbank.org/>, (28th of March 2020).

Italy is the country with the highest number of tests performed per million (11,937 tests per million), followed by Germany (10,962 tests per million). Nevertheless, the two countries have implemented very different strategies in testing. Italy has used testing on people presenting with mild symptoms. Germany adopted a widespread testing approach from the early beginning of the contagion. In fact, in Germany a better and prompted coordination between independent research centres and laboratories for the development and analysis of tests, combined with the high contribution, both public and private, for research and development, have guaranteed a fast and efficient response to the Covid-19 pandemic¹⁸.

Eurostat reports around a 3.3% decrease in the availability of hospital beds in the majority of EU member states' public healthcare structures, between 2012 and 2017. Instead¹⁹, an increase has been shown in for-profit private hospitals. In the most affected countries (i.e. Italy, Spain and France), governments have called on private bodies to collaborate with the public ones to manage the health emergency. However, this was not sufficient to fulfil the exponential number of patients in a critical condition. Countries outside Europe offered external help (the provision of PPE - Personal Protective Equipment - and healthcare workers). Furthermore, both Spain and Italy have started adapting private and public structures, other than hospitals, to treat Covid-19 affected patients (e.g. the main Ice Rink in Madrid, Spain and the Fiera di Bergamo, Italy). Germany, the most equipped country in terms of beds, both normal and ICU (28,000 ICU beds, with 25,000 ventilators) has been helping²⁰ Italy and France to treat the growing number of patients.

The number of physicians per 1000 people varies amongst countries (Tab. 3). In Italy and Spain there are, respectively, 4.0 and 3.9 physicians per 1,000 people, and respectively 6.7 and 5.7 nurses per 1,000 people, higher than in other EU countries. Nevertheless, they are not sufficient to handle the extent of the emergency the two countries are facing. The best equipped country in the region is Germany, where ICUs per 1,000 people are 6.0, and hospital beds 8.0 per 1,000 people. Nurses and physicians respectively make up 12.9 and 4.3 (per 1,000 people), and health expenditure accounts for 11.2 % of GDP.

¹⁸ See <https://reaction.life/why-is-germany-able-to-test-for-coronavirus-so-much-more-than-the-uk/> and <https://www.spectator.co.uk/article/how-germany-has-managed-to-perform-so-many-covid-19-tests>

¹⁹ Eurostat Statistics Explains Report (2017), retrieved from https://ec.europa.eu/eurostat/statistics-explained/index.php/Healthcare_resource_statistics_-_beds#Hospital_beds, 28th of March 2020.

²⁰ <https://www.ilssole24ore.com/art/coronavirus-47-italiani-curati-terapia-intensiva-germania-ADUmWAG>

Table 3 - Northern Mediterranean Countries - Healthcare Systems Overview²¹

Country	Current health expenditure (% of GDP) (2018)	Out-of-pocket expenditure (% of GDP) (2018)	Hospital beds Total and (ICU) (per 1,000 people) (2018)	Nurses (per 1,000 people) (2018)	Physicians (per 1,000 people) (2018)
Cyprus	6.7	3.0	3.4 (..)	5.3	2,00
France	11.2	1.1	6.0 (3.1)	10.8	3.4
Germany	11.2	1.4	8.0 (6.0)	12.9	4.3
Greece	8.5	2.8	4.2 (3.6)	3.4	4.6
Italy	8.8	2.0	3.2 (2.6)	6.7	4.0
Malta	9.3	3.2	4.7 (..)	9.00	3.8
Portugal	9.1	2.5	3.4 (3.3)	6.7	3.3
Spain	8.9	2.1	3.0 (2.4)	5.7	3.9

Source: Author's elaboration with data retrieved from WB <https://data.worldbank.org/> and OECD <https://data.oecd.org/> (28th of March 2020)

In what follows, we delve into the two countries i.e. Italy and Spain, where the contagion has resulted in thousands of deaths and a near-collapse of the national healthcare systems.

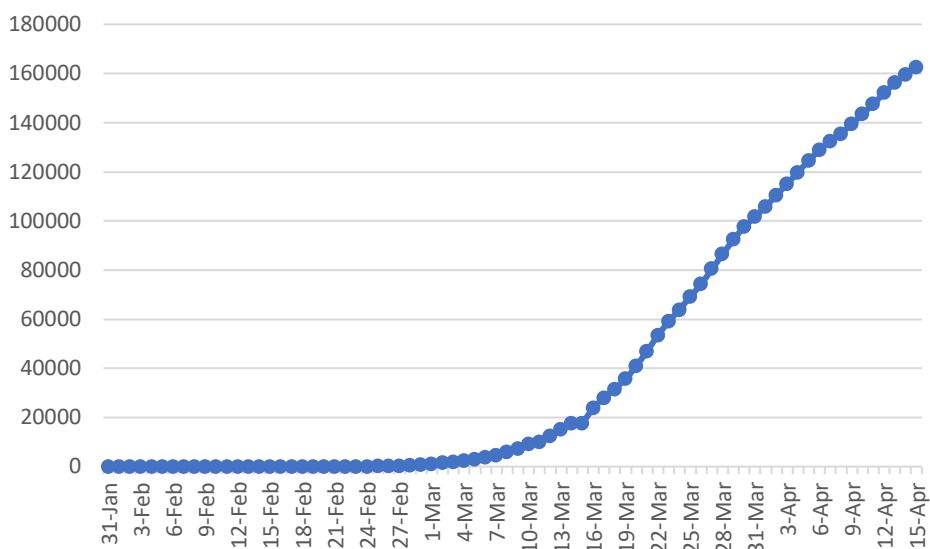
2.2 ITALY²²

Italy was the first country in Europe, after China (City of Wuhan, Province of Hubei) to be contaminated. The first registered COVID-19 infection occurred on January 30th when two cases (Chinese tourists in Rome) were confirmed. One week later, an Italian man contaminated with the virus, was repatriated back to Italy from the city of Wuhan. A cluster (of 16 confirmed cases) was later identified in Lombardy, a northern Italian region on the 21st February, with a first death on 22nd February. Since then and until 15 April 2020, the number of confirmed cases has increased exponentially, reaching 165,155 people, with 38,092 recoveries, 21,645 reported deaths and 105,418 that remain positive cases. Amongst the latter, 64.7% is confined at home, 31.09% hospitalised and 4.2% in ICU.

²¹ Last available data from the WB and OECD is reported. As for Cyprus, Malta, Greece and Portugal, data on Nurses and Physicians has been retrieved from WB (2016) which for Nurses also accounts for Midwives. As for Cyprus and Malta, Hospital beds data also comes from WB data (2016).

²² Contribution by Sara Ronco. Comments by Cinzia Alcidi.

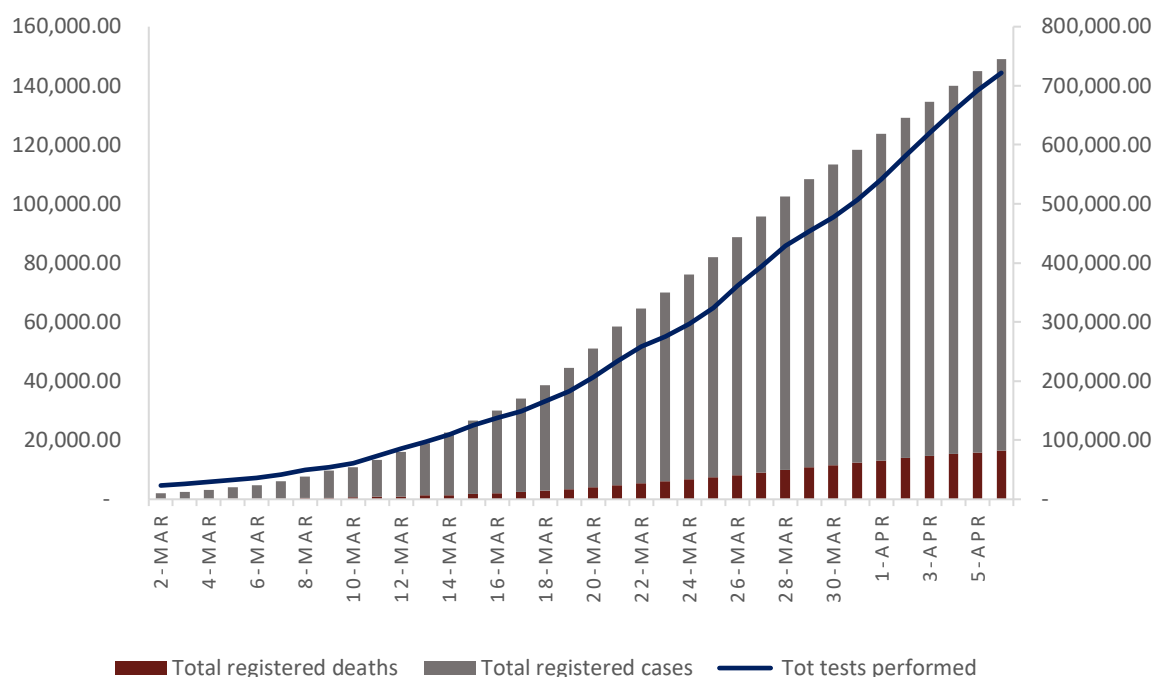
Figure 2 – Italy Confirmed Cases - cumulative curve



Source: Author’s elaboration with data retrieved from European Centre for Disease Prevention and Control, www.ecdc.europa.eu, (15.04.2020)

Reported deaths show Italy to be the country with the world’s leading case-fatality rate of 12.73 percent (13 April). Even if the explanatory power of this measure in describing the effective mortality rate of the virus is widely discussed (see M. Villa 2020), Italy still presents one of the highest numbers of deaths (16,523 on April 6). About 85% of the infected cases that were reported as deaths were aged over 70, according to the National Institute of Health (ISS). Age distribution could play a role in raising the fatality rate, in a country where about 23% of the population is over 65 years old, one of the oldest populations in the world. It is also important to stress that confirmed cases (and deaths) are an underestimation of the infected population and do not explain the prevalence of the viral infection in the country because of the low number of tests. Italy is amongst the best performing countries in the number of Covid-19 tests (11,937 tests per million performed, as of 6th of April). By the same date, Germany performed 10,962 tests per million. Nevertheless, Italy does not have the capacity to perform wide-scale testing, prioritising the testing of people with symptoms and healthcare workers.

Figure 3 – Italy Confirmed Cases, Deaths and Tests (6 April)



Source: Author’s elaboration with data retrieved from <http://salute.gov.it> (06.04.2020)

The contagion has spread more rapidly in the north of the country, with Lombardy the most affected region, with 37,298 confirmed cases (as of 27th of March) representing 43.2% of the total cases and the highest number of reported deaths, reaching 5,402 (see Fig.4). Lombardy is also the region with more tests for Covid-19 (95,860 out of 394,079 for the country) and the highest recovered number of cases (8,001)²³. By comparison, Italy follows South Korea (the second best country worldwide in terms of testing), performing 316,644 COVID-19 tests, followed by Germany 167,000 (as of March 20)²⁴.

²³ <https://github.com/pcm-dpc/COVID-19/tree/master/schede-riepilogative/regioni>

²⁴ <https://www.statista.com/statistics/1028731/covid19-tests-select-countries-worldwide/> (consulted on March 29)

Figure 4 – Italy Confirmed cases by region (as of 22nd of March 2020)



Source: Statista, www.statista.com (22.03.2020)

Whilst the south did not follow the same rapid diffusion of the virus compared to the north, distinct behaviours and respect for confinement measures have resulted in a delayed wave of infections and prevented an already overburdened healthcare system from becoming overrun.

Even if Northern Italy has one of the best public healthcare systems in the western world, the exponential increasing of people infected, particularly those in need of intensive-care beds, has seriously challenged the system. This is a healthcare system that benefitted from general government expenditure equating to 8.84% of GDP in 2017²⁵ despite continuing low GDP growth rates (0.3% in 2019).

In 2017, the national healthcare infrastructure in Italy accounted for approximately 191,000 hospital beds per ordinary hospital stay (of which 23.3% were in accredited private facilities), 13,050 hospital beds per day-hospital (almost totally public, 89.4%) and 8,515 daily surgery beds (in public prevalence 78.2%)²⁶. At the national level, 3.2 beds per 1,000 inhabitants and 2.6 per 1,000 dedicated to acute care activities²⁷ were available (in 2018). The Ministry of Health

²⁵ Eurostat database, year 2017. The country presents around the same level of expenditure as for recent years. The expenditure in neighbouring countries, such as France and Germany, in the same year (2017) accounted for around 11% of GDP.

²⁶ All the data on NHS comes from the official Ministry of Health website and the 2017 report retrieved from http://www.salute.gov.it/imgs/C_17_pubblicazioni_2879_allegato.pdf.

²⁷ OECD health indicators, consulted 1st of April 2020.

confirmed²⁸ that the country had 5,090 ICU beds before the crisis and expected to increase this number by at least 50%. In terms of healthcare personnel, in 2018 Italy had 4.0 physicians per 1,000 people and 6.7 nurses per 1,000 people.²⁹

Furthermore, in 2017, 55.0% of public hospitals had an emergency department and around 65% of hospitals had ICUs. Comparatively, Italy's hospital beds account for 318.17 per 100,000 inhabitants, significantly lower than Germany (800.23 beds per 100,000 inhabitants), or France (598.02 beds per 100,000 inhabitants)³⁰. Ventilators are of particular importance in ICUs to treat the worst cases of COVID-19. Italy accounted for 18,961 ventilators. At the beginning of March 2020, China sent to Italy 31 tons of materials, including crews for respiratory machinery, masks, anti-virus medicines along with blood and plasma. Crowd-funding initiatives, launched by Italian citizens and entrepreneurs, helped the most affected hospitals and to build new ones. Other donations came from official channels such as UNICEF, the Red Cross and the Italian Civil Protection. Furthermore, the Italian Alpine is building a new field hospital, with the collaboration of EMERGENCY in Bergamo, one of the most affected cities. Later on, Germany admitted 47 Italian COVID-19 patients to their ICU structures in six different Länder: Renania settentrionale-Vestfalia, Bassa Sassonia, Sassonia, Assia, Brandeburgo and Berlino. The majority of patients come from the northern regions of Italy.

Because of the unprecedented number of patients and number of deaths, Italian healthcare staff suffered mentally and physically, with 51 physicians dead and more than 6,400 infected healthcare workers. In March, to support active doctors and nurses, the government called in retired doctors and students, private healthcare centres (staff and equipment). In addition, Cuba, Russia and Albania sent more physicians and healthcare workers.

a. National policy measures for the containment of contagion

Following the WHO international declaration of emergency, coinciding with the first two cases confirmed in Rome in January 2020, **preventive measures** were implemented:

- Temperature control at airports (already adopted a month earlier, as part of the monitoring of the situation in Wuhan).
- All flights to China were suspended, with the exception for cargo flights.

When the northern Italian regions started to show a critical and fast increase in the speed of the contagion, a decree-law introduced **containment measures** to manage the epidemiological emergency from COVID-19 (23th of February):

- The strongest containment measures began to be applied to individual regions or municipalities called "red areas" (21st February) and then extended throughout the North of the country on the 8th of March.

²⁸ Euronews reported that Italian doctors confirmed the need for COVID-19 patients to remain in ICU for 15 days on average (and 5/6 days in "normal" conditions) (<https://it.euronews.com/2020/03/20/coronavirus-quali-paesi-europei-hanno-piu-posti-in-terapia-intensiva>).

²⁹ OECD <https://data.oecd.org/> data for 2018.

³⁰ Eurostat data for 2017.

- The next phase concerned the extension of limiting circulation across the entire national territory (9th of March, a national quarantine started).
- More restrictions have been extended to the whole national territory such as: suspension of demonstrations and events (in public or private places); suspension of childhood and school education services and educational trips; suspension of the opening of museums to the public; suspension of bankruptcy procedures and public office activities, without prejudice to the provision of essential and public utility services; the application of the quarantine with active surveillance of those with close contact to people affected by the virus; the suspension of work for some types of business and the closure of some types of commercial activity; limitation on access or suspension of the services of the transport of goods and people, except for specific exceptions³¹.
- Further measures were imposed (22nd of March): closure of all non-essential or strategic production activities. Only groceries, pharmacies, basic necessity shops and essential services were allowed to stay open; a list of what has been defined as “strategic production activity” was developed by the government, in collaboration with the labour unions.
- The first measures were supposed to be in place for two weeks, but they have been extended until the 3th of April. In the decree-law of 1st of April 2020, the lockdown period was extended until the 13th of April, amounting to 5 weeks of national lockdown, with the possibility of a further extension.
- In particular, the decree-law of 25th of March 2020 n.19 specifies that the application of the measures can be adapted and extended according to the COVID-19 epidemiological trend until the end of the state of emergency, set at 31st of July 2020.

As for the re-opening of schools and universities, the Ministry of Education announced the possibility of postponing it beyond the previously fixed date of the 18th of May 2020. On the 6th of April, a decree-law regulated the measures to apply until the end of the 2019-2020 school year and to plan for the opening of the next one, virtually.

b. National policy measures for the economic impacts mitigation

The economic measures applied to the red zones that have been the most and the more rapidly affected by the restrictions. They mainly consisted of suspending the deadlines for payments and other obligations, such as rents and bills.

At the beginning of March, the European Commission (EC) adopted an extraordinary temporary framework allowing member states to be more flexible in guarantee funds, loans subsidies and aid to their citizens and companies. Furthermore, the EC promised Euro 25 billion to be distributed amongst member states to face COVID-19 emergency. With the enlargement of the lockdown to all countries, further recourse to Italian indebtedness has been approved by Brussels in order to finance public healthcare, citizens and industries.

³¹ All the information on the governmental measures have been retrieved from the Italian Government official website www.governo.it

The decree-law of the 17th March 2020, n°18 followed with four main areas of intervention:

1. Financing healthcare system (e.g. employment of new healthcare staff, purchase more beds, subsidised loans or non-repayable grants to manufacturers of medical devices);
2. Support for workers and companies, with the aim that no one will lose their jobs due to the emergency (e.g. 9-week temporary layoff; compensation of Euro 600 for self-employed workers; bonus for baby-sitting; measures favouring the agricultural and fisheries sectors);
3. Support the liquidity of families and businesses (e.g. moratorium on loans to micro, small and medium-sized enterprises, emergency funds; introduction of a counter-guarantee mechanism for banks);
4. Tax measures, in order to prevent obligations and obligations from aggravating liquidity problems (temporary suspension of withholding payments, social security and welfare contributions and premiums for compulsory insurance; worker bonuses);

Important measures have also been taken to support schools in their need to continue the school year virtually. The Government provided Euro 85 million to be used by schools across the country: to provide the poorest families with the technology to enable their children to attend courses; to help schools with on-line platforms to provide lessons; and to train teachers on new and more technology-based distance-teaching modes.

The decree also provided support for companies that convert to other productions, such as manufacturing masks and sanitary products. 25 companies have reconverted to the production of Personal Protective Equipment (PPE). Euro 50 million loans were provided to businesses by the government, together with Euro 400 million reserved for medium-term development contracts. The ambition is to produce masks for the entire population.

COVID-19 hit Italy with an already high of Debt/GDP (134.8% in 2018)³². During recent years the economy started to show some improvement, with a slight decrease in the unemployment rate (10.6%, 2018 from 11.2% in 2017 and 12.7% in 2014)³³, a decrease in bankruptcies (-4.9%, 2019)³⁴ together with the share of the population at risk from poverty or social exclusion (27.3%, 2018, down from 30% in 2016)³⁵.

On 22nd of March, additional measures to suspend non-essential economic activities were announced, with additional measures to help workers and employers, depending on the type of activity.

On April 6 a new decree-law introduced urgent measures regarding access to credit and postponing obligation for companies. The State offered guarantees for a total of approximately Euro 200 billion in favour of banks providing loans to companies in any form (the percentage

³² Eurostat data consulted the 28th of March 2020.

³³ Eurostat data consulted the 28th of March 2020.

³⁴ www.crif.it/area-stampa/comunicati-stampa/2019/agosto/fallimenti-imprese-2-trimestre-2019/, consulted the 28th of March 2020, data for the second trimester 2019 published in August 2019.

³⁵ Eurostat data consulted the 28th of March 2020.

guaranteed by the State will be different depending on the size of the enterprise). Furthermore, the decree contains other measures: to enhance exports; to temporarily modify bankruptcy regulation; to strengthen financial transparency obligations.

In Southern Italy, poverty, unemployment and informality are rampant. With the lockdown, people working in the informal sector do not have access to social security and are usually short of savings. On March 28, the government made available to Italian municipalities Euro 4.3 billion to help citizens purchase food and basic necessities, and Euro 400 million to fund coupons for shopping from the first week of April to be used by the most vulnerable.

Italy is facing fundamental challenges linked to the contraction of global trade. As a player in the Global Value Chain (GVC), particularly in manufacturing, which includes significant value added in exports, a contraction in global trade will have negative implications on its current accounts³⁶. The import of mineral products represents 12% of total imports (5.62% crude petroleum, 3.3% petroleum gas)³⁷; the overall energy dependency rate in 2018 was 76.98%³⁸, meaning that a disruption to international trade could critically affect the demand for energy in the country. In 2018, Italy recorded 17.8% Renewable Energy Sources (RES). At the sector level, RES covered 33.9% of electricity production, 19.2% of thermal consumption and 7.7% of consumption in the transport sector³⁹. Further public investment in RES could mitigate future risks related to energy shortage and accelerate the sustainable transformation of the economy towards achieving Sustainable Development Goals (SDGs). The agricultural sector has also faced difficulties because of the lockdown and mobility restrictions. Coldiretti⁴⁰ stressed that 27% of the total working days needed for seasonal crops was usually covered by foreign seasonal workers. Looking at the long term, Prometea⁴¹ expects that, by the end of 2020, the deficit/GDP will reach 6.6% and debt/GDP 150%. In the medium term, Italy will sustain a high level of public deficit (only back again under 3% in 2022). A robust macroeconomic policy and more coordination at the European level will be fundamental for economic recovery.

On April 1st, the President of the European Commission announced a Euro 100 billion package, named SURE, to finance and support measures for people who have lost their jobs. The SURE fund is particularly aimed at countries most affected by Covid-19 and which have registered the highest unemployment benefit claims. It will fund social security measures (i.e. Italian layoffs or the German Kurzarbeit) which are already ensuring 60% remuneration for workers whose companies have stopped and have no incomes, or they have an income significantly lower than usual.

³⁶ Manufacturing value added was 15.05% of total GDP in 2018, for the same year total trade accounted for 60.4% of total GDP (World Bank Data, consulted the 28th of March 2020)

³⁷ Data for 2017, retrieved from www.oec.world, consulted the 28th of March 2020.

³⁸ Statista data, consulted the 28th of March 2020.

³⁹ Gestione Servizi Energetici (GSE), Report on RES in Italy and Europe (26/02/2020), retrieved from <https://www.gse.it/dati-e-scenari/statistiche>

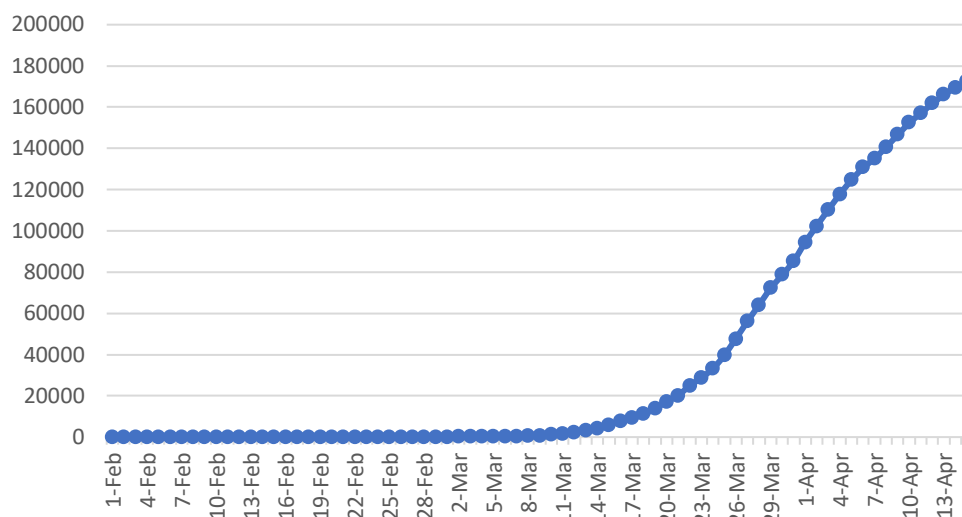
⁴⁰ Coldiretti is the largest association representing and assisting Italian agriculture. The association asked the government to simplify bureaucracy for seasonal workers and extend the expiry date of residence permits in response to the COVID-19 emergency.

⁴¹ <https://www.prometeia.it/news/papporto-previsione-marzo-2020-highlights>

2.3 SPAIN⁴²

The virus started to spread in Spain at the end of February 2020, reaching 177,644 cases on the 15th of April. The same day, the country recorded 70,853 recoveries and 18,579 deaths⁴³.

Figure 5 - COVID-19 Cases - cumulative curve in Spain



Source: Author’s elaboration with data retrieved from www.ecdc.europa.eu 15.04.2020

On March 20, 37% of cases were hospitalised, 29% had developed pneumonia and 9% were admitted to ICU⁴⁴. A few days later (April 6) the percentage of severe cases had changed. The latest report on COVID-19 showed that hospitalised cases increased to 51% of the confirmed cases, 57% developed pneumonia and 5.6% were admitted to ICU⁴⁵. Data shows a decrease in the percentage of ICU cases, whilst reporting an increase in hospitalised cases, representing more than 50% of the total cases detected. However, it is worth mentioning that the number of people affected by the disease may have been underestimated, since the country’s testing capacity is low (7,593 tests per million as of April 6), whilst prioritising the testing of healthcare workers and people with at least mild symptoms. Patients are divided into different levels of severity: non-hospitalised cases, those hospitalised without ICU admission or dying and cases admitted in ICU or with a fatal outcome. Patients admitted to ICUs are younger than those hospitalised (median age for ICU is 64, for hospitalised without going to ICU is 68). Nevertheless, the median age of deaths is significantly higher (82) than the recovered (58)⁴⁶. 45% of non-hospitalised cases presented with

⁴² Contribution by Kinga Konya and Sara Ronco.

⁴³ Situación de COVID-19 en España, retrieved from <https://covid19.isciii.es/>, consulted the 16th of April 2020.

⁴⁴ Data on Covid-19 in Spain has been retrieved from *The Informe Nº 12. COVID-19 en España. CNE. SiViES. CNM (ISCIII)*. 20th March 2020 and from official websites www.mscbs.gob.es and www.ecdc.europa.eu

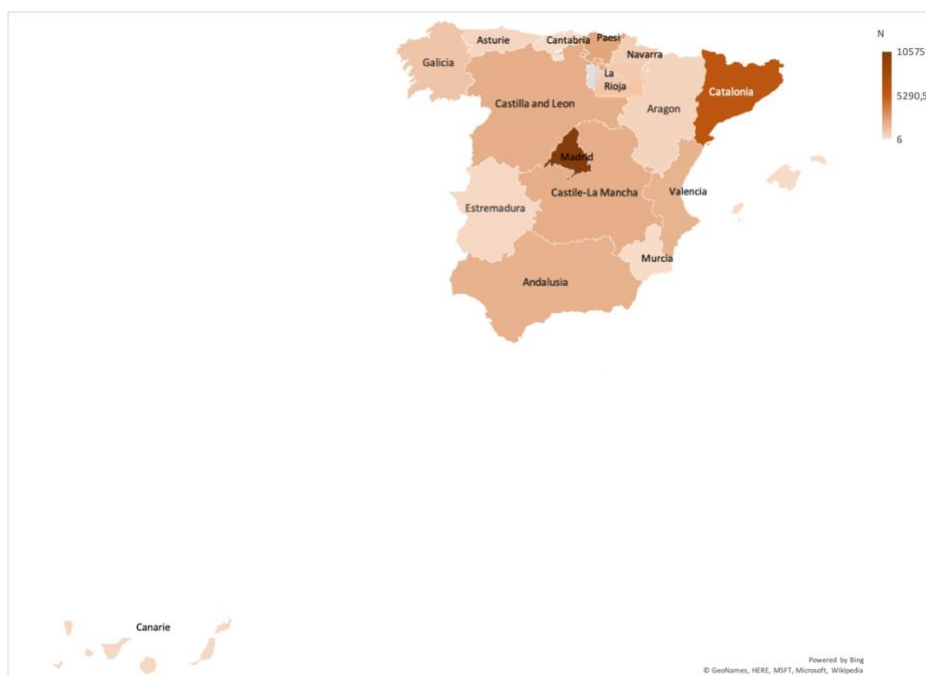
⁴⁵ *The Informe Nº 21. COVID-19 en España. CNE. SiViES. CNM (ISCIII)*, 6th of April 2020.

⁴⁶ Idem.

heart disease as a predisposing factor, compared to 75% in hospitalised cases and 90% amongst cases admitted to ICU or dead. As for April 6, 26% of confirmed cases were healthcare workers.

The percentage of infected people varied also by regions, with the Community of Madrid being the most affected, representing 29% of all cases, followed by Catalonia with 20% of overall confirmed cases (see Tab. 4). Furthermore, the Communities of Madrid and Catalonia account respectively for 39% and 21% of all deaths, 43% and 25% of all recoveries, and 32% and 27% of all new cases detected (April 7th).

Figure 6 - Confirmed cases by region in Spain



Source: Author’s elaboration with data from <https://covid19.isciii.es/>, 03.21.2020

Table 4 - Covid-19 Overview of Most Affected Regions in Spain (07 April 2020)

<i>Region</i>	<i>Total Cases</i>	<i>% Total Cases</i>	<i>Deaths</i>	<i>% Total Deaths</i>	<i>Recovered</i>	<i>% Total Recovered</i>	<i>New cases</i>	<i>% New Cases</i>
Community of Madrid	40,469	29%	5,371	39%	18,410	43%	1,746	32%
Catalonia	28,323	20%	2,908	21%	10,738	25%	1,499	27%

Source: Author’s elaboration with data from www.mscbs.gob.es 07.04.2020

Amongst the epidemiological history of risk on contagion, contact with a probable or a confirmed patient with COVID-19 was observed in 43% of the cases, whilst 28% had contact with a patient with acute respiratory infection. One piece of critical data is that, amongst affected people, 23% were health workers. This is confirmation of the low level of preparedness, mainly in terms of the access to preventive garments to face this pandemic.

The Spanish Healthcare System is relatively developed. Expenditure in healthcare accounts for the 8.9% of the GDP in 2018. Life expectancy at birth can reach 83 years, with a population of >65 age of 18.9%⁴⁷, but less aged than in Italy.

In terms of infrastructure, Spain accounts for 13,000 Primary Care Centres and 466 Hospitals with 112,000 beds; hospital beds per 100,000 inhabitants are 297.28 which is lower than the European average (541.43 hospital beds per 100,000 inhabitants). In terms of medical staff, there are 147,000 medical professionals (36,000 in Primary Care Teams, 82,000 in Hospitals, 3,000 in Emergency and Emergency Services, 26,000 professional training specialists), 182,000 professionals in nursing (30,000 in Primary Care Teams, 146,000 in Hospitals, 3,000 in Emergency and Emergency Services, 2,000 professional training specialists). Other types of healthcare staff account for 317,000 people⁴⁸.

Spain's economy started to recover from the 2008 crisis in recent last years, registering a growth in GDP of 2.4% in 2018⁴⁹, with a slight decrease in inequality (GINI index fell from 34.8 in 2016 to 34.7 in 2017) and also a slight decrease of 1.1% in the poverty gap in 2017⁵⁰. Furthermore, Spain's debt to GDP fell from 97.6% in 2018 to 95.5% in 2019. Nevertheless, Covid-19 emergency measures, brought by the government in March 2020 to flatten the contagion curve will certainly weigh heavily on the future of country's economy.

Spain will face three challenges: i. shortage of liquidity and the increase in public debt needed to sustain enterprises and citizens; ii. shortage of global supply chains and the worsening of the balance of payments; iii. decrease in tourist activity, both international (because of possible further restrictions on travel) and national (because of the general deterioration in the economy).

Tourism is an important strategic sector in Spain, accounting for the 12.3% of GDP and for 12.7% of employment⁵¹. The World Tourism Organisation estimates a global decrease for the EU in tourism of between 1% and 3% in 2020, with a loss of revenue from international tourism of between US\$30,000 million and US\$50,000⁵². For the World Travel & Tourism Council (WTTC) the

⁴⁷ Gobierno de España, <https://www.mscbs.gob.es/estadEstudios/sanidadDatos/home.htm>, Key data from Spain's National Health System, February 2020.

⁴⁸ Last data available (2017-2019) from www.mscbs.gob.es/estadEstudios/portada/docs/DATOS_SNS_A4_022020.pdf

⁴⁹ WB data, consulted 27th of March 2020.

⁵⁰ WB data, consulted 27th of March 2020. Has taken poverty gap at \$5.50 a day (2011 PPP), in 2017 it registered a decrease of 0.4 percentage points from previous years, returning to the registered percentage before the 2008 crisis.

⁵¹ <https://www.mincotur.gob.es/es-es/covid-19/Paginas/covid-19.aspx>

⁵² <https://www.unwto.org/es/turismo-covid-19>

recovery time of a destination affected by a health crisis is at least 19 months, surpassing causes such as terrorism or environmental disasters. Spain had already registered more than a 62% drop in travel reservations by mid-March (immediately after the lockdown)⁵³.

On the supply side, the lack of labour and mobility restrictions have already caused shortages of raw materials, crucial for global value chains, leading to factories closing⁵⁴; on the demand side, the mandatory closure of companies, shops and leisure centres etc. and the restriction of movement of people have caused a sharp drop in domestic consumption, both of local and imported products; the only exception is the food and beverage sector, in which companies registered an increase in sales of 180% in just one week⁵⁵.

Spanish SMEs will be particularly under strain. According to the Bank of Spain's last report on business demography, net growth in the number of active companies stagnated in the wake of the 2008 recession and started a weak recovery from 2014. Spain is the European country with the greatest drop in the number of new company start-ups and the greatest increase in the rate of company closures during the recession after 2008 crisis⁵⁶. Considering the recession that will be caused by the Covid-19 health crisis (the majority of studies expect a significantly deeper recession than the one experienced after 2008)⁵⁷, the consequences for Spain's "business fabric" could be critical.

In March 2020, a Statista's report gave the forecast of a possible worsening of GDP of between Euro 9.5 billion (best case scenario) and Euro 55 billion (worst case scenario)⁵⁸. A lasting lockdown and economic mitigation measures implemented by the government will be crucial in determining the extent of the future socio-economic recovery of the country.

a. National policy measures for the containment of contagion

Following the declaration of the health crisis situation, caused by the COVID-19 as a pandemic of international concern on the 11th of March 2020 and the rapid spread of the virus both nationally and internationally, the Spanish government gradually adopted a number of measures aimed at: protecting citizens' health and security; containing the progression of the disease; reinforcing the public health system; ensuring basic public services; and addressing both the social and economic impact of COVID-19.

⁵³ <https://www.masquenegocio.com/2020/03/18/turismo-espana-19-meses-coronavirus/>

⁵⁴ Idem

⁵⁵ Idem

⁵⁶ Análisis de la Demografía Empresarial en España a Comienzos de 2019, Banco de España 2020.

⁵⁷ See <https://www.weforum.org/agenda/2020/03/coronavirus-survey-of-economists-reveals-consensus-on-a-recession/>

⁵⁸ <https://es.statista.com/estadisticas/1104098/prevision-del-impacto-economico-del-covid-19-en-el-pib-espanol-a-marzo-de-2020/>

On March 14, the President of the Government declared the State of Emergency, noting that previous urgent measures had already been implemented in the days prior to the declaration of the State of Emergency.

Once the pandemic started seriously affecting the national healthcare system and the regions of Spain (mainly Madrid, La Rioja and Catalonia), the very first measure (Royal Decree 6/2020) came into force on March 10 aimed at ensuring a better distribution of medicines and medical products and allowing that absenteeism from workplaces, due to self-isolation to prevent the spread of COVID-19, would be considered exceptional by the Social Security System as a workplace accident.

On March 11, air traffic between Italy and Spain was suspended (no direct flights allowed with the sole exception of state-owned aircraft, cargo flights, humanitarian, emergency and medical flights) originally until March 25, then extended until the end of the State of Emergency.

The declaration of the State of Emergency came at the moment when the number of confirmed cases increased tenfold on the previous week (i.e. 5000+ cases on March 14 compared to 400 confirmed cases one week earlier (on March 7). By Royal Decree 463/2020, the State of Emergency came into force in the whole territory of Spain for a duration of 15 days from the 14th of March⁵⁹. It was officially extended by 15 days by Royal Decree 476/2020 and remained in force until April 12, then further extended to the 26th of April.

Royal Decree 463/2020 sets the overall framework for the whole territory of Spain and also regulates different sectors and activities:

- Limitations to the free movement of people, goods and vehicles: use of public spaces and roads is allowed only in exceptional cases (i.e. purchasing food, pharmaceutical and basic products; movement from home to workplace and vice-versa). Furthermore, local competent authorities are empowered to define the exact percentage of reduction of public transportation services as convenient, in line with the actual mobility needs of their territories).
- Temporary confiscations and imposing obligatory basic needed services on people.
- Suspension of face-to-face education and training activities.
- Suspension of commercial, cultural and recreational activities (not falling under specific categories such as food and beverages; pharmaceutical, personal hygiene, health products, telecommunications and technology, etc.)
- In complementarity and with full compliance with the State-level legislation, Autonomous Communities (regions) can adopt additional measures.

⁵⁹ Update: On March 25, the Congress approved the extension of the State of Emergency until April 11, as requested and announced by the President of the Government on March 22.

Since March 15, a number of consecutive measures have been published. Regarding the health sector, extraordinary measures have been taken: extending the contracts of medical students/residents of certain branches of medicine; recruiting healthcare professionals not having completed their medical studies; reactivating retired healthcare professionals or those having moved to other professional sectors, as well as allowing to turn any public or private spaces, provided that they comply with the minimum necessary criteria, into healthcare centres. It has become mandatory for medical product importers and producers (i.e. masks, gloves, COVID-19 diagnostic kits, glasses, disinfectants, etc.) to provide information on their stocks.

On March 19, two health sector-related measures came out facilitating access to medication for those not covered by the Social Security or private insurance and aimed at reducing the risk of contagion in nursing homes and daily healthcare centres.

Later in March, in view of the need for ensuring a better geographic coverage of healthcare and the possibility of redistributing healthcare professionals throughout Spain, certain accommodation providers (hotels) were allowed to reopen their services exclusively for workers displaced due to the COVID-19 crisis. Furthermore, the State Secretary on Digitalisation and Artificial Intelligence was mandated to urgently develop new digital tools allowing self-evaluation of symptoms by users and providing information on COVID-19, as well as recommendations in terms of follow-up, based on the results of self-evaluation.

From March 17 to April 11, internal land borders were re-established and border controls applied. Only Spanish nationals and residents are now allowed to enter the country. Any illegal border crossing is penalized with return to the country of origin. Moreover, according to the decision of the European Council of March 17, a temporary restriction of non-mandatory travel from third countries to the European Union and Schengen-associated countries entered into force, in order to limit the expansion of COVID-19.

On March 16, the Ministry of Defence was mandated to cooperate with the Ministry of Social Rights and Agenda 2030, especially in terms of protecting homeless people and those living in huts not qualified as households.

On March 29, after an extraordinary meeting of the Cabinet, the Spanish government suspended all non-essential economic activities by Royal Decree-law 10/2020, enforcing stricter confinement measures in terms of the mobility of workers. As of this date, employees performing economic activities under sectors not part of the list of essential services⁶⁰ and not being able to perform

⁶⁰ Those performing economic activities necessary for ensuring supply of basic and essential products (incl. food, beverage, medical and health products), catering services (only food delivery), health protection products and medical equipment, transportation of basic goods and people, maintenance of vehicles transporting goods and people, civil protection services, military material and equipment, healthcare and daily care services, R&D in terms of COVID-19, veterinary services, financial institutions, telecommunication and audiovisual services, protection of victims of domestic violence, legal services linked to COVID-19, specific notaries and registry services, cleaning and maintenance services, humanitarian services, water safety services, meteorological services, postal services, import and distribution

their economic activities from home, were instructed to cease their economic activities until April 9, with the possibility of recovering days of inactivity during the period between the end date of the State of Emergency and the 31st of December 2020. This decision came after observing that limiting the free movement of people was effective in slowing down the spread of the virus. Other measures, such as teleworking, flexible arrangements for companies and other socio-economic measures taken in the past two weeks, are also considered to have been efficient in reducing the negative impact of the COVID-19 health crisis on Spain's economic activity.

In order to mitigate the impact of the crisis on education, **on March 30**, the Ministry of Education and Vocational Training announced measures to support students with limited access to internet, so that they can continue pursuing their studies virtually.

On March 31, the Cabinet approved the distribution of Euro 300 Million to Autonomous Communities, within the overall framework of the Plan of Extraordinary Economic measures aimed at mitigating the impact of COVID-19.

On April 2, in order to ensure the minimum railway service necessary for the transportation of basic goods and products, specific measures were taken to ensure the non-interruption of such services (i.e. distribution of masks for those working in the transportation of goods and people).

On April 3, new measures were taken to increase market supply of hand sanitisers due to the high demand (of health centres and citizens) in the healthcare sector.

On April 5, the Minister of Health assured the distribution of 1 Million rapid tests of COVID-19 to Autonomous Communities in order to increase the daily capacity of diagnostics (which was between 15.000 and 20.000 at that date).

On April 6, a significant effort in improving the monitoring of the contagion was presented. The State Secretary of Digitalisation and Artificial Intelligence, in cooperation with several companies including Telefónica, Ferrovial, Google and Santander, launched the AsistenciaCOVID-19 self-diagnosis platform (<https://asistencia.covid19.gob.es/>) with the intention of providing official, reliable information and advice to citizens showing symptoms of COVID-19.

b. National policy measures for the economic impacts mitigation

In order to mitigate the socio-economic impact of COVID-19, urgent measures were taken to ensure that, once the emergency situation is under control, the most affected economic players are able to continue their activities. However, COVID-19 will inevitably have a negative effect on the Spanish economy, with a grim projection of uncertainty and that further recovery measures will have to be taken.

On March 10th, specific economic measures were adopted to allow both the restructuring and resolution of credit institutions, as well as setting protection measures for the indebted and regulating the supervision and solvency of credit institutions, amongst other economic measures taken to protect public health.

of health products and medical equipment, delivery of goods and products ordered online, energy supply and operators of other essential services.

The Royal Decree 7/2020 of March 12 adopted a number of measures in order to address the challenges the healthcare system, the tourism sector, private sector (MSMEs) and freelance workers were already facing. In this regard, measures taken aimed at: i. reinforcing the public healthcare system, ii. supporting workers and vulnerable families affected by the emergency situation, iii. guaranteeing liquidity of companies active in the tourism sector and iv. supporting funding of MSMEs and freelance workers.

The Royal Decree-law 8/2020 March 17, (further updated on April 1 to enhance the extent of funding) established 5 main groups of measures including:

- i. Measures to support workers, families and vulnerable groups of people (Euro 300 Million to establish an Extraordinary Social Fund in order to finance basic social services; a specific funding programme set up to facilitate the procurement of material and equipment for SMEs via specific subventions and loans; Euro 200 million to be made available through the Official Credit Institute for financing the digitalisation of enterprises; a new form of subvention for freelance workers);
- ii. Flexibility measures to prevent mass dismissals of employees (measures to loosen temporary employment adjustments in order to avoid loss of jobs), allowing suspended employees to apply for unemployment allowance; the prioritisation of the temporary suspension of contracts and reduction of working hours; reduction of costs and obligations towards social security for companies);
- iii. Liquidity measures for MSMEs and freelance workers to maintain their economic activities (Euro 100.000 million of guarantees for enterprises and freelance workers covering the renewal of loans or the request for new loans; net indebtedness capacity of the Official Credit Institute was increased up to Euro 10.000 million in order to immediately facilitate additional liquidity for enterprises; customs procedures were streamlined)
- iv. Measures providing financial resources on treatments, vaccines and medicines related to COVID-19;
- v. Additional measures (limiting transactions by investors residing outside the European Union or countries of the European Free Trade Association).

Additional measures brought into force in order to alleviate the impact of COVID-19 on the labour market: the suspension of Temporary Employment Adjustment Schemes (ERTE) for both public and private health care and daily care providers; the exact procedure for companies to suspend contracts and apply for unemployment benefits for employees having been dismissed due to COVID-19 and measures to detect fraud or incorrect information with regard to applications for unemployment benefits.

3. COVID-19 in the South and East Mediterranean: Diagnosis and Policy Responses

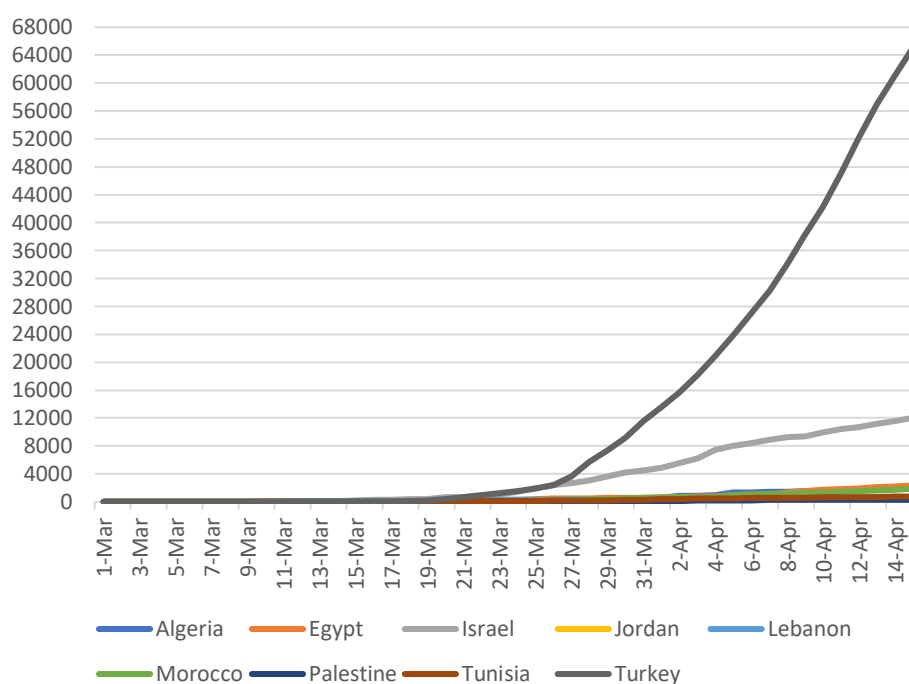
This section provides the regional diagnosis of COVID-19 and the level of preparedness of national healthcare systems to manage the health crisis in the South and East Mediterranean. It delves into the following countries: Algeria, Egypt, Jordan, Lebanon, Morocco, Palestine and Tunisia were all surveyed during the global pandemic. It describes the process of the COVID-19 contagion and its characteristics and examines the national policy measures for containment of the contagion and mitigation of its socio-economic consequences.

3.1 REGIONAL DIAGNOSIS

As of 15th of April, the most affected country in this region was Turkey, with 69,392 registered cases, followed by Israel with 12,501 total cases. Covid-19 started spreading in the region by mid-February, with the first case observed in Egypt on the 13th of February.

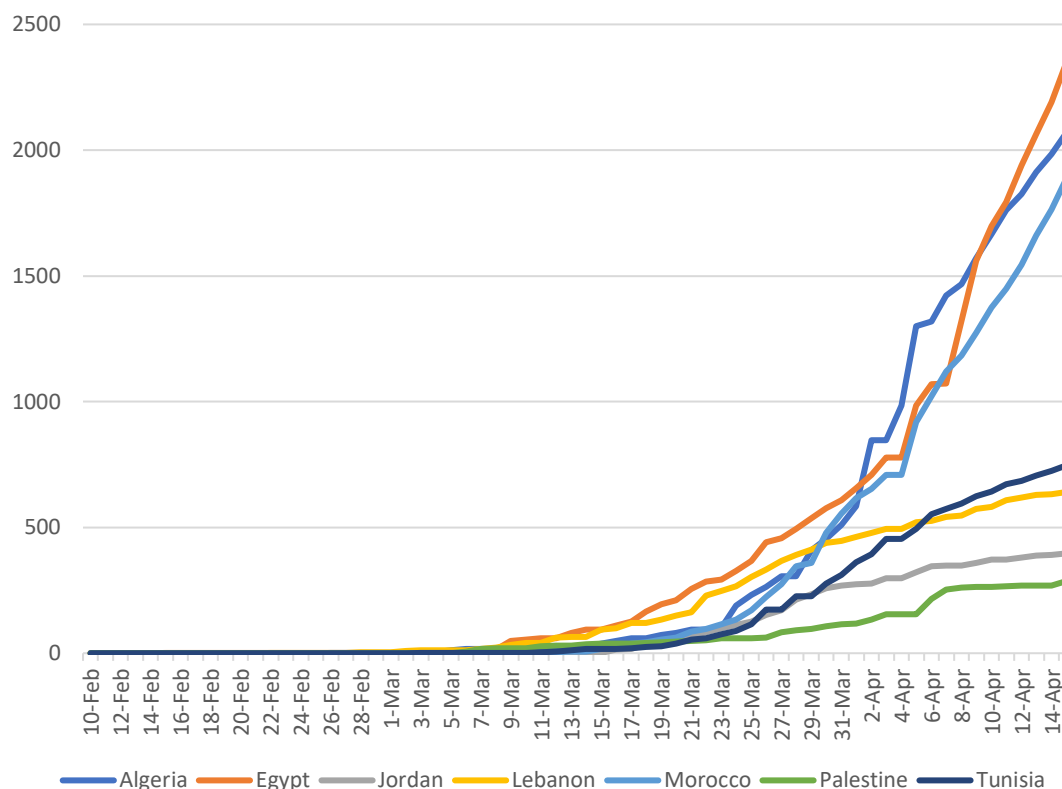
Epidemiologic curves for the region show a steep increase in Covid-19 contagion in Turkey and Israel, whilst cases in the other countries seem to have increased less sharply. Nevertheless, it is important to stress that registered cases could be underestimated because of the lack of tests and the low reporting capacity of governments.

Figure 7 - Southern Mediterranean Countries - Cumulative Curves of Covid-19 cases



Source: Author’s elaboration with data retrieved from <https://www.ecdc.europa.eu/> (15th of April 2020)

Figure 8 - Southern Mediterranean Countries Cumulative Curves



Source: Author’s elaboration with data retrieved from <https://www.ecdc.europa.eu/> (15th of April 2020)

In Turkey, during the last week of March, COVID-19 cases increased by 7,981, whilst in Israel the same weekly variation increased by 3,176 cases. The other countries presented weekly increases, except for Palestine. The weekly variation for the first week of April showed a rapid increase of registered cases in all countries. Jordan registered a lower number of cases in the second and third periods observed, suggesting a possible decrease in the speed of contagion. The same was case for Palestine and Tunisia as of the second week of April.

Table 5 - Southern Mediterranean Countries 23 March-13 April weekly cases, variations, deaths and recoveries

Country	Cases 1. (23-March)	Cases 2. (30-March)	Cases 3. (6-Apr)	Cases 4. (13-Apr)	Var. I (23-Mar-30-mar)	Var. II (30-Mar - 6-Apr)	Var. III (6-13 Apr)	1st case	Recovered (13-Apr)	Deaths (13-Apr)
Algeria	102	454	1,320	1,914	+ 352	+ 866	+ 594	Feb-24	90	173
Egypt	294	576	1,070	2,065	+ 282	+ 494	+ 995	Feb-13	259	85
Israel	1071	4,247	8,430	11,235	+ 3,176	+ 4,183	+ 2,805	Feb-20	585	57
Jordan	99	259	345	389	+ 160	+ 86	+ 44	Mar-01	126	6
Lebanon	248	438	527	632	+ 190	+ 89	+ 105	Feb-20	60	19

Morocco	115	479	1,021	1,746	+ 364	+ 542	+ 725	Mar-01	81	80
Palestine	59	106	217	290	+ 47	+ 111	+ 73	Mar-04	25	1
Tunisia	75	278	553	707	+ 203	+ 275	+ 154	Mar-01	5	22
Turkey	1,236	9,217	27,069	56,956	+ 7,981	+ 17,852	+ 29,887	Mar-09	1,325	649

Source: Author's elaboration with data retrieved from <https://www.ecdc.europa.eu/> and <https://www.worldometers.info/coronavirus/#countries> (13th of April 2020)

Turkey is one of the latest countries in the region to be hit by the contagion (March 9), albeit the one that is most affected. As Tab.6 shows, Turkey reached 56,956 cases in only 34 days, with 2.10% of deaths and 6.05% of recoveries. The highest death rate was registered by Algeria (15.31%), whilst Jordan showed the highest rate of recovered cases (51.67%), followed by Algeria (30.88%) and Egypt (28.52). The latter was the first country to be hit by the contagion, but the number of cases registered in 59 days was relatively low (2,065), with a 7.70% case-fatality rate. Palestine registered 290 cases in 39 days and 20% of them have already recovered, with only a 0.69% death rate. As of 15th of April, Lebanon was the only country in the region with a death rate higher than the rate of recoveries.

However, these numbers must be seen in the context of the overall testing capacity of countries in this region, which is very low. Israel performed the highest number of tests in the region (13,557 tests per million), whilst Algeria was the lowest testing country (77 tests per million).

Table 6 - Southern Mediterranean Countries Covid-19 situation (13 April 2020)

Country	Cases (Confirmed)	Recovered (% of confirmed)	Deaths (% of confirmed)	Still Positive (% of confirmed)	Test per million	Days (from the 1st case)
Algeria	1,914	30.88	15.31	53.81	77	48
Egypt	2,065	28.52	7.70	63.78	244	59
Israel	11,235	15.03	0.98	83.99	13,557	52
Jordan	389	51.67	1.80	46.53	2,009	42
Lebanon	632	1.27	3.16	95.57	2,257	52
Morocco	1,746	11.23	6.87	81.90	243	42
Palestine	290	20.00	0.69	79.31	3,397	39
Tunisia	707	6.08	4.38	89.53	951	42
Turkey	56,956	6.05	2.10	91.85	4,459	34

Source: Author's elaboration with data retrieved from <https://www.ecdc.europa.eu/> and <https://www.worldometers.info/coronavirus/#countries> (13th of April 2020)

The rapid speed of the contagion and the generally long time needed for recovery can put the healthcare systems in these countries under undue pressure. In the South and East Mediterranean country healthcare systems are evidently weaker than in Europe. Health expenditure accounts for between 4% and 7.7% of the GDP in the available years (Tab.7). Even if both African and Eastern Mediterranean countries seem to follow the general slowly declining trend in out-of-pocket spending, these countries still present a generally high out-of-pocket expenditure (Tab.7). In

particular, Morocco relied on out-of-pocket expenditure for 48.6% of current healthcare expenditure and in Egypt it was 61.9%. Furthermore, the economic capacity of the countries varies a lot. Countries such as Israel or Algeria (respectively classified as high income economies and upper-middle-income economies) could be better equipped to face the pandemic, as compared to countries such as Tunisia or Morocco (lower-middle income countries). With the only exception of Israel, the availability of hospital beds and healthcare staff is very low. If Covid-19 continues spreading in the region with the same intensity as in Europe, healthcare systems are likely to collapse.

Table 7 - Southern-Eastern Mediterranean Countries Healthcare Systems Overview

Country	Current health expenditure (% of GDP) (2016)	Out-of-pocket expenditure (% of current expenditure) (2016)	Hospital beds (per 1,000 people) (2016)	Nurses and midwives (per 1,000 people) (2011-15)	Physicians (per 1,000 people) (2011-15)
Algeria	6.6	30.9	1.9	2.2	1.8
Egypt	4.6	61.9	1.6	1.4	0.8
Israel	7.3	23.2	3.1	5.2	3.2
Jordan	8.9	27.9	1.4	3.4	2.3
Lebanon	8,00	32.2	2.9	2.6	0.1
Libya	9.6	36.6	3.7	6.7	2.2
Morocco	5.8	48.6	1.1	1.1	0.6
Palestine	-	-	1.2	-	0.8
Tunisia	7.00	39.9	2.3	2.6	1.3
Turkey	4.3	16.5	2.7	2.6	1.8

Source: Author's elaboration with data retrieved from World Bank Data
<https://data.worldbank.org/> (6th of April 2020)

All countries have already started implementing measures both for the containment of the contagion (from travel restrictions to restrictions on gatherings) and for the mitigation of socio-economic impacts. These measures will be examined in detail in the next sessions.

This section provides the regional diagnosis of COVID-19 and the level of preparedness of national healthcare systems to manage the global pandemic in Sub-Saharan Africa. It delves into Ghana which was surveyed during the global pandemic. It describes the process of COVID-19 contagion and its characteristics and examines the national policy measures for containment of the contagion and mitigation of its socio-economic consequences.

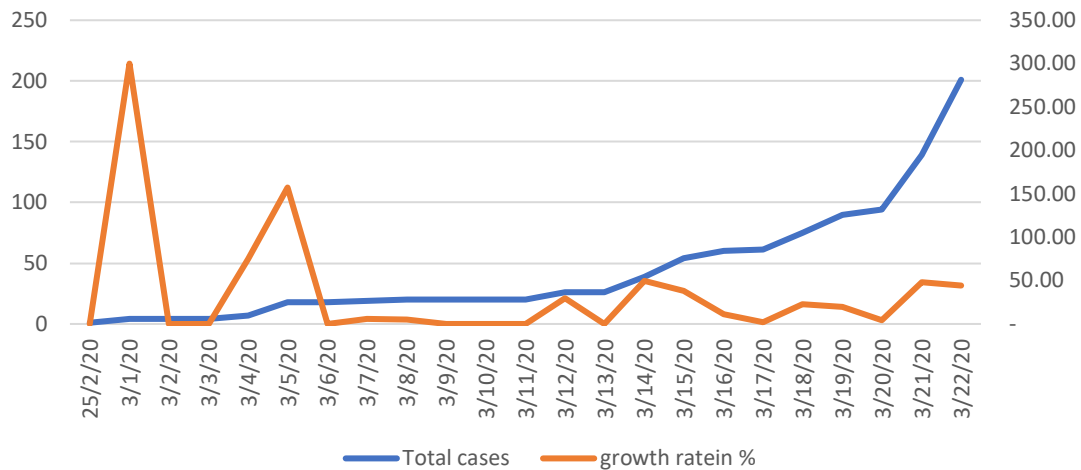
3.2 ALGERIA⁶¹

COVID-19 spread to Algeria when the first confirmed case was declared on February 25, 2020. Figure 9 shows the daily evolution of the official declared total cases and their growth rate. Even if the situation is at its beginning, if we compare this tendency to other countries, the evolution of

⁶¹ Contribution from Yacine Belarbi.

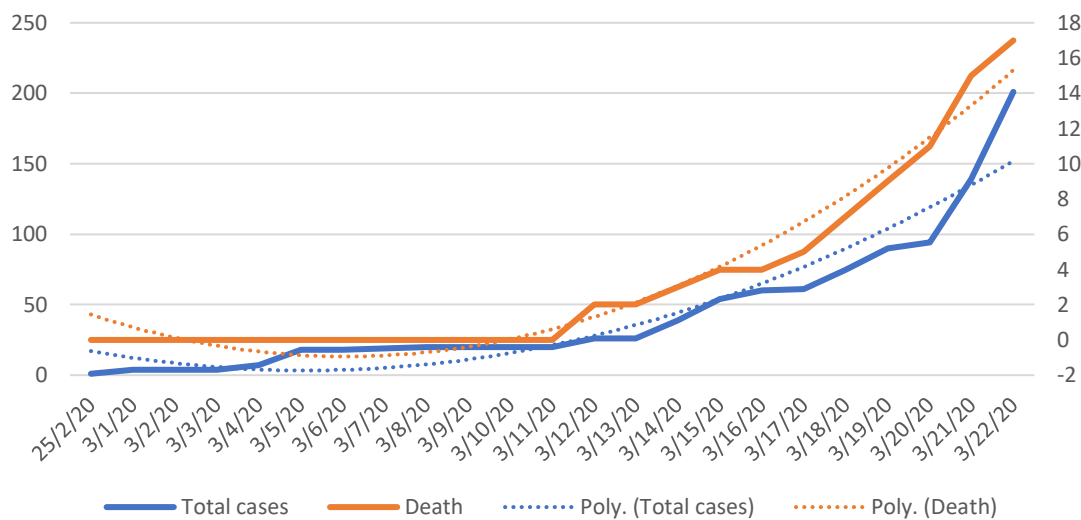
the number of cases seems to steeply increase, whilst the growth rate curve, after two episodes of increases, seems to remain almost flat. On March 23 230 cases were registered.

Figure 9 - Number of COVID-19 cases and growth rate in Algeria



Source: Algerian Health Ministry and worldometers.inf

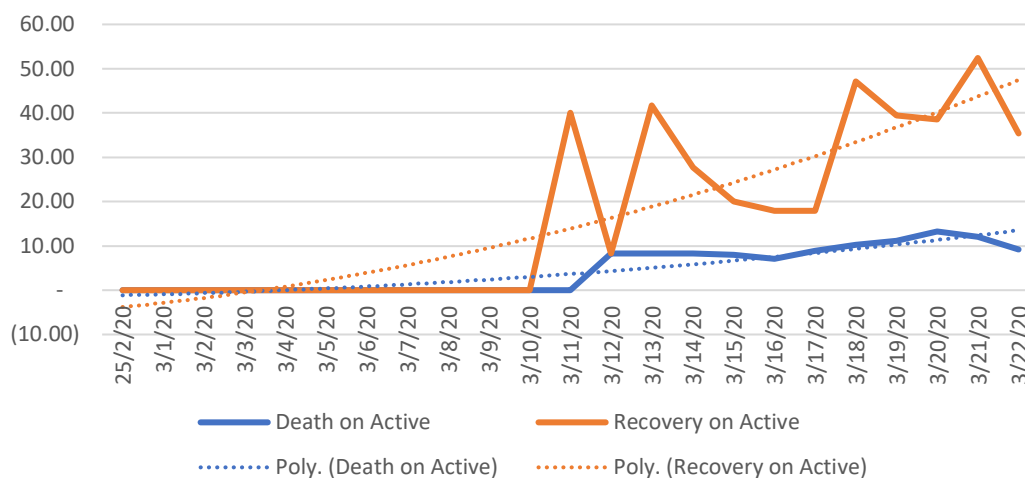
Figure 10 - Number of COVID-19 cases and deaths in Algeria



Source: Algerian Health Ministry and worldometers.info

Figure 10 shows the evolution of deaths between February 25 and March 22. The increase of the number of deaths was evident from the first week of March.

Figure 11 - Number of COVID-19 cases, deaths and recoveries in Algeria



Source: Algerian Health Ministry and worldometers.info

Figure 11 presents the tendency of the rate of total deaths per the total active cases and the total number of recoveries amongst the total of active cases. Even if the death rate is increasing, it increases at a significantly slower pace than the rate of recoveries.

The Algerian health system is mainly based on the public sector. It is managed by the government nationally and regionally. In 2015, it accounted for 15 (CHU and EHU) or university health institutions with a capacity of 15,000 beds, and for another 274 local health institutions with 51,802 beds.

In Algeria, the contagion phenomenon is in its first phase. The incubation time and the public policy responses will be determining factors for the evolution of the contagion in the upcoming weeks.

a. National policy measures for the containment of contagion

Since the detection of the first COVID-19 case in Algeria, the situation has developed rapidly. Since then, several measures have been taken to reduce the propagation of the infection. In a national radio speech on March 22, the Minister of Health confirmed that Algeria had entered into the “stage three” of spread of the virus.

The measures taken to control or to stabilise the situation were timid at first, before moving to maximum speed without declaring the total containment of the population. At the first stage of the COVID-19 spread, “light” measures were implemented to control the contagion, which were enforced at a later stage.

On March 23, a partial containment in the capital, Algiers, and a neighbouring city were declared. Since February 3, further measures have been implemented. The first was the suspension of

flights. The first restriction was for flights from China, which was then extended to flights from Milan (March 9) and all other flights with Italy (March 11). On March 12, Algeria and Morocco suspended their air routes. The restrictions on flights continued, including with Spain (March 13), France (March 15) and all of Europe (March 16) . Furthermore, shipping routes with Europe were also suspended.

Specific measures have been implemented since the outbreak started:

1. "Rigorous and systematic" control of Algerian airports was established from February 17, 2020 in order to guard against a possible spread of the Coronavirus epidemic in the country. On March 22, further strengthening of health control was implemented at land, sea and air border centres.
2. Establishment of a toll-free number 3030 to allow citizens to ask information about the disease and also serving as a way to control suspected cases.
3. Algeria banned exports of protective masks due to the high demand for these materials, particularly in hospitals, as well as for the safeguard of the strategic national reserve of medical products.
4. Cancellation of sporting, cultural and economic events.
5. Strengthening of the COVID-19 screening system to minimise the spread of the disease.
6. Closure of universities and schools.
7. Closure of party rooms, hammams, discos and shopping centres (March 15).
8. Court activity reduced to a minimum (March 16).

Further measures have been taken since March 22:

1. The suspension of all types of transportation, with the only exclusion being staff transport activity (to be paid by employers).
2. Public administrations at central level, as well as for local and regional authorities, must provide exceptional paid leave (at least 50%) for all the employees, for which the physical presence in the workplace is not considered to be essential for guaranteeing the continuity of services (with the exception of personnel from the health, national security, civil protection, customs, prison administration, national communications, quality control and fraud prevention sectors, the veterinary and phytosanitary authority, the hygiene and cleaning services and those assigned to surveillance and guarding missions. However, the competent authorities responsible for these staff may authorise the exceptional leave of administrative staff and any staff whose presence is not considered essential).
3. Public institutions and administrations must take all measures encouraging teleworking.
4. Local governors are authorised to take any measure under the scope of preventing and combatting the spread of COVID-19. They can oblige health personnel and any person or activity needed, to work for COVID-19 prevention activities: any person concerned with regard to their function or professional competence, any hotel infrastructure or any other public or private infrastructure, any means of transport for people necessary, public or private.
5. During the period indicated, all business entertainment and restaurants will remain closed (except for those ensuring home delivery).

6. Staff from the economic and financial sector - public or private - are not affected. However, managers of companies and organisations in this sector are invited to take measures they deem appropriate in order to reduce, as much as possible, the mobility of their staff, taking into account the requirements linked to the nature of their activities, without affecting the production and the services necessary for the satisfaction of the essential needs of citizens and the supply of the national economy.
7. The measures mentioned, which are applicable to the whole national territory for a period of fourteen (14) days, could be, if necessary, renewed in the same forms, depending on the evolution of the country's health situation.

On March 22 additional measures were taken during the Council of Ministers meeting:

1. To identify hospitals that can transfer their beds to intensive care units if necessary. Specialised services for suspected and confirmed cases and materials necessary for the care of patients have been set up; to increase screening and diagnostic capacities, through the use of the Pasteur Institute, with the help of two laboratories in Oran (west) and Constantine (east), currently being fitted out.
2. In addition to the measures taken to equip places for sanitary confinement in hotels, tourist complexes, economic spaces and others, the measures also outline procedures to deter speculators and prevent shortages.

The latest measures, taken at the High Security Council meeting on March 23 were devoted to examining and monitoring the development of the Coronavirus pandemic in the country. It was decided to close all cafes, restaurants and shops, with the exception of food stores (bakeries, dairies, grocery stores, fruit and vegetable stalls); those who violated these measures would have their licenses withdrawn and would be "blacklisted" without the possibility of having any operating licenses issued in the future.

b. National policy measures for the economic impacts mitigation

No clear specific economic measures have been taken so far. Recently, the government announced that the economic cost of reducing the number of workers to 50 % and the closing of some private activities could be taken in hand by the government. Regarding this last announcement, besides the public sector and the administration, we do not know how these decisions will be taken over by the government.

3.3 EGYPT⁶²

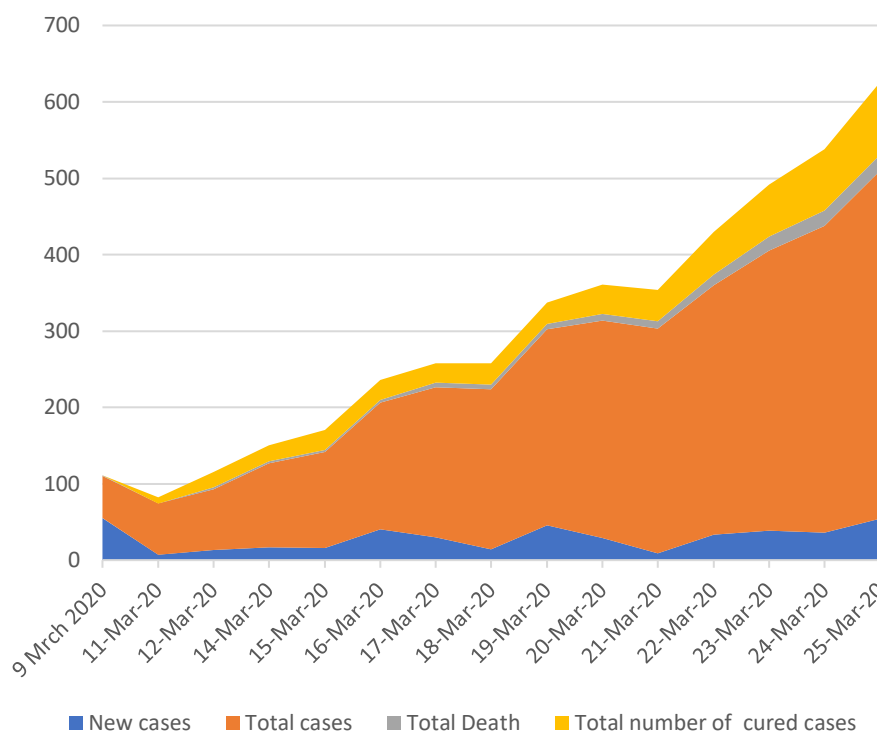
According to the WHO, the total number of confirmed cases in Egypt until March 24th, 2020 was 402 with 20 deaths. The Egyptian Ministry of Health declared that 80 cases had been cured of the coronavirus, with their tests reported negative. For geographical distribution, it was found that in Daqahlia, Damietta and Menya, a large number of individuals had been in contact with positive cases (State Information Service, 2020). The first infection of COVID-19 in Egypt was

⁶² Contribution from Racha Ramadan and Chahir Zaki.

declared in mid-February relating to 45 individuals on board a Nile cruise; those infected and those who died included Egyptians and non-Egyptians.

Figure 12 shows the daily infections since the 9th of March 2020. The total number of infected cases reached 456 on the 25th of March, with 21 deaths. However, the number of cured cases with negative COVID-19 tests and who had left the hospitals reached 95.

Figure 12 - Daily Infections: Total cases - Total deaths and total cured cases in Egypt



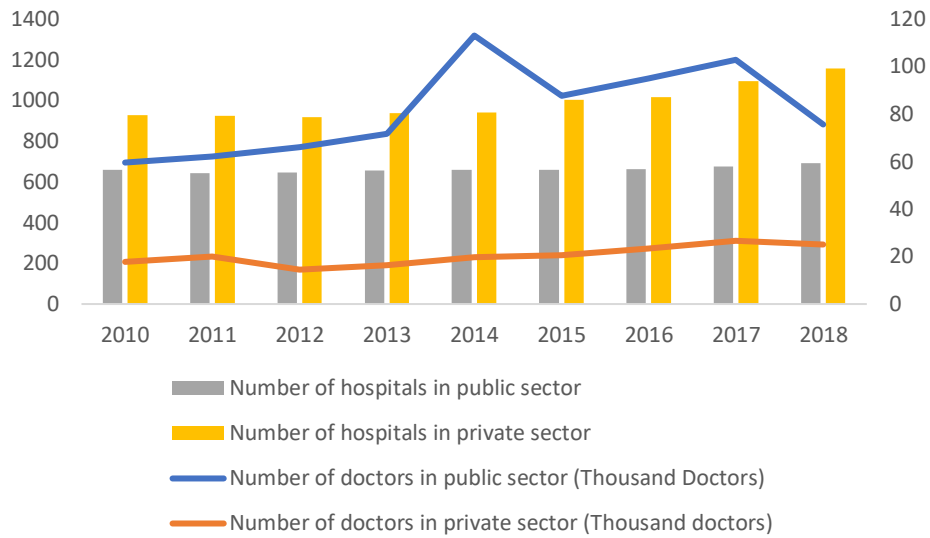
Source: Egyptian Ministry of Health and Population

The spread of COVID-19 represents a public health threat and a burden on the health system in Egypt. Government Health Spending (GHS) in Egypt represented only 1.7% of GDP in 2017 (WHO, 2020), with a stagnation in the number of hospitals and a decreasing number of doctors in the public sector (Figure 13). The number of physicians (per 1,000 people) in Egypt is the lowest compared to other countries of the region where data is available (Figure 14). Whilst for hospital capacities, Figure 15 shows that the number of hospital beds (per 1,000 people) is amongst the lowest in the region at 1.60, compared to 1.90 in Jordan and 2.20 in Tunisia.

Additionally, since 2000, the health sector in Egypt has been characterised by a decrease in public spending, with an increase in out-of-pocket spending (Figure 16). This increases the vulnerability of households to any shocks, such as the new coronavirus crisis, especially with 32.5 percent of the

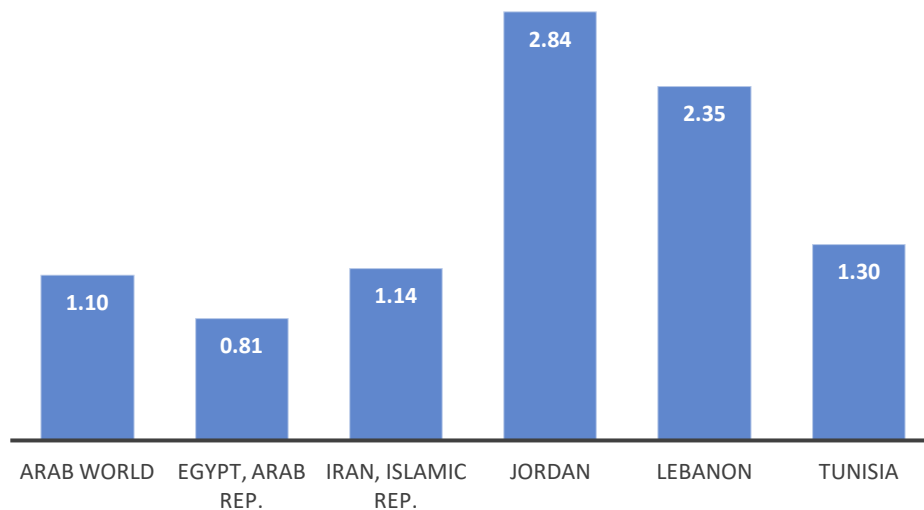
population living below the poverty line (CAPMAS, 2020) and private informal employment accounting for 39 percent of total employment in 2018 (Assaad et al, 2019).

Figure 13 - Number of Hospitals and Doctors in the Public and Private Sector in Egypt



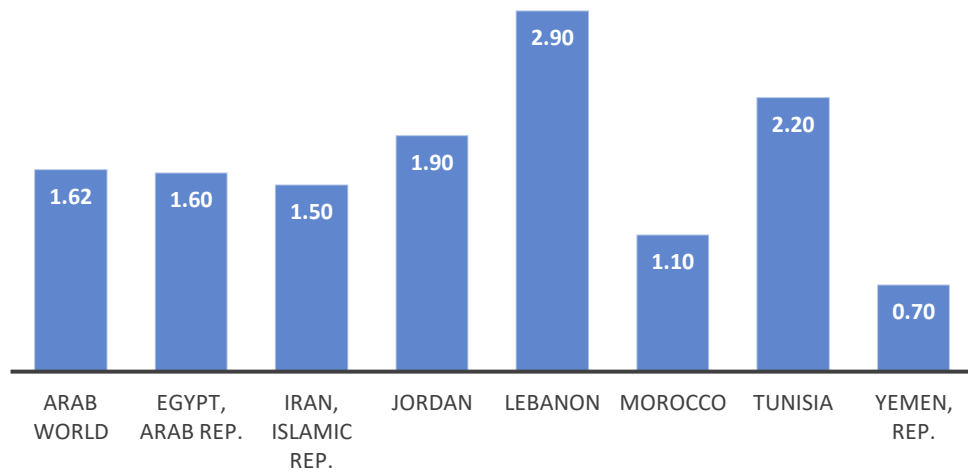
Source: CAPMAS

Figure 14 - Physicians (per 1,000 people) in 2014



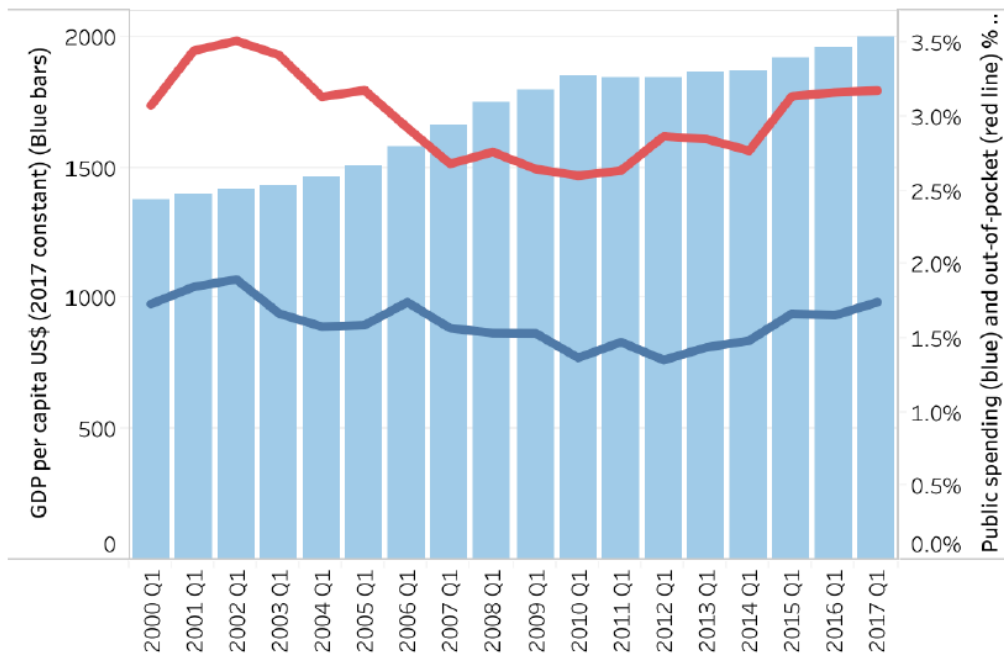
Source: World Development Indicators

Figure 15 - Hospital Beds (per 1,000 people) in 2014



Source: World Development Indicators

Figure 16 - Public Spending Health and Out-of-Pocket as % of GDP in Egypt



Source: World Health Organisation- Egypt Health Expenditure Profile

a. National policy measures for the containment of contagion

In general, the government opted for a quasi-confinement policy to curb the negative effects of COVID-19 in mid-March. Hence, museums, archaeological sites and places of worship were closed for at least two weeks. Shopping malls, sporting clubs, cafes and nightclubs were closed from 7pm to 6am daily until the end of the March 2020. The Army also deployed troops from its chemical warfare units to deep clean parts of the capital including metro stations, governmental and non-governmental institutions. Yet, on the 24th of March 2020, the Government announced a curfew from 7pm to 6am until mid-April. Along with these measures, several macroeconomic and sectoral policies have been proposed as follows.

b. National policy measures for economic impact mitigation

Macroeconomic Policies:

- *Monetary Policy:* The Central Bank of Egypt lowered interest rates by 3% to boost demand. In addition, it raised the ceiling for withdrawals from Automatic Teller Machines (ATMs) and electronic transfers, to increase the flow of funds through the whole banking system. The Central Bank also increased the credit limits of local banks with foreign banks to maintain the imports of strategic goods and local investment.
- *Fiscal Policy:* The Ministry of Planning announced a stimulus package of EGP 100 billion (USD 6.36 billion) to support domestic industries and vulnerable sectors. In the same vein, the Ministry of Finance decided to postpone payments of property tax on factories or tourism properties for 3 months and to lower tax on dividend distribution by listed companies and stamp duty on the stock market. Moreover, the Tax Authority extended the deadline for individual taxpayers to file returns to 9th of April from 31st of March. It also lifted fees on online submissions, in a bid to help companies and individuals to electronically submit their returns.
- *Financial Sector:* The Central Bank decided to postpone loan payments for 6 months with no penalties charged, to increase credit limits in order to finance companies' working capital. It also asked commercial banks to develop immediate support plans for companies severely affected by COVID-19. Third, it decided to adopt more flexible judicial action and black-listing procedures against defaulting retail business clients. Finally, EGP 20 billion was allocated from the Central Bank to support the Egyptian Stock Exchange.
- *Social Policies:* The Ministry of Social Solidarity will allocate more funds to support 60,000 families through its Takaful and Karam programme⁶³. Indeed, transfers to women in rural areas will increase from EGP 350 to EGP 900 per month, with special focus on families affected by the COVID-19 outbreak. Second, the Ministry decided to include women over 65 years of age under the umbrella of the social security scheme. Third, the number of beneficiaries from simple interest loans will increase, in order to encourage them to start micro projects and improve their standard of living in these unprecedented circumstances. At the housing level, an amount of EGP 50 billion

⁶³ The Takaful and Karama conditional and unconditional cash transfer programme is amongst Egypt's largest investments in human capital development. The name of the social safety net programme translates as "Solidarity and Dignity" and was launched in 2015 with the support of a US\$400 million World Bank programme.

was allocated for real estate financing through banks for middle-income. Finally, the Ministry of Manpower decided to provide an exceptional allowance of EGP 500 for irregular workers registered in the databases of the manpower directorates in each governorate. Yet, it is important to note that most of those who work in the informal sector are not registered in such databases.

Sectoral Policies:

- *Industrial sector:* The government decided to reduce the price of natural gas by 4.5 USD and that of electricity by EGP 0.1 for different industries. In addition, the government agreed to provide EGP 1 billion for exporters during March and April 2020 to pay part of their dues.
- *Tourism sector:* The Cabinet decided to launch the tourism financing initiative, to guarantee the continued operation of hotels and to finance their current expenses by an amount of EGP 50 billion.
- *Health sector:* Despite the limited capacity of the health sector in Egypt (in terms of facilities, infrastructure and coverage), the Supreme Council of University Hospitals has ordered its facilities to cut non-emergency admission by 70% to free beds for potential COVID-19 patients. In addition, University hospitals prepared some areas for quarantine. The Ministry of Health ordered these hospitals to ensure they have six-month supplies of key equipment, meds and disposables and created a hotline especially dedicated to COVID-19. Additionally, the Ministry of Finance allocated an amount of EGP 188 million to the Ministry of Health, out of the hundred billion approved by the President to deal with COVID-19.
- *Education sector:* The Ministry of Education decided that final exams for primary and preparatory school students in the State education system will be cancelled. As per Higher Education exams, it was decided that final exams will be postponed to after 30th of May. Moreover, schools, public and private universities moved to e-learning (recorded lectures, live lectures on different platforms) to guarantee the smoothness of the semester.

The outbreak of COVID-19 in Egypt represents a shock to the labour market. Although this shock will negatively affect the employment and income of employees in all sectors, some groups will be more affected than others. Tourism and all related activities will not be able to pursue their activities given the measures to close borders. Indeed, Egypt suspended all flights from 09th to 15th of March, in an attempt to contain the spread of the new coronavirus. This will result in the contraction of the tourism sector in Egypt, although no official numbers have yet been declared. On the other hand, remittances from Egyptians living abroad, which are another major source of foreign currency in Egypt, are expected to fall dramatically, with most Gulf countries cutting their flights from Egypt and requiring coronavirus-free certificates from Egyptian employees returning from Egypt.

Women (working mainly in the agricultural and service sectors), informal and seasonal workers as well as the self-employed are the most vulnerable to the spread of the new coronavirus. They won't be able to pursue their activities because of the quarantine and limited mobility measures. These vulnerable groups have to be protected from the disease and from the loss of income, especially as they are not usually covered by social protection measures, since most of the existing social programmes mainly cover formally employed individuals. Informal workers depend on

informal social programmes, such as religious-based charity groups and NGOs, in addition to the support of family and friends. However, to put this in context, this informal support system is no longer reliable.

Therefore, the government has to intervene, first by enforcing protective measures in workplaces and in the different communities, through public support and investment, to protect informal workers from infection. Second, the government will protect them from income loss by expanding actual social programmes (such as subsidies; Takaful and Karama) to include all individuals affected by the present crisis and by implementing new social schemes as public employment programmes and/or ad hoc payments for workers (ILO Note, 2020). On a longer-term basis, the government has to reconsider its approach towards the informal sector. Indeed, the latter is the one most threatened by the current crisis and envisaging new tools to formalise this sector is of utmost importance. Third, revisiting priorities to increase spending on health should be one of the most important changes in public spending, in both the short and medium term. Finally, the government has to intensify its awareness campaigns in rural and poor areas, to educate individuals and to boost public awareness about COVID-19, the importance of confinement, cleanliness measures, etc. Indeed, until now, given the high level of illiteracy in poor and rural areas, a lot of people are not really aware of the threat posed by this pandemic.

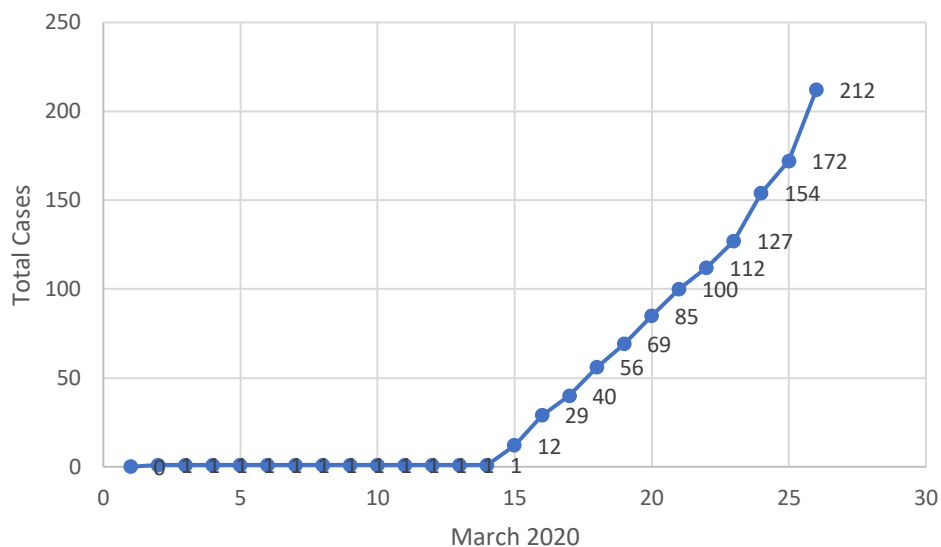
3.4 JORDAN⁶⁴

The first case of COVID-19 was confirmed by the authorities in Jordan on 02 March, 2020. The patient remained in hospital quarantine and was declared recovered on 13 March 2020. On March 15th, the Health Ministry confirmed 13 cases. Since then, the total number of cases has been increasing and has now reached 212 confirmed cases, according to the latest estimate (as of 26 March 2020). So far, there have been no fatalities and one recovery (the first patient).

To keep citizens informed and to avoid the spread of fake news, the Ministry of Health is operating an official Coronavirus information page (<https://corona.moh.gov.jo/ar>). The National Centre for Security and Crisis Management is the body responsible for coordinating actions on COVID-19 related matters. The evolution in the number of confirmed cases in Jordan is represented by the graph below:

⁶⁴ Contribution from Nooh Alshyab, Serena Sandri and Mais Shaban.

Figure 17 - Confirmed COVID-19 cases in Jordan (as of 26.03.2020)



Source: <https://tradingeconomics.com/>

a. National policy measures for the containment of contagion

To limit the spread of the disease, the Jordanian government was prompt in activating information campaigns, travel bans, and other containment measures.

Nationwide campaigns on prevention and hygiene were run and disinfectants were placed in all public institutions.

Travel bans for travellers from China, Iran, and South Korea were issued on February 23rd and successively extended to Italy (February 25th).

All in and outbound flights were then suspended starting from 17th March. All Jordanian citizens entering the country as of 16th March had to be quarantined in hotels rented by the government in Amman and at the Dead Sea. Official figures refer to a total of 4,892 people quarantined in 35 hotels. On the same day, all crossing points were similarly closed and quarantine field hospitals were set up at border crossings for Jordanians returning to the country.

The **confinement measures** that have been adopted began with the closure of all schools and universities for two weeks starting 15th March (activating remote learning via electronic learning platforms), together with all tourist sites, cafes and restaurants. In addition, the government prohibited all public, social and cultural events such as conferences, weddings, cinemas, theatres, and other occasions of mass gatherings. The prohibition also included religious functions, so that even prayers in mosques and churches were banned. This initially encountered a strong reaction from the population, which later subsided. Informational interventions by the authorities, however, helped ensure understanding and compliance with this measure. As a result, Friday the

20th March 2020 became the first Friday without communal Muslim prayer in the whole history of the country.

On March 16th, all public and private sector activities were suspended, with the exception of health facilities and sectors of primary importance. On March 17th, a Royal Decree imposed the Defence Law, which was enforced the next day. The Prime Minister highlighted that the government would impose the law within the most limited scope possible. Measures enforced by the law included:

- Halt of work in all public institutions, authorities, and private sector activities - with the exception of the health sector and other vital sectors (including telecommunication). Banks, financial institutions and the Amman Stock Exchange were included in the closure.
- Closure of all shopping centres, with the exception of food markets and pharmacies.
- Citizens may not leave home except in extreme circumstances. Prohibition of gatherings of more than ten people.
- Prohibition of all domestic movement between governorates.
- Suspension of public transport.
- Halt of newspaper printing, in order to reduce the spread of infections.
- Restricting the work of the health sector to emergencies and urgent operations.

On March 20th, the Prime Minister declared the curfew to protect the health of citizens and to decrease the likelihood of the spread of the disease. The government announced on March 23rd that, starting by the 24th, municipalities would start a distribution scheme to provide citizens with basic supplies, such as bread, water, medicine, infant formulas, gas, diesel and kerosene. Distribution began with bread and resulted in gatherings, queuing up and unmanned areas. Due to the apparent difficulties in organising a centralised doorstep delivery service, on March 25th small local grocery shops, bakeries and pharmacies were allowed to open to the public between 10.00 am and 6.00 pm. A night curfew has since then been in vigorous force and the Public Security Directorate announced that violators would be punished with arrest. Furthermore, the government has launched an application (mouneh.jo) for doorstep deliveries from private shops.

The **health system**⁶⁵ in Jordan consists of public, semi-public and private sectors. In 2017, there were a total of 106 private and public hospitals in Jordan, providing 12,081 beds, with the public sector offering the majority of hospital beds. However, there are major geographic disparities in the distribution of health workers amongst the major cities and the Kingdom's rural governorates. Despite the fact that the quality of healthcare facilities is regarded as good for the region, it is questionable whether facilities will be sufficient to cope with the current health crisis. Corona patients are being treated in 7 hospitals, 3 of which are located in Amman and the others are in different governorates (one in Zarqa, one in Karak, one in Irbid and one in Aqaba). As mentioned above, 35 hotels were rented for quarantine purposes and several quarantine field hospitals were set up.

⁶⁵ Nazer and Tuffaha, 2017, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5407425/>.

The government has committed to provide necessary healthcare to all Jordanians, notwithstanding the type of medical insurance they have, if any.

The country is notably host to a large number of refugees. The authorities, in cooperation with the UNCHR, which is responsible for the operation of healthcare facilities in refugee camps, have prescribed all necessary measures to avoid the spread of COVID-19 and protect the health of the population in the camps. Amongst other measures, no visits or gatherings are allowed and there is no exit from the camps. The UNHCR has reported that, so far, there has been no COVID-19 infection in the camps and that the facilities are in place to face an eventual spread of the disease.

In addition, there are further vulnerable groups which may be particularly affected by the epidemic in the country; first of all, workers in the informal sector, as well as seasonal workers. The government's decision to consider the halting of work to be replaced by official vacation time has meant private sector employers are obliged to continue paying wages and salaries. However, this won't obviously apply to workers in informal sectors, as well as to those employed on a daily or seasonal basis. This is often the case for workers in transport (such as taxis), construction, agriculture and small commercial activities.

Furthermore, it is still not clear how the government is going to sustain the private sector in compensating employees in the absence of revenues: considering that the vast majority of companies in Jordan are micro, small and medium enterprises, this is going to be a widespread possibility and is creating uncertainty. The credit guarantee scheme in Jordan reduced the loan guarantee premium on the guarantees extended for start-ups and industrial loans until the end of the current year.

b. National policy measures for the economic impacts mitigation⁶⁶

Amongst the **policies** put in place to counteract the economic drawbacks of the current situation, to increase liquidity and support the sectors negatively affected by the lockdown, the Central Bank⁶⁷ adopted a number of measures. These include: *“allowing banks to restructure the loans of individuals and companies, especially medium and small ones, which have been affected by the repercussions of COVID-19. Inject more than 550 million dinars to the national economy by reducing the compulsory reserve from 7% to 5%. Reducing financing costs and increasing the maturity of the existing and future advances to the economic sectors extended through the Central Bank programme to finance and support economic sectors (100 basis points reduction on Central Bank monetary policy tools). Support the procedures of the Jordan Loan Guarantee Corporation by reducing the company's programme commissions and raising the insurance coverage rate for the local sales guarantee programme”*.

Other short-term policy measures taken by the government included the partial postponement of the surrendering of sales tax proceeds for three months and early payments of employee salaries. The Social Security Corporation has suspended the implementation of old age insurance for private sector employees for three months, as of March 1, 2020 and reduced the social security

⁶⁶Information and data presented refer to government press releases, news by official news agencies

⁶⁷ (Central Bank of Jordan, <http://www.cbj.gov.jo/DetailsPage/CBJEn/NewsDetails.aspx?ID=279>)

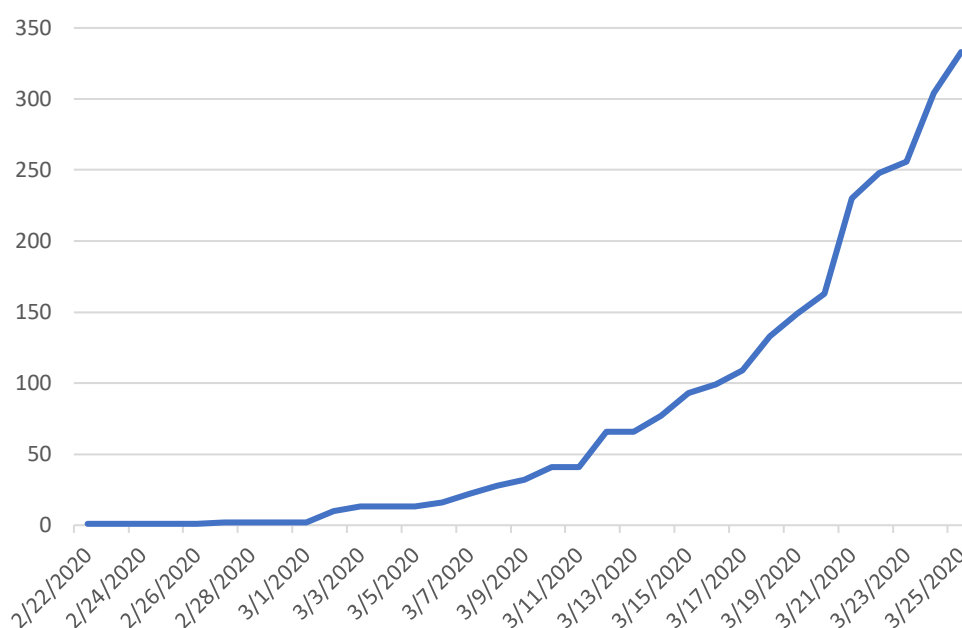
subscription ratio for institutions and employees from 21.75 per cent to 5.25 per cent. Additionally, the Social Security Corporation announced on the 24th March the launch of an online platform to receive applications for in-kind aids, aimed at helping daily paid workers who have been affected by the COVID crisis and low income adults aged over 70.

Yet, no fiscal policy response has been announced by the government to mitigate the negative effect of the measures against the spread of COVID-19. At this difficult time, it is crucial for the government to reassure all affected parties and stakeholders, to create confidence. The International Monetary Fund announced that the four-year 1.4 bl \$ plan of support to Jordan, whose negotiations started in January 2020, should be revised to take into consideration the COVID-19 outbreak. An initial tranche of 140 ml \$ was disbursed on March 25th. Further details on the plan and on the fiscal measures to be put in place have not been announced yet.

3.5 LEBANON⁶⁸

The first COVID-19 infection in Lebanon occurred on February 21st 2020. Since then, the number of people infected has increased, reaching 333 confirmed cases by March 25th (in a population estimated at 6 million including refugees). Up until March 25th, 6 deaths occurred, giving a fatality rate of 1.8 %.

Figure 18 - Cumulative number of confirmed cases in Lebanon



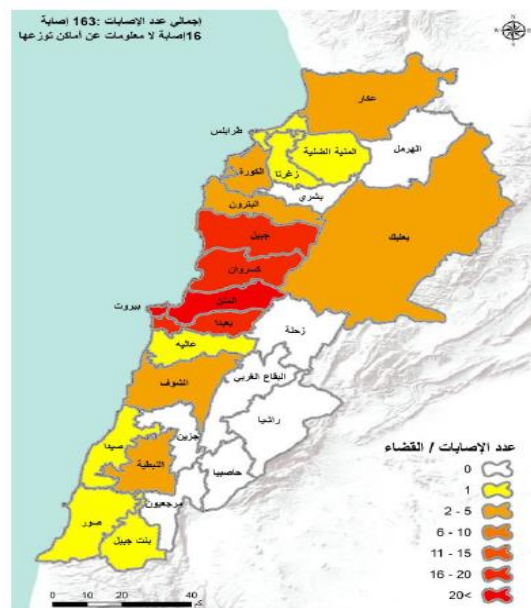
Source: Own elaboration based on the Lebanese Ministry of Health daily reports

⁶⁸ Contribution from Sandra Challita.

The data and information are collected from the Lebanese government, the Lebanese Ministry of Public Health and the World Health Organisation

All Lebanese regions are affected by the virus (cf. Geographical Distribution of confirmed cases of COVID 19, Ministry of Public Health, March 20th) especially the Mount Lebanon Area and Beirut.

In Lebanon, the public healthcare system is underdeveloped. Private hospitals have the highest market share and are perceived as being more reliable. By March 25th, the only public hospital designed to be ready to receive COVID 19 patients was Rafic Hariri University Hospital (RHUH) in Beirut. Other public hospitals are being equipped to be able to receive patients. Currently, the test of COVID-19 is available for free at only 5 hospitals, for patients showing symptoms and sold at a cost of 100 USD in 14 laboratories and hospitals. The shortage of tests can lead to difficulties in identifying those who are contaminated in the population, especially those who are asymptomatic.



The number of ventilators available is 1185 for the whole country; 86% of them are in private hospitals. (Cf. Table 8). Also, public hospitals have a very reduced number of beds, with 336 beds in ICU and a total of 2446 beds (16% of the country’s total beds).

Concerning access to hospitals, the social security only covers certain categories of the population: Employees in industry, commerce and agriculture⁶⁹. There is a special system for public sector employees and teachers. A large category of the population is excluded from the system and, for those who can afford it, they can subscribe to private insurance programmes.

Table 8 - Number of ventilators available in Lebanon

	Public Hospitals	Private Hospitals	Total
For children	42	237	279
For adults	123	783	906
Total	165	1,020	1,185

Sources: Lebanese government, the Lebanese Ministry of Public Health and WHO

⁶⁹ Excluded: Temporary agricultural employees, citizens of countries without reciprocal agreements with Lebanon, the self-employed; and people with foreign employment contracts.

Table 9 - Number of hospital beds in Lebanon

	Public Hospitals	Private Hospitals	Total
Number of beds for emergency	215	878	1,093
Number of ICU beds	336	1,972	2,308
Number of beds in hospitals	2,446	12,749	15,195

Sources: Lebanese government, the Lebanese Ministry of Public Health and WHO

a. National policy measures for containing the contagion

The Ministry of Health has put in a place a national strategy to fight COVID-19, based on different scenarios⁷⁰. Lebanon reached scenario 4 on March 21st and the main measures taken included: (1) Reinforcement of awareness and surveillance activities, (2) Maintaining risk communication and community engagement activities, (3) Implementation of IPC (Infection, prevention and control) programmes in all hospitals and health facilities, (4) Designation of additional referral hospitals, (5) Development of new standard operating procedures for patient diagnosis and referral and home care, (6) Development of protocols for quarantine (self-quarantine, isolation centres etc) (7) Ensuring sufficient stock of property, plant and equipment, with focus on healthcare workers (8) Support for referral laboratories by the Ministry of Public Health and partners with the necessary testing kits and PPEs

On March 1st, for practical reasons, the government decided to close schools and universities. On March 15th, the government declared the general mobilisation and confinement of citizens for 14 days. Public gatherings and religious ceremonies were banned. All non-necessary institutions and private companies were told to close. Air traffic and the country’s borders were closed from midnight on March 18th. Banks declared their branches closed (until March 29th). Also, the media and television stations ran public awareness campaigns.

Several actors coordinated to fight the spread of the disease and are playing an essential role in the crisis (Unicef, WHO Lebanon, Ministries of Public Health and Education, the Lebanese Red Cross and others).

To support the healthcare system, the government has removed customs on imported health equipment and medicines necessary to fight the virus. It is also collecting foreign aid to support public and private hospitals during the crisis.

The country adopted confinement measures relatively early on, compared to other countries facing the propagation of the virus. It was done to avoid the scenario of a severe propagation of

⁷⁰ Scenario 1: No cases; Scenario 2: 1 or more cases, imported or locally detected (Sporadic Cases); Scenario 3: Cases are clustered in time, geographic location and/or common exposure (Clusters of cases); Scenario 4: large outbreaks of local transmission (Community transmission).

the virus, in a context of economic and financial crisis. Since October, hospitals have had a shortage of equipment due to the devaluation of the Lebanese Lira. Citizens generally respect the restrictions because, aside from concern for their health, they cannot afford to fall ill and they are aware of the health system's lack of capacity.

b. Main socio-economic challenges and indicative policy answers

Lebanon has been suffering from a severe economic, financial and debt crisis, ramped up after October 17th 2019 when there were intensive protests against the existing political class, which was considered corrupt. This crisis has increased unemployment levels and several SMEs have gone bankrupt. Also, at the beginning of March 2020 the government announced default on the reimbursement of Eurobonds issued in US dollars and required a rescheduling of the public debt. The Covid-19 crisis has increased the economic difficulties of the population. Government measures of confinement, with no financial ability to economically support firms are expected to increase the economic and financial crises exponentially.

The healthcare system is underdeveloped and governments have not prioritised development of this sector through the years. This sector was mainly supported by foreign aid from governments and NGOs. The challenges remain regarding the resilience and capacity of Lebanese business to stay active, especially after the consecutive shocks the economy has suffered recently.

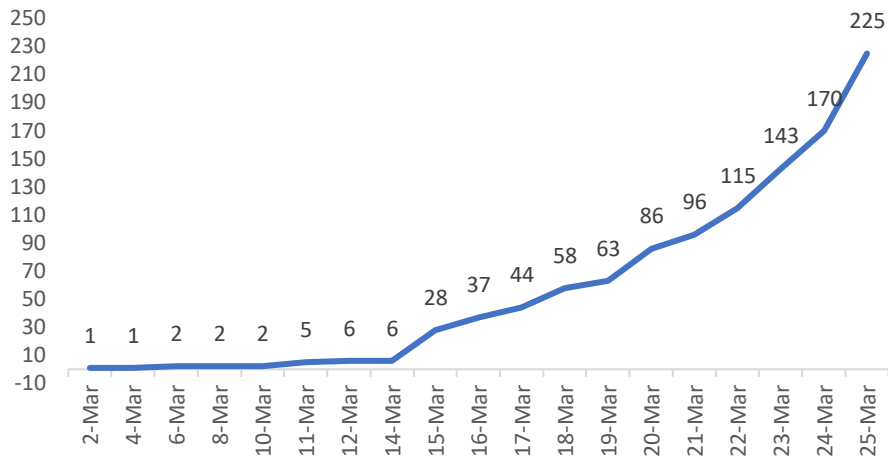
3.6 MOROCCO⁷¹

As the global COVID-19 pandemic spread, Morocco rapidly enacted a number of social, economic and security measures to limit the spread of the virus and to support households and the economy.

The first coronavirus case was confirmed on March 2nd. The Ministry of Health announced 7 cases a few days later, on March 13th. On the same day, Morocco quickly reacted by closing air and sea traffic to Spain and France until further notice, together with land borders with the Spanish enclaves of Ceuta and Melilla, as well as Algeria to prevent further spread of the novel coronavirus. On March 15th, 28 cases were confirmed and the country decided to shut down all international flights.

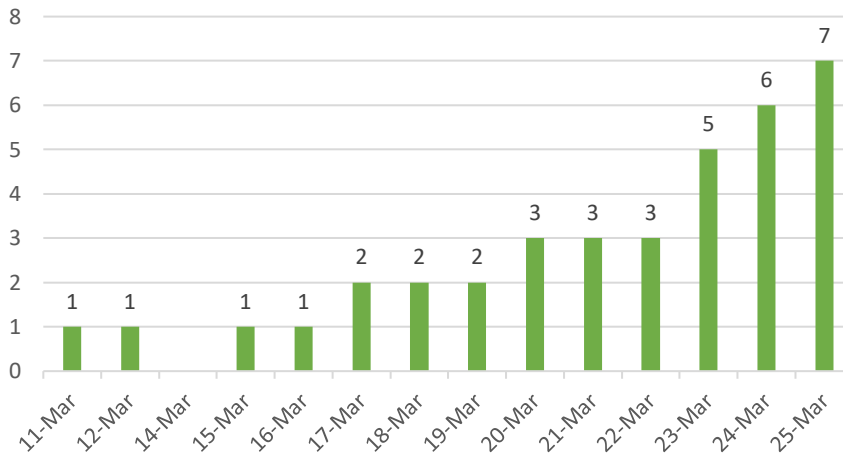
⁷¹ Contribution from Najat El Mekkaoui.

Figure 19 - Evolution of the number of confirmed cases in Morocco (March 2020)



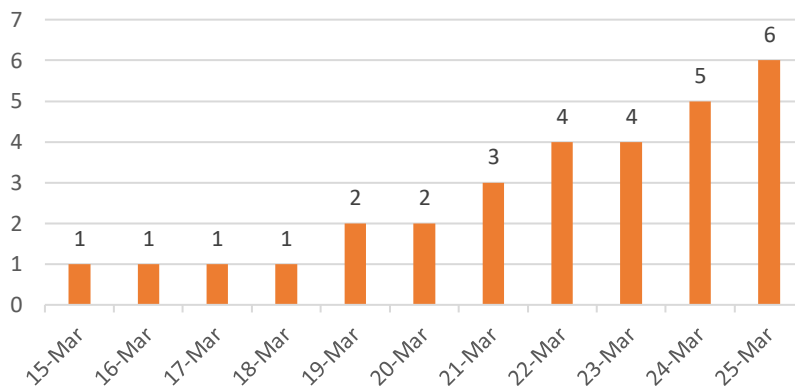
Source : WHO, March 21st, 2020

Figure 20 - Evolution of the number of recovered cases in Morocco (March 2020)



Source : WHO, March 21st, 2020

Figure 21 - Evolution of the number of deaths in Morocco (March 2020)



Source : WHO, March 21st, 2020

The state of emergency was officially declared by Morocco’s Ministry of Interior to come into effect on Friday, March 20th. After three days, the Moroccan authorities implemented strict security measures to prevent the spread of the virus, especially the influx of new cases that originated from sources abroad. As of March 25th, 225 cases were officially recorded on Moroccan soil (WHO).

According to Haut Commisariat au Plan (HCP, Morocco), 10.7 million people were employed in Morocco in 2017 and only 4.6 million are covered with healthcare insurance. The public sector remains the main healthcare provider: 70% of the population attends hospitals. The current healthcare facilities and resources (as seen in the following table) pose serious challenges, in light of the COVID-19 pandemic.

Table 10 – Morocco - Key health statistics

Hospital beds (per 1,000 people)	1.1 (2014)
Nurses and midwives (Per 1,000 people)	1.1 (2017)
Physicians (per 1,000 people)	0.7273 (2017)

Source: WHO, 2020

The healthcare system has a Compulsory Health Insurance (AMO) that provides health coverage to employees in the public and private sectors. In addition, there is a Medical Assistance Plan (Régime d’assistance médicale - RAMED), introduced in 2005, based on the principle of social assistance and national solidarity.

Despite significant progress towards the goal of universal health care, healthcare services remain insufficient across the country and a large proportion of the population is uncovered (around one-third). According to the Ministry of Health, the number of hospitals increased in urban area by 18% in 2011: one establishment per 12,000 inhabitants against 14,600 habitants in 1990. In rural areas, in 2011, there was one hospital for every 6,949 inhabitants against 10,100 inhabitants in 1990 (a 31% of improvement).

As observed in most Arab countries, the main source of healthcare in Morocco is individuals themselves. In fact, out-of-pocket spending represents on average 50% of total public health expenditure in Morocco (like in Mauritania, Syria and Egypt). The government spends around 5% of the gross domestic product (GDP) on the healthcare sector, which is less than half the 12% threshold the World Health Organisation (WHO) recommends for countries to improve their health system.

The serious security measures were wisely adopted, given the limited healthcare resources of the country.

The Ministry of Health has started to provide chloroquine and its derivative, hydroxychloroquine, to health facilities. However, testing for coronavirus is still not in place. A rapid and extensive free testing for the public has been a key element of the response to the epidemic in South Korea.

a. National policy measures for containing the contagion

As a matter of fact, a set of preventative measures were rapidly implemented in coordination with Spain and France, Morocco's two main economic partners. To limit the spread of the virus, the country shut its borders and closed its ports. Traffic by air and sea between Morocco and Spain, France and Algeria was suspended on Friday, March 13th, followed by a further 21 countries including Greece, Turkey, Switzerland, Sweden, Turkey, Denmark, Norway and Austria.

All education activities, restaurants, cafes and cultural events have been suspended, as Moroccans have to stay at home as much as possible. They can leave home with an authorisation from local state officials. Moreover, there is some dispensation for workers in food markets, medical clinics, pharmacies, banks, telecommunication companies, so the confinement is not very restrictive.

b. Main socio-economic challenges and indicative policy answers

Central Bank: Morocco's economy is expected to grow by 2.3% in 2020 rather than by the 3.8% previously forecast (Bank el Maghrib). To support economic activity, following the drought and the outbreak of coronavirus, Morocco's central bank cut its benchmark interest rate on Tuesday (March 17th) by 25 basis points to 2%.

A national committee and a special fund have been established: The Moroccan government has put in place the Morocco Economic Monitoring Committee (CVE) to monitor the evolution of the economic situation in the country and to adopt adequate economic and social actions. Likewise, a special fund was established for the managing the consequences of the Coronavirus.

This Special Fund was created to upgrade health facilities and to support employees and economic sectors. As of March 19th, it had raised more than MAD 15 billion. The first action of the Morocco Economic Monitoring Committee (CVE) was to suspend the payment of social security contributions (CNSS) and to establish a moratorium for the reimbursement of bank loans for the benefit of businesses. Employees, who are affiliated to the National Social Security Fund (CNSS) will benefit from a monthly lump-sum allowance of MAD 2,000 net. These employees will also be able to benefit from the postponement of the repayment of bank loans until June 30th, 2020.

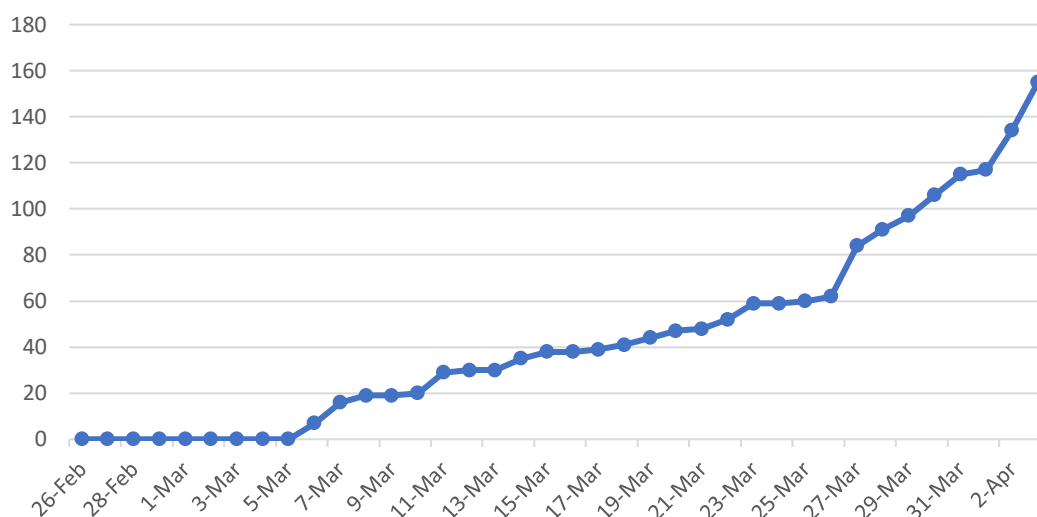
Regarding SMEs and the self-employed who are in difficulty, the payment of social security charges has been suspended until June 30th, 2020. A moratorium on the repayment of bank loans and leases held over until June 30th without fees or penalties being applied. Moreover, companies with an annual turnover of less than MAD20 million in 2019 will benefit from a postponement of the filing of tax returns until June 30th 2020. Other measures are under discussion. The Morocco Economic Monitoring Committee is discussing measures for workers in informal sector.

The Ministry of Economy, Finance and Administrative Reform coordinates Morocco’s Economic Monitoring Committee (CVE). Its members are the Ministry of the Interior, the Ministry of Foreign Affairs, African Cooperation and Moroccans Living Abroad, the Ministry of Agriculture, Maritime Fisheries, Rural Development and Water and Forestry. It also includes the Ministry of Health, the Ministry of Industry, Trade, Green and Digital Economy, the Ministry of Tourism, Handicrafts, Air Transport and Social Economy, the Ministry of Labour and Professional Insertion, Bank Al-Maghrib, the Professional Grouping of Banks of Morocco, the General Confederation of Enterprises of Morocco, the Federation of Moroccan Chambers of Commerce, Industry and Services and the Federation of Craft Chambers.

3.7 PALESTINE⁷²

Since the outbreak of COVID-19 in Palestine on March 5, the cumulative number of infected citizens had reached 115 active cases on March 30 (and 155 on April 3). On the same date, the number of those recovered was 18, with 1 death, whilst 96 were still receiving treatment.

Figure 22 – Confirmed COVID-19 cases in Palestine – cumulative curve



Source: Author’s elaboration with data retrieved from www.ecdc.europa.eu 03.04.2020

The number of quarantined suspected cases is 1,769 and 12,342 people were told to isolate at home⁷³ (see Table 1). The number of conducted COVID-19 tests has reached 5869 cases. The geographical distribution of all active cases shows that 40% are in Bethlehem, 33% in 4 villages of the East Jerusalem Governorate, 11% in Ramallah and 7.8% in the Gaza Strip. The rest of active cases (8.2%) are scattered in 4 governorates, whilst the vast majority of cities, villages and camps are so far clean⁷⁴. All active cases were initially brought by tourists, by returning Palestinians from strongly affected COVID-19 countries and by Palestinian workers in Israel, who commute daily

⁷² Contribution from Samir Abdullah.

⁷³ <https://www.corona.ps/details>

⁷⁴ <https://www.corona.ps>

from their homes in the West Bank to their jobs in Israel. The early implemented containment measures at the border crossings and the immediate isolation and curfew of the Bethlehem Governorate has proved to be effective in containing the spread of the virus so far.

Table 11 - Number of COVID-19 Cases of Infection by Date, Governorate, Source & Current Status in Palestine⁷⁵

Date	No. of Infected	Governorate	Source of Infection	Status
05/03/20	7	Bethlehem	Contact with Greece Delegation	Recovered
06/03/20	10	Bethlehem	Contact with infected locals	Recovered
07/03/20	2	Bethlehem	Contacts with infected	stable
09/03/20	7	Bethlehem	Contact with infected locals	stable
10/03/20	4	Bethlehem	Contact with infected locals	stable
12/03/20	1	Bethlehem	Contact with infected locals	stable
13/03/20	4	Bethlehem	contact with infected locals	stable
14/03/20	3	Bethlehem	Contact with infected locals	stable
16/03/20	1	Tulkarm	Arrival from Poland	stable
17/03/20	2	Jericho, Ramallah	Arrival from Germany(1) And UK (1)	stable
18/03/20	3	Bethlehem	Contact with infected locals	stable
19/03/20	3	Ramallah, Nablus	Arrivals from France (2), Egypt (1)	stable
20/03/20	1	Salfit	Arrival from Pakistan	stable
21/03/20	5	Ramallah (4), Al-Khaleel (1)	Arrivals from U.K (2), USA (1), Turkey (1), and Israel (1)	stable
22/03/20	6	Ramallah (4), Gaza (2)	Arrivals from Pakistan (2)	Stable
25/03/20	1	Ramallah	Arrival from USA	stable
25/03/20	3	Bedo/EJ(2) Rafah(1)	Socialised with infectious	stable
26/03/20	11	Bedo/EJ	Socialised with infectious	stable
27/03/20	3	Irtas/BL(2) Bedo/EJ (1)	Socialised with infectious	stable
28/03/20	7	Irtas/BL (3), Qatana(1) Skaria/BL(1), Hizma/EJ(1) Qbeiba(1)	Socialised with infectious	Stable
29/03/20	8	AlKhaleel(3); Qatanna(5) Qbaiba(1)	Socialised with infectious	stable
30/03/20	7	Qatanna/EJG	Socialised with infectious	stable

⁷⁵ <https://www.corona.ps/>

a. National policy measures for the containment of contagion

The first Palestinian Government (PG) response was launched on January 27 by the declaration of a package of measures, which included the establishment of medical teams to check incoming travellers at the borders. The PG launched check-up centres, quarantine and treatment in all Governorates, as per WHO standards. The PG escalated its containment measures on Feb. 24 with the establishment of a COVID-19 Crisis Unit in the Prime Minister's Office and declared emergency status in all health facilities throughout the country.⁷⁶

Right after the first diagnoses of active COVID-19 cases on March 5th, the President of Palestine declared the **state of emergency** and charged all governmental institutions with taking all necessary measures to face the pandemic⁷⁷. The first measure was to perform COVID-19 tests on all incoming Palestinians and foreigners at the border crossing points and quarantining in the nearby Jericho and Rafah centres, or to place them in home isolation for at least 14 days. These measures did not include visitors and citizens coming to Palestine through Israeli airports and seaports, nor Palestinian workers commuting to their jobs in Israel. These exceptions have become the most serious source of virus transmission in Palestine, especially because the Israeli authorities did not declare serious COVID-19 containment measures until March 10 and did not carry out check-ups at the border, which is fully under its control.

Furthermore, the PG declared the closure of all universities, colleges, schools and kindergartens; prohibited movement to and from the Bethlehem Governorate; banned all celebrations or demonstrations involving gatherings; cancelled all hotel bookings for foreign tourists in general; closed all tourist and religious facilities and areas.

On March 15th, The PG, in agreement with Egypt and Jordan, closed border crossings in both directions, except for freight and humanitarian cases.

On March 17th, the PG prohibited Palestinian workers from commuting to and from Israel. Those who opted to keep going to their jobs were requested to arrange accommodation in Israel for 30 days. Furthermore, workers in the Israeli settlements were requested to stop going to work for their own safety.

On March 18th, the PG declared a curfew inside and between the cities of Bethlehem Governorate. Residents of these cities were required to stay at home in isolation; movement between all governorates was prohibited and public transportation between governorates was put on hold;

On March 22, the PG declared further enforcement of the containment measures including:

- residents of all towns, villages and camps were prohibited access to city centres and the entire population was prohibited from leaving their homes, except for healthcare and food purchases;

⁷⁶ All data provided in this briefing was quoted from the Office of the Prime Minister, MOH reports and WHO reports on COVID-19.

⁷⁷State of Emergency Palestine's COVID-19 Response Plan https://www.corona.ps/files/Palestine_COVID-19_Response_Plan_Final.pdf.pdf

- all shops were closed, except pharmacies, bakeries and grocery stores;
- all arrivals from abroad were kept in quarantine centres for 14 days.

The duration of these measures was for 14 days, effective from March 22nd.

b. National policy measures for economic impact mitigation

Within the very limited resources to mitigate the fiscal, economic and social impact of indispensable containment interventions, the PG took the following measures:

- Payment of salaries to employees in public and private sectors was guaranteed for 6 months.
- Cash liquidity was relatively assured by the Palestinian Monetary Authority (PMA), which ordered banks to reschedule payments of personal and SMEs loan instalments for 6 months for the tourism sector, and for 3 months to all other clients without any additional charges; banks and other financial institutions were ordered to keep their services and staff on shortened work hours.
- Food, medical and other essentials supplies were assured by the private sector and prices were stabilised by formal and informal consumer protection organisations.
- The Palestinian National Authority (PNA) social protection system, which provides subsistence financial support to around 85,000 very poor families, extended its provisions to 20,000 most affected families.

The PNA was able to overcome the first shock of COVID-19 infections. To date, it has been able to protect the lives of all infected patients, except one, and to contain the spread of the virus at an intolerable cost. But the real challenge of the COVID-19 pandemic is yet to be faced, if the Israeli containment efforts extend beyond a period of 6 months⁷⁸. That said, the following facts might explain the critical concerns: the availability of food and medical supplies (except a shortage of protective masks, test kits, intensive care and respiratory machines); informal labourers and daily wage employees are lacking protection and/or any government subsidies. Therefore, extended measures to contain the COVID-19 will lead to a combination of grievances. These are:

- I. Palestinian workers in Israel might lose their jobs for an extended period, which will increase the unemployment rate from 26% to 45%.⁷⁹ Loss of those workers is estimated at \$ 2.5 billion per year (20% of GNP) and will have a strong negative impact not only on the lives of 160,000 labourers and their families, but will reduce Palestinian GDP by no less than 20%.
- II. High dependency on food imports and intermediate products for manufacturing will be severely impacted by the cut or decline in international trade. This might create shortages and/or increase food prices, which limits access to food and leads to famine. In addition,

⁷⁸ https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200327-sitrep-67-covid-19.pdf?sfvrsn=b65f68eb_4

⁷⁹ PCBS, Labour Statistics.

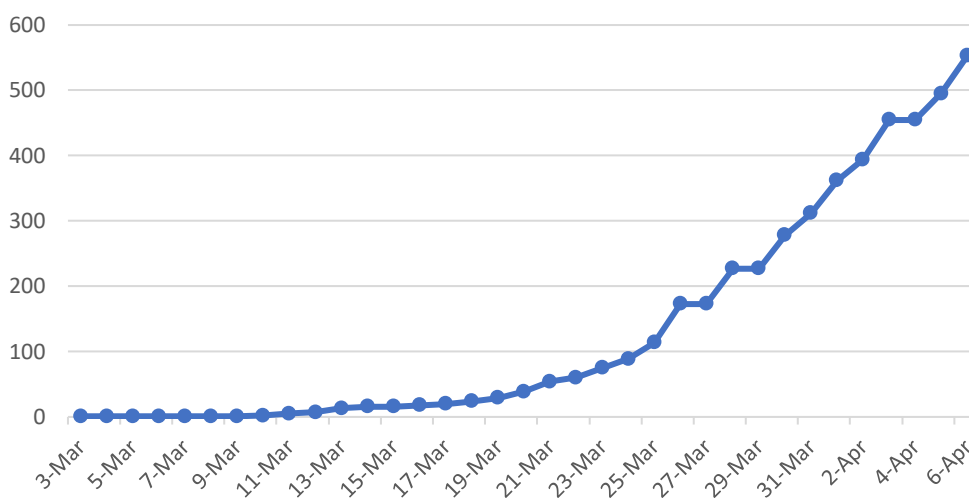
the decline in intermediate goods will interrupt supply to the manufacturing sector, and/or increase their cost of production. In both cases, along with the lack of governmental subsidies, many manufacturers might be forced to shut down, which will increase unemployment.

- III. As a result of the two above mentioned potential developments, the PNA will be challenged by both the sharp decline of financial resources estimated at 40% of fiscal revenues⁸⁰ and the unprecedented mounting of financial requirements in order to fulfil its humanitarian and development duties to its people. The PNA should prepare itself and its people for such an unprecedented existential challenge.

3.8 TUNISIA⁸¹

The Tunisian authorities started to contain and mitigate against COVID 19 in January 2020, by informing the population with full transparency, by raising awareness about hygiene measures and by systematically controlling arrivals through all border points. The first case of COVID 19 was officially declared on March 2. On April 1st, the number of confirmed cases of corona virus was 362 with 9 registered deaths. However, as with all countries in the region, testing has not been comprehensive and disclosed. The number of infections is expected to multiply in the coming days.

Figure 23 - Confirmed Cases in Tunisia - cumulative curve



Source: Author's elaboration with data retrieved from www.ecdc.europa.eu 06.04.2020

⁸⁰ Prime Minister daily briefing on Palestinian TV, March 28.

⁸¹ Contribution from Rim Ben Ayed Mouelhi,

The Tunisian health system is not well-prepared and equipped to care for a large number of patients in the event of an epidemic peak, where there are serious and complicated cases at the stage where they are experiencing breathing difficulties. Tunisia has almost 500 intensive care beds (400 in the public sector and 100 in the private sector)⁸² corresponding to 5 intensive care units per 100,000 people, in the best of cases. This figure is compared to 8 beds in Italy, 10 beds in France and 30 beds in Germany⁸³.

Tunisia has a sufficient number of competent doctors, especially in resuscitation and emergency specialties. Since independence, the country has invested in the education and training of doctors. In terms of equipment, China symbolically supported the country, in order to strengthen preventive measures against the virus, by sending medical garments (e.g. 20,000 masks, 1000 protection glasses, 1500 diagnostic reagents). They announced they were ready to send medical teams. On March 28, the EU announced financial support (in the form of aid) of Euro 250 Million.

a. National policy measures for the containment of the contagion

The majority of cases were imported, especially from the large Diaspora present in Europe. Tunisia has limited travel to and from Europe, starting with Italy. The European decision to close European borders led to a large number of returns of Tunisian residents from abroad, increasing the risk of contagion, despite increased controls and the quarantine obligation for all citizens entering the country.

On March 12th the government ordered the closure of schools and universities, cafés and restaurants from 4 p.m., the suspension of collective prayers and the cancellation of conferences, cultural and sports competitions. A curfew was also imposed.

On March 22th the government moved to the total confinement of its citizens. All activities were suspended, except the primary need sectors, such as health services and food.

b. National policy measures for economic impact mitigation

The Tunisian economy was already fragile from the 2011 revolution and the very difficult situation with its Libyan neighbours. In addition to that, the COVID 19 crisis added to the existing economic difficulties (only 1% of growth in 2019 and an alarming budget and current account deficit). Several companies, especially from the most affected sectors (tourism, transport etc.) were already experiencing difficulties that would lead to massive layoffs. This could further weaken the already fragile Tunisian economy and facing public finance problems.

A new government has recently taken over functions and has set a list of priorities, including the need to mobilise loans of around 11,000 Million Tunisian dinars, in order to close the 2020 state budget. With the COVID-19 crisis, the financial needs will far exceed this amount. The government

⁸²Docteur Kaisar Sassi, Anesthésiste réanimateur, 16 mars 2020 KAPITALIS.

⁸³Source: OCDE, Ouest France 19/3/2020).

will have to mobilise more resources for the healthcare system, to strengthen hospital capacity and equipment, and to support needy families and the vulnerable population.

On March 17, the Central Bank of Tunisia lowered its key interest rate from 7.75% to 6.75% and eased credit risk measures.

On March 21, the government announced a package of 2,500 MDT to support the economy and vulnerable families:

- To provide financial support for poor families and the vulnerable population (150 MDT);
- To set-up a fund dedicated to workers in technical unemployment (300MDT);
- To postpone bank credit payments for 6 months for the salaried on low wages (less than 1,000dt);
- To postpone tax payments for 3 months for enterprises;
- To postpone social contribution payments for 3 months;
- To postpone bank credit payment for 6 months, for enterprises;
- To create an investment fund to support companies affected by the crisis (700MDT);
- To set-up a credit guarantee fund (500MDT);
- To place a tax and customs amnesty;
- To allow offshore enterprises to sell up to 50% of their production on the local market.

On April 1, the Tunisian Central Bank called on banks and financial institutions to suspend dividend distribution for the 2019 financial year.

During the lockdown, teleworking, telemedicine and E-commerce activities have largely increased. Several grants and funds were recently set up to encourage start-ups to develop applications in the fields of telemedicine, E-learning and E-commerce. The digital transformation offers a great opportunity that requires an enabling legal framework, such as the legalisation of E-invoicing, E-signatures and the regulation of E-payments and online transactions. Improving the digital infrastructure (e.g. high quality connectivity, the extension of fibre optics and ultra-high speed internet) and strengthening digital security are essential for accelerating this transformation.

Furthermore, the need to switch to E-learning platforms is another opportunity to develop E-learning. Tunisian universities have been active in moving to online courses. Several online teaching initiatives are already taken place, to prepare students for national competition.

In summary, the global pandemic raised the need to rethink the role of the state and its priorities, to improve the quality of public services, to re-evaluate the real limitations and shortcomings of the healthcare system and to identify ways to address them, such as devoting more resources and limiting the brain drain of doctors and researchers.

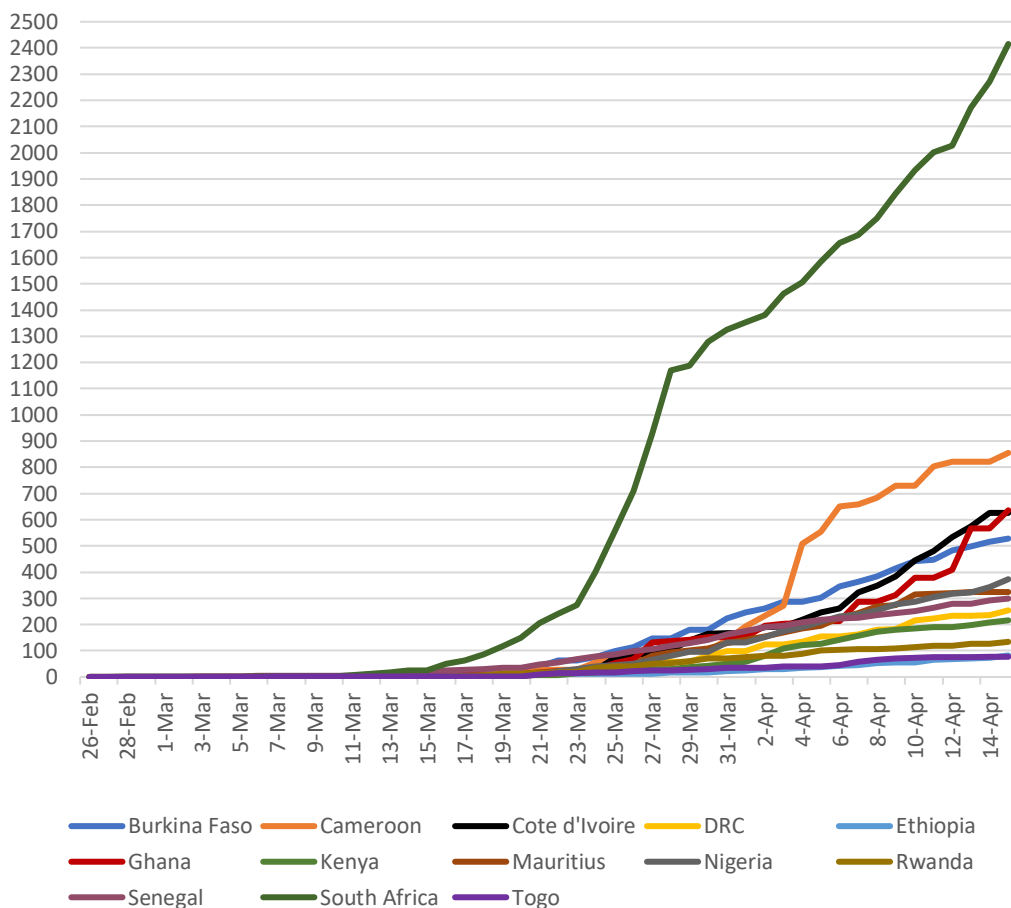
4. COVID-19 in Sub Sahara Africa: Diagnosis and Policy Responses

This section provides the regional diagnosis of COVID-19 and the level of preparedness of national healthcare systems to manage the global pandemic in Sub-Saharan Africa. It delves into Ghana which has been surveyed during the global pandemic. It describes the process of COVID-19 contagion and its characteristics and examines the national policy measures for containment of the contagion and mitigation of its socio-economic consequences.

4.1 REGIONAL DIAGNOSIS

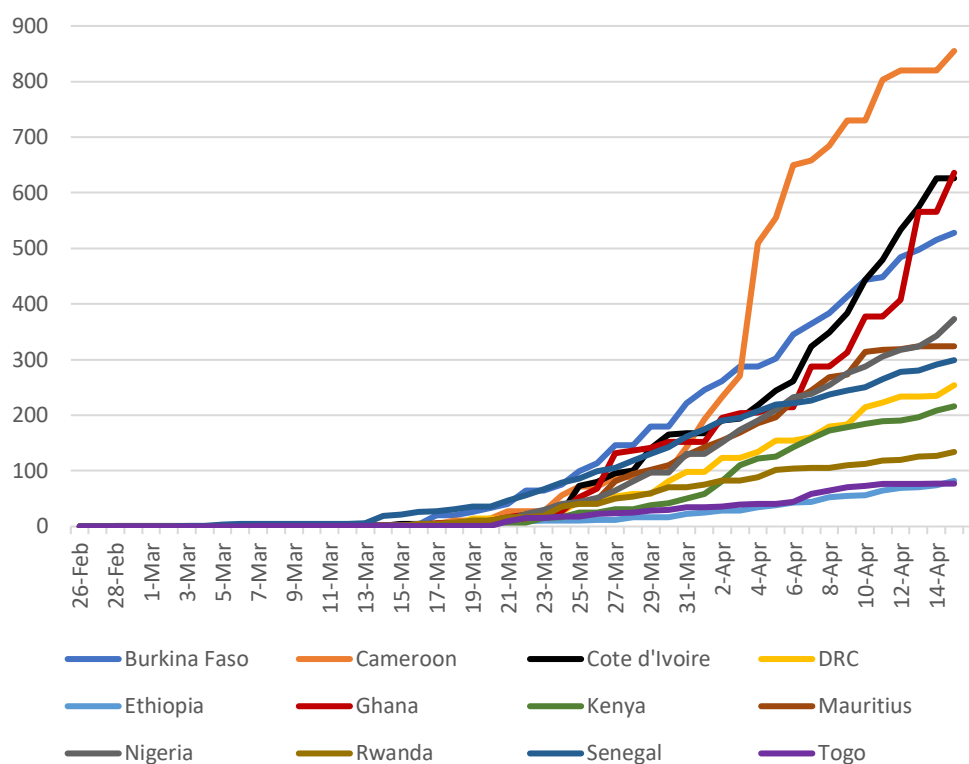
COVID-19 contagion started spreading in Sub-Saharan Africa in March 2020. The most affected country in the region is South Africa, with the epidemiologic curve showing a steep increase since mid-March.

Figure 24 - Sub-Sahara African Countries Cumulative Curves of Covid-19 cases



Source: Author’s elaboration with data retrieved from <https://www.ecdc.europa.eu/> (15th of April 2020)

**Figure 25 - Sub-Sahara African Countries Cumulative Curves of Covid-19 cases
– without South Africa**



Source: Author's elaboration with data retrieved from <https://www.ecdc.europa.eu/> (15th of April 2020)

On April 15, South Africa was the only country in the region registering more than one thousand cases. Epidemiologic curves of the most affected countries show a significant increase in contagion from mid-March for all and particularly steep in the cases of Cameroon, Cote d'Ivoire, Burkina Faso and Ghana. The latter have shown a high weekly increase in COVID-19 cases. Nevertheless, looking at the weekly case variations in the three weeks observed, the contagion seems to have spread significantly less quickly than in Europe.

Table 12 - Sub-Sahara African Countries March-April weekly case variations, deaths and recoveries - most affected countries (23 March- 13 April)

Country	Cases 1. (23- March)	Cases 2. (30- March)	Cases 3. (6- Apr)	Cases 4. (13- Apr)	Variation I (23-Mar- 30-mar)	Variation II (30-Mar- 6-Apr)	Variation III (6-13- Apr)	1st case	Recovered (13-Apr)	Deaths (13-Apr)
Burkina Faso	64	180	345	497	+ 116	+ 165	+ 152	Mar-08	161	27
Cameroon	27	99	650	820	+ 72	+ 551	+ 170	Mar-05	98	12
Cote d'Ivoire	25	165	261	574	+ 140	+ 96	+ 313	Mar-10	85	5
DRC	26	81	154	235	+ 55	+ 73	+ 81	Mar-09	17	20
Ethiopia	11	16	43	74	+ 5	+ 27	+ 31	Mar-12	14	3
Ghana	24	152	214	566	+ 128	+ 62	+ 352	Mar-11	4	8

Kenya	15	42	142	208	+ 27	+ 100	+ 66	Mar-12	40	9
Mauritius	28	110	227	324	+ 82	+ 117	+ 97	Mar-12	42	9
Nigeria	30	97	232	323	+ 67	+ 135	+ 91	Feb-27	85	10
Rwanda	19	70	104	126	+ 51	+ 34	+ 22	Mar-13	25	0
Senegal	67	142	222	291	+ 75	+ 80	+ 69	Mar-01	178	12
South Africa	274	1,280	1,655	2,173	+ 1,006	+ 375	+ 518	Mar-04	410	25
Togo	15	30	44	76	+ 15	+ 14	+ 32	Mar-05	29	3

Source: Author's elaboration with data retrieved from <https://www.worldometers.info/coronavirus/#countries> and <https://www.ecdc.europa.eu/> (13th of April 2020)

South Africa registered 2,173 cases in just 39 days from when the first case was detected and Cameroon reported 820 cases in 38 days. Burkina Faso and Ghana confirmed 497 and 566 cases respectively in little more than a month from the first confirmed case confirmed. The case-fatality rate is low in the most affected countries in the region, with high rates of recoveries, particularly in Senegal (61.17%).

Table 13 - Sub-Sahara African Region Countries - Covid-19 situation (13th of April 2020)

Country	Cases (Confirmed)	Recovered (% of confirmed)	Deaths (% of confirmed)	Still Positive (% of confirmed cases 6-Apr)	Test per million	Days (from the 1st case)
Burkina Faso	497	32.39	5.43	62.17		35
Cameroon	820	11.95	1.46	86.59		38
Cote d'Ivoire	574	14.81	0.87	84.32		33
DRC	235	7.23	8.51	84.26		34
Ethiopia	74	18.92	4.05	77.03	36	31
Ghana	566	0.71	1.41	97.88	1,221	32
Kenya	208	19.23	4.33	76.44	139	31
Mauritius	324	12.96	2.78	84.26	5,565	26
Nigeria	323	26.32	3.10	70.59	24	45
Rwanda	126	19.84	0.00	80.16	152	30
Senegal	291	61.17	4.12	34.71		42
South Africa	2,173	18.87	1.15	79.98	1,350	39
Togo	76	38.16	3.95	57.89	306	38

Source: Author's elaboration with data retrieved from <https://www.worldometers.info/coronavirus/#countries> and <https://www.ecdc.europa.eu/> (13th of April 2020)

This region is particularly vulnerable, since most countries are still classified as 'Least Developed Countries' (LDCs) and, therefore, exhibit a lack of economic resources to invest in their national healthcare systems. Table 14 shows a generally low level of healthcare expenditure and high out-of-pocket expenditure in all countries. International aid represents less than 1% of global health expenditure and is declining as a proportion of healthcare spending in upper-middle income countries (i.e. South Africa). Instead, it is increasing in low and lower-middle countries (i.e. Nigeria,

Kenya, Ghana, Ethiopia, etc.), which still represent the region's major income group. Data suggests that aid has increased healthcare spending, but it has also been associated with a reduction in the share of domestic government revenues allocated to healthcare. In low income countries, the median per capita value of spending on healthcare from external sources increased from US\$ 5 in 2005 to US\$ 9 in 2016, whilst the median value of public spending on healthcare, as a share of general public spending (indicating health prioritisation), dropped from 7% to 5%⁸⁴.

Many African countries are financially weak because their revenue and finance generating structures are inadequate and inefficient. Consequently, a large number of vulnerable people could be severely affected by COVID-19.

Table 14 - Sub-Sahara Africa Region Countries - Healthcare Systems Overview

Country	Current health expenditure (% of GDP) (2016)	Out-of-pocket expenditure (% of health expenditure) (2016)	Hospital beds (per 1,000 people) (2016)	Nurses (per 1,000 people) (2011-15)	Physicians (per 1,000 people) (2011-15)
Angola	2.9	35.2	0.8	1.3	0.2
Benin	3.9	43.5	0.5	0.6	0.2
Botswana	5.5	5.20	1.8	3.3	0.4
Burkina Faso	6.8	31.4	0.9	0.6	0.1
Burundi	6.2	30.5	0.8	0.7	0.1
Cabo Verde	5.2	26.0	2.1	1.2	0.8
Cameroon	6.1	69.5	1.3	0.9	0.1
CAR	4.3	43.1	1.0	0.2	0.1
Chad	4.5	61.2	0.4	0.4	0
Comoros	7.6	73.1	2.2	0.9	0.2
Congo, DRC	3.9	37.4	0.8	0.5	0.1
Congo, Republic	4.6	49.7	1.6	1.7	0.1
Cote d'Ivoire	4.4	40.1	0.4	0.9	0.2
Djibouti	3.5	25.8	1.4	0.5	0.2
Equatorial Guinea	3.4	72.8	2.2	0.5	0.4
Eritrea	3	59.1	0.7	0.6	0.1
Eswatini	7.7	9.90	2.1	2.0	0.1
Ethiopia	4	37.4	0.3	0.8	0.1
Gabon	3.1	22.5	6.3	2.6	0.4
Gambia	4.4	23.6	1.1	1.6	0.1

⁸⁴ Xu K, Soucat A & Kutzin J et al., Public Spending on Health: A Closer Look at Global Trends. Geneva: World Health Organisation; 2018 (WHO/HIS/HGF/HFWorkingPaper/18.3).

Ghana	4.4	37.8	0.9	1.2	0.2
Guinea	5.5	49.8	0.3	0.4	0.1
Guinea-Bissau	6.1	35.4	1	1.4	0.2
Kenya	4.5	27.7	1.4	1.5	0.2
Lesotho	8.1	18.9	1.3	0.7	0.1
Liberia	9.6	47.3	0.8	0.1	0
Madagascar	6	22.4	0.2	0.1	0.2
Malawi	9.8	11.4	1.3	0.3	0
Mali	3.8	35.3	0.1	0.4	0.1
Mauritania	4.2	50.9	0.4	1.0	0.2
Mauritius	5.7	48.2	3.4	3.4	2.0
Mozambique	5.1	7.70	0.7	0.4	0.1
Namibia	9.1	7.70	2.7	2.8	1.4
Niger	6.2	58.5	0.3	0.3	0.1
Nigeria	3.6	75.2	0.5	1.5	0.4
Rwanda	6.8	6.4	1.6	0.8	0.1
Sao T&P	6	14.4	2.9	2.3	0.3
Senegal	5.5	51.8	0.3	0.3	0.1
Seychelles	3.9	2.10	3.6	3.3	0.9
Sierra Leone	16.5	41.6	0.4	1	0
Somalia			0.9	0.1	0
South Africa	8.1	7.80	2.8	3.5	0.9
South Sudan					
Tanzania	4.1	21.9	0.7	0.4	0
Togo	4.1	50.4	0.7	0.3	0
Uganda	6.2	40.3	0.5	0.6	0.1
Zambia	4.5	12.1	2.0	0.9	0.1
Zimbabwe	9.4	21.2	1.7	1.2	0.1

Source: Author's elaboration with data retrieved from World Bank Data
<https://data.worldbank.org/> (28th of March 2020)

The implementation of measures to contain the viral contagion has been prompted in the majority of countries. The African Union (AU) has been monitoring the spread in all countries. The AU has published partner guidelines to help governments assess policy measures, as well as to inform citizens on how to prevent infection. These guidelines are based on the analysis of the recent experiences of the other countries (i.e. China, Southern European Countries). The AU's guidelines recommended the adoption of social distancing measures⁸⁵ through an adequate communication strategy, based on the explanation of the benefits to engage communities in its application. A GeoPoll survey on the perception and understanding of COVID-19 in South Africa, Kenya and

⁸⁵ Retrieved from https://au.int/sites/default/files/documents/38262-doc-africa_cdc.pdf

Nigeria, revealed high awareness about the virus, but more about the global infection rather than about its consequences locally and about the possibilities of infecting themselves⁸⁶. The majority of AU partners have imposed restrictions on travel, public gatherings and the general movement of people across regions or municipalities. Some of them have also imposed a night-time curfew (e.g. Mali, Burkina Faso)⁸⁷. In Senegal, immediately after the declaration of the state of emergency (March 23), the country started closing public places, imposing a curfew from 8 p.m. to 6 a.m. and prohibiting movement of citizens across different regions in the country⁸⁸. Kenya implemented stricter measures, imposing lockdowns and curfews or sealing off major cities. Rwanda was the first country in the region to impose a national lockdown⁸⁹ followed by Zimbabwe. Strict containment measures have shown a high level of effectiveness in controlling the contagion's spread throughout all countries. Nevertheless, in some countries in Sub Saharan Africa containment measures have already taken a violent turn⁹⁰. The countries in this region must continue addressing containment measures, but in so doing, they have to face considering daunting challenges:

- As for lockdown measures, to take into account the prevalence of people working in the informal sector. These informal workers are not able to sustain their daily earnings, essential to satisfy their basic needs (and often of their large families). In the absence of an organised safety net, they will not find support during this period;
- As for quarantine and “stay at home” campaigns, urban poverty and slum incidence in the region is high. Therefore, it will be difficult and unsafe for many people to apply these measures⁹¹. It is worth noting that several African countries have refugee shelters where refugees are already living in unsafe and precarious conditions;
- As for hygiene and health measures, apart from ill-equipped health facilities, many cities have no clean running water and several countries are suffering food and water shortages, particularly in Sahel, already strongly affected by climate change.

The majority of Sub-Saharan countries started to implement restrictions and discuss plans for socio-economic effect mitigation earlier than Europe. The expectation is that the implementation of these measures started early enough - when the number of infections was still low - to slow down the spread. Governments across Africa have been trying, with the collaboration of the WHO, to prevent and detect the outbreak⁹².

⁸⁶ <https://www.brookings.edu/blog/africa-in-focus/2020/04/02/figures-of-the-week-perceptions-of-covid-19-in-south-africa-kenya-and-nigeria/>

⁸⁷ See <https://qz.com/africa/1827789/coronavirus-ghana-senegal-burkina-faso-shut-down/>

⁸⁸ See <http://apanews.net/en/news/covid-19-senegal-declares-state-of-emergency/>

⁸⁹ See <https://time.com/5811945/coronavirus-prevention-africa/>

⁹⁰ See <https://time.com/5811945/coronavirus-prevention-africa/>

⁹¹ In this regard, the AU mentioned that “based on legal authority and local considerations of risk, health officials will need to decide whether to restrict movement to a place other than home, i.e., a quarantine facility”, also suggesting making some important considerations. Nevertheless, how feasible this could be for the majority of Africans Governments is a big question. See https://au.int/sites/default/files/documents/38260-doc-africa_cdc_guidance_for_assessment_monitoring_and_movement_restrictions_of_people_at_risk_for_covid-19_in_africa.pdf

⁹² <https://www.theguardian.com/world/2020/mar/20/africas-fragile-health-systems-rush-to-contain-coronavirus>

On 22 February, the Chairperson of the African Union Commission, opened an emergency meeting of African Health Ministers to produce a continental strategy to face Covid-19 emergency⁹³. On 27th of January, the African Centre for Disease Control and Prevention (Africa CDCs) activated its Emergency Operation Centre and its Incident Management System (IMS) for COVID-19, with a plan for 16th of March – 15th of April⁹⁴.

International organisations have started to work on different plans for Africa. The IMF and WHO committed to work together to guarantee protection of both “lives and livelihood”, with particular attention to Sub Saharan Africa. The IMF announced the replenishing of the Catastrophe Containment and Relief Trust, to help the poorest countries and has already deployed US\$ 1 trillion lending capacity. Other measures are on the table (i.e. financial schemes for MSMEs, plans to help governments enhance safety nets, etc.)

The WB has already provided an initial set of Covid-19 Emergency Response Projects, funded under the Fast-Track Facility (US\$ 35 million to Ghana, US\$ 50 million to Kenya, US\$ 82 million to Ethiopia, US\$ 20 million to Senegal and US\$47 million to the Democratic Republic of Congo) for COVID-19 preparedness and response, including the provision of vital medical equipment, health system capacity-building, support to establish treatment centres, to train medical staff and provide equipment to ensure rapid case detection and contact tracing. The World Bank is also supporting implementation of Djibouti’s Preparedness Plan with \$5 million in IDA credit⁹⁵.

West African countries are the most affected and also the most engaged in finding solutions. As for the lack of availability and the high cost of COVID-19 tests, Senegal is working with a UK company to develop a quick test at a cost of US\$1 for each - and this could be performed without electricity. Furthermore, Senegal is also pioneering the use of the anti-malarial drug, chloroquine, to treat coronavirus patients⁹⁶. Rwanda set up portable sinks for handwashing in some public areas in the capital Kigali⁹⁷. Liberia and Democratic Republic of Congo have built facilities for screening, diagnostic and training programmes to help doctors and nurses recognise COVID-19 infections. The Nigeria Centre for Disease and Control (NCDC) is actively addressing the COVID-19 response, with the establishment of an independent institution run by experts working in the public interest and independent of political interference. Many other countries in the region have set up multidisciplinary task forces to lead emergency responses to COVID-19⁹⁸. Despite the global pandemic, a new online platform to develop businesses has been launched in Benin. Thanks

⁹³ <https://au.int/en/pressreleases/20200222/statement-chairperson-preparedness-and-response-coronavirus-disease-africa>

⁹⁴ <https://africacdc.org/disease-outbreak/novel-coronavirus-2019-ncov-global-epidemic-24-march-2020/>

⁹⁵ <https://www.worldbank.org/en/news/press-release/2020/04/02/world-bank-group-launches-first-operations-for-covid-19-coronavirus-emergency-health-support-strengthening-developing-country-responses>

⁹⁶ See <https://www.bbc.com/news/live/world-africa-47639452>

⁹⁷ <https://www.reuters.com/article/us-health-coronavirus-rwanda/rwanda-keeping-coronavirus-at-bay-with-campaign-of-public-handwashing-idUSKBN20Y2R8>

⁹⁸ <https://www.brookings.edu/blog/africa-in-focus/2020/03/20/coronavirus-amid-the-global-pandemic-lessons-for-africa/>

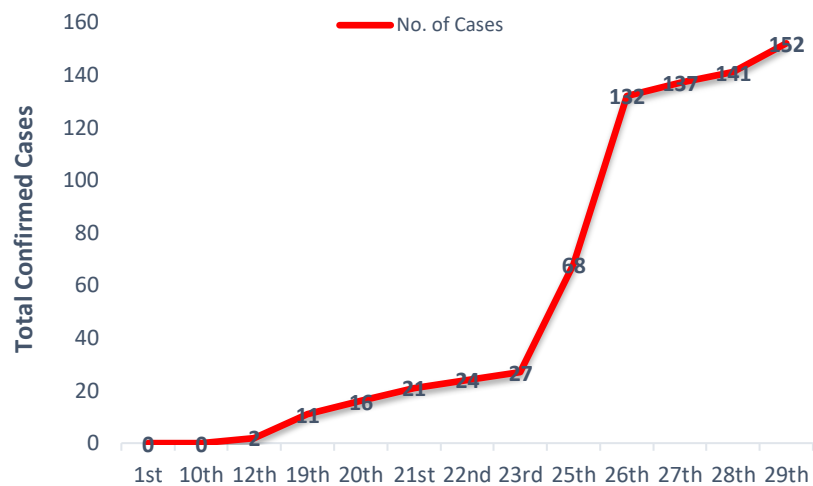
to this innovative platform, 138 new enterprises were created between 16 and 20 March⁹⁹. These are only a few of the innovative initiatives that countries in the region have started to implement in response to COVID-19. Africa has the youngest population in the world, exhibiting high mobile penetration and rates of connectivity. With the right support from international, civilian society organisations, the use of new technology and counting on global solidarity, Africa might have the opportunity to overcome the pandemic.

4.2 GHANA¹⁰⁰

The Government of Ghana has adopted a wide range of measures to contain the spread of the virus – largely congruent with strategies adopted by other governments globally. Conversely, these measures have also created business and labour disruption through enforced isolation, travel bans and border controls.

The World Health Organisation (WHO) declared the disease as a global pandemic on March 11 after over 4,500 new cases were reported across the world, but with only six in Africa at that point. According to information from the WHO and the Ghana Health Service, the virus eventually reached the shores of Ghana on the 12 March 2020, with the government reporting the country’s first 2 cases. Subsequently, as at 29 March 2020, a total of 152 cases were confirmed with 5 related deaths since the breakout. Considering that the first infection was confirmed on 12 March, the state of current data indicates there has been a rapid and alarming daily increase.

Figure 26 - Ghana cases - cumulative curve



Source: Ghana Health Service, 29-03-2020

⁹⁹ <https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=2310>

¹⁰⁰ Contribution from Kwame Barnieh Sarpong.

Table 15 - Ghana COVID-19 cases, deaths and recoveries

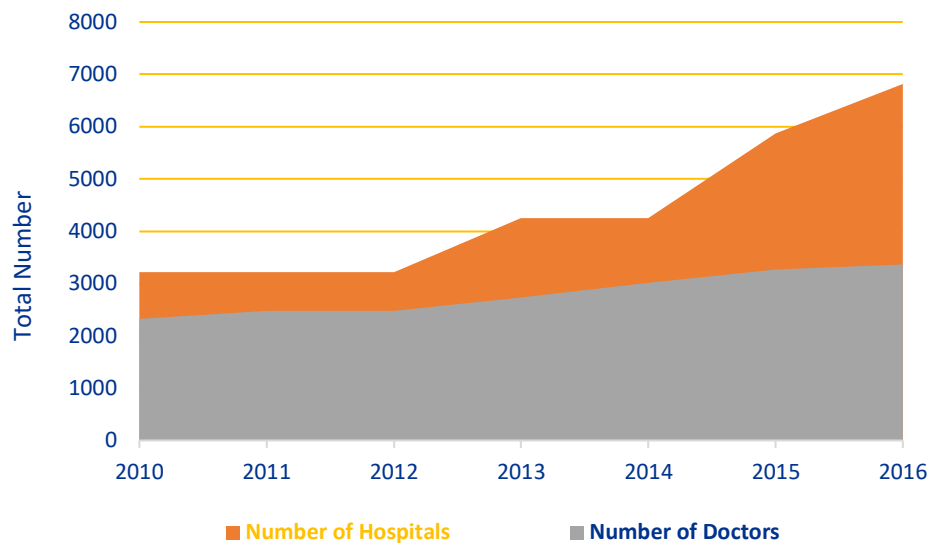
DATE	CONFIRMED CASES	NEW CASES	DEATHS	RECOVERED	% INCREASE OF CONFIRMED CASES
12/03/2020	2	2	-	-	-
15/03/2020	6	4	-	-	200.0
17/03/2020	7	1	-	-	16.7
18/03/2020	9	2	-	-	28.6
19/03/2020	11	2	-	-	22.2
20/03/2020	16	5	-	-	45.5
21/03/2020	21	5	1	-	31.3
22/03/2020	24	3	-	-	14.3
23/03/2020	27	3	2	-	12.5
24/03/2020	53	26	-	-	96.3
25/03/2020	68	15	3	-	28.3
26/03/2020	132	64	-	1	94.1
27/03/2020	137	5	4	2	3.8
28/03/2020	141	4	5	-	2.9
29/03/2020	152	11	5	-	3.2

Source: Ghana Health Service, 29-03-2020

The country's two main commercial hubs (Accra and Kumasi) have been the most hit by the pandemic, with Accra notably recording the highest tally of positive confirmed cases. Other entry points like Wa, Tamale and the Togo borders, have also become hotspots. The main carriers have been travellers arriving in the country, but local-to-local transmissions have also been confirmed by the health authorities.

The Country shows a deficiency in the number, capacity and ratio of hospitals to doctors. Although there have been efforts to strengthen the healthcare system, with the construction of hospital facilities as well as the training of more medical professionals across the country, without additional resources an outbreak such as this pandemic might overwhelm the current system. The current state of the Ghanaian Health Sector is displayed in the data below.

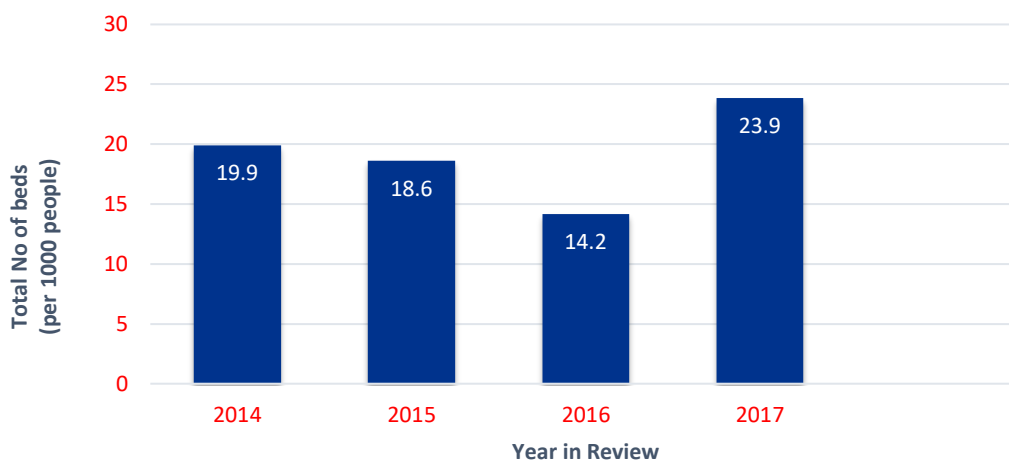
Figure 27 - Ghana Ratio of Hospitals to Doctors (Public and Private Sector)



Source: Ghana Health Service. (Data may have changed as at 2020)

The situation is even worse considering the ratio of beds per health facilities. Despite the progress being made, several health institutions in the country are undermanned and will struggle to deal with a devastating pandemic like Covid-19.

Figure 28 - Distribution of hospital beds to population in Ghana



Source: Ghana Health Service. (Data may have changed as at 2020)

a. National policy measures for the containment of the contagion

The reported cases have been segregated into taxonomies by the health authorities, in order to describe the current state of actions being taken with COVID-19 cases. New confirmed cases in Tamale have also been quarantined.

- i. The routine surveillance classification refers to individuals from various parts of the country, whose samples were collected for testing after showing symptoms of the disease and are currently being monitored.

Table 16 - Routine Surveillance (Ghana Health Service)

<i>Confirmed Cases</i>	63
<i>Recovered</i>	2
<i>Responding to Treatment</i>	56
<i>Critical Condition</i>	0
<i>Deaths</i>	5

- ii. Mandatory quarantine was initially imposed on all travellers entering the country before March 22, when the government officially closed borders for two weeks. Accra, being the main entry point, naturally became the mainstay for this quarantine exercise to prevent the spread to other parts of the country

Table 17 - Mandatory Quarantine in Accra (Ghana Health Service)

<i>Confirmed Cases</i>	79
<i>Recovered</i>	0
<i>Responding to Treatment</i>	79
<i>Critical Condition</i>	0
<i>Deaths</i>	0

- iii. 10 Guinean residents who managed to enter the country through the north (Wa) were picked up in Tamale following an intelligence report for testing. They were put into mandatory quarantine until their test results returned as positive on 29 March 2020.

Table 18 - Mandatory Quarantine Tamale (Ghana Health Service)

<i>Confirmed Cases</i>	10
<i>Recovered</i>	0
<i>Responding to Treatment</i>	10
<i>Critical Condition</i>	0
<i>Deaths</i>	0

The President of the Republic of Ghana, acting in line with the Imposition of Restrictions Act, 2020 (Act 1012), has imposed a partial lockdown. This is intended to halt the spread of the virus and to effectively scale-up contact tracing of anyone who may have been in contact with infected people, to test them for the virus and if proven that they have the virus, to quarantine and isolate them for treatment.

On the 30th of March, the government imposed restrictions on the movement of people in the Greater Accra Metropolitan Area (GAMA, which includes Awutu Senya East) and the Greater Kumasi Metropolitan Area and contiguous districts, for a period of two weeks, subject to review. Anyone found to be flouting the restrictions was to be dealt with fully, in accordance with the law. The security services have been conferred the necessary power to enforce these measures.

The directives given by the government are as follows:

- Travel Restrictions and Suspended Consular Services
- Strict Social Distancing and Ban on Public Gatherings
- Closure of Schools and Other Public Establishments
- Designated Case Management and Quarantine Centres
- Shutdown of all Educational Institutions
- Shutdown of all Recreational Centres
- Fumigation of Local Markets
- Establishment of a COVID-19 Fund to receive contributions and donations from the public to assist in the welfare of the needy and the vulnerable.
- Imposition of Restrictions Act, 2020 (Act 1012), restrictions on movement of people in the Greater Accra Metropolitan Area (GAMA, which includes Awutu Senya East), and the Greater Kumasi Metropolitan Area and contiguous districts, for a period of two weeks, subject to review
- No inter-city movement of vehicles and aircraft for private or commercial purposes in the areas of the restrictive measures, except for vehicles and aircraft providing essential services and those carrying cargo
- Commercial vehicle stations must observe appropriate hygiene protocols and social distancing

- The Ministry of Local Government and Rural Development has also engaged with the leaders of market associations in the country, to make satisfactory arrangements to ensure observance of social distancing and enhanced hygiene protocols

b. National policy measures for economic impact mitigation

In addition to the measures for the containment of the contagion, several macroeconomic and sectoral policies for the mitigation of the socio-economic impact were implemented. The Bank of Ghana's initiative to support commercial banks contained:

- Reduction in Monetary Policy Rate from 16% to 14.5%
- Reduction in Primary Reserve Requirement from 10% to 8% and Capital Conservation Buffer from 3.0% to 1.5%
- Fiscal commitment of \$100m allocated to fight coronavirus
- Ease in mobile wallet transactions [Daily limits increment and up to GHS100 charge-free transactions (excl. cash out)]
- 2% reduction of bank interest rates, effective from 1 April 2020
- Six months' moratorium of principal repayments for entities in the airline and hospitality industries, i.e. hotels, restaurants, car rentals, food vendors, taxis, and uber operators.
- Realignment of Statutory Funds towards expenditures that tend to mitigate the impact of the coronavirus pandemic (sanitation and health related expenditures) and limiting the award of new contracts whilst focussing on the payment of arrears.
- The amendment of the Bank of Ghana Act to allow for government borrowing from BOG, beyond the stimulated threshold in the Act, in the event of tight domestic market financing conditions and;
- A syndication facility of GHS 3 billion to support industry, especially the pharmaceutical, hospitality, service and manufacturing sectors.

The Ghana Revenue Authority also outlined the following interventions:

- Remission of penalties on principal debts to Taxpayers who redeem their outstanding debts due to the GRA, up to 30th June 2020;
- VAT waivers on donations of equipment stocks and goods for fighting the Covid-19 pandemic
- Tax waivers on selected Third-Tier Pension withdrawals; and permitting the deduction of contributions and donations towards COVID-19 as an allowable expense for tax purposes.

Measures taken by the Ministry of Finance:

- To prepare, for approval by Parliament, a Coronavirus Alleviation Programme to address the disruption in economic activities, the hardship of the population and to rescue and revitalise Ghanaian industries.

- To avail one billion credit (GH¢1 billion) to target assistance to households and businesses, particularly small and medium scale enterprises.

Measures to empower the health sector:

- The affected areas and, indeed, all other regions have earmarked designated isolation and treatment centres for the management of suspected and confirmed cases, as well as the selection of facilities to carry out mandatory quarantine.
- Intensive public health education and community awareness on social distancing and hand washing will be carried out.
- Recruitment of one thousand (1,000) community health workers and an additional thousand (1,000) volunteers to help in this endeavour.
- One hundred pick-up vehicles and two thousand, five hundred (2,500) tablets have been mobilized for this exercise.
- Distribution of seventeen thousand (17,000) coveralls, three hundred and fifty thousand (350,000) masks, seventeen thousand (17,000) goggles, two thousand four hundred (2,400) non-contact thermometers, three hundred and fifty thousand (350,000) gloves, twenty-five thousand (25,000) sanitisers and thirty-thousand (30,000) tests kits are ongoing for healthcare personnel and those undertaking contact tracing and testing.
- Supplies donated by the Jack Ma Foundation which includes masks, testing kits and protective suits.
- GH¢300 million to NHIA to provide liquidity to Health Care providers and the pharmaceutical industry.
- Special Life insurance cover for 10,000 health personnel and allied professionals.

During a period of shifting priorities, it may be natural for attention to shift away from financial and other issues that families and individuals have cared for meticulously and, instead, towards the basic need for survival.

The impact of Covid-19 on the global economy will continue to evolve, however, and the following are a few key consequences that can easily be projected:

- Direct effect on bilateral trade and investment, global commodity prices, tourist flows, fiscal stance and well-being owing to disruptions to the global supply chain.
- Over 65% of the global economy is affected by the lockdown and quarantine measures adopted by various governments. The aftermath will be significant, regardless of the infection rate.
- The World Bank and several economic multilateral organisations are all forecasting a significant slowdown of global GDP growth, predicting a recession or a severe economic contraction in the middle-term (Bloomberg estimates an impact of US\$2.7 trillion).

- Predicted widespread supply shortages in essentials sectors (i.e. food, pharmaceutical, and manufactured goods) combined with huge price increases.
- The UN predicts that half of jobs in Africa could be lost which, coupled with a slowdown in investment, will further dampen economic activity.
- An unprecedented volatility and collapse of stock markets which are already recording all-time low indices due to the virus affecting many countries.
- Tighter global financing conditions despite interventions through monetary policy to cut interest rates.
- Decline in the revenue of oil producing countries due to the low international price of crude oil.
- A regression for the tourism and hospitality industries resulting from border closures, fewer international trips, cancellation of cruise line, airline suspensions, and cancellation of regional and global events.
- Reduction in international remittances.
- Unexpected surge in health spending, disrupting the fiscal policies of many countries.
- Resultant high public debt burden.
- A general reduction in foreign direct investments and flights of capital.

The key impact of Covid-19 on Ghana's economy:

- Direct negative effects on production, trade and investment within Ghana and with international partners in Europe and Asia and direct negative effects on global commodity prices (crude oil, gold, and cocoa).
- Indirect effects due to the slowing of global economic growth (i.e. supply chain disruptions) and, by extension, the negative impact on Ghana's growth.
- The loss of valuable skilled human resources (5 deaths reported already) would impact all sectors of the economy.
- Ghana is classified by WHO as being amongst 13 priority 1 countries to be at risk, based on international passenger volumes.
- Significant reductions in imported intermediate goods could slow down manufacturing activities in Ghana. About 3.6% of GDP imports are from China

- Exports to China contribute about 3.3% of GDP. The country is already experiencing a slowdown in China trade which is impacting customs receipts. Between January and March 2020, customs revenue declined by GHS593.17 million, a difference between a targeted inflow of GHS2,821.58 million and actual of inflow of GHS2,228.41 million.
- The Bank of Ghana is predicting a worst-case GDP growth rate scenario of 2.5% for 2020, and a shortfall of the projected 6.8% if the pandemic continues to linger for the rest of the year. This would regress the advancements made in 2017 (8.1%) and 2018 (6.3%) according to data from The World Bank.
- Increased constraints on the 2020 budget, with significant loss of revenue (petroleum, duties, income tax) and heightened health sector expenditure.
- Repayment of tighter financing sources by government, putting adverse pressure on economic indicators.
- Debt service difficulties (especially from sectors that are hardest hit, such as aviation and hospitality).
- An increased demand for dollars could impact negatively on Ghana's foreign reserves.

The virus has caused a global closure of borders (land, sea and air) and cancellation of flights due to social distancing requirements. This is having a huge adverse effect on the hospitality industry, in terms of finance. Businesses at greatest risk include hotels, the airline industry, tourist site attractions and car rental services. For instance, hotel occupancy rates are down from 70% to under 30% and staff are being sent home. Restaurants already faced a drop in patronage of 60% before the mandatory lockdown, a ripple effect of social distancing. A few international conferences scheduled for the country have also been cancelled. These have resulted in a combined loss of 1000 hotel beds.

Expected Foreign Direct Investment (FDI) flows into the country for 2020 have slowed down due to all the uncertainty.. Foreign investors are unable to travel due to border closures. This will slow down job creation.

Domestic and international trade volumes have generally reduced due to the coronavirus pandemic. This was experienced earlier, as a result of the disease hitting China (a major trading partner of Ghana). Ghanaian ports are also experiencing a lower arrival of shipping containments by at least a third, resulting in a reduction in import duties. Reductions in imported intermediate goods could significantly affect the country's manufacturing industry.

The pandemic has resulted in tight financing conditions, both in global and domestic financial markets. The slowdown in economic activities is likely to result in debt service difficulties (especially from the sectors that are hardest hit, such as aviation and hospitality) and containment measures, such as social distancing, may lead to reduced productivity and job losses.

It is currently unclear whether the cedi will gain or lose from this pandemic. A fall in import numbers augurs well for its strength, whilst the reduction in foreign exchange from lower exports, coupled with the expected flight of investor capital, weakens its stance against the major trading currencies.

The key impact of Covid-19 on the health sector:

- Considering the deficit in ventilators, hospitals will struggle to keep up with demand if the situation worsens, to a point where people develop severe and critical conditions. Compared to the situation in better-placed Italy, Ghana faces a big challenge.
- The lack of hospital beds will worsen the situation and can potentially lead to further health issues in the country.
- The lack of test kits poses limits on testing of new visitors and people already showing symptoms. This reactive attitude is blamed as a reason why the virus has spread so easily in countries like Italy and the USA.
- The outbreak has placed a huge burden on Ghana's healthcare system that was already struggling to address conditions such as tuberculosis, malaria, cholera and polio.
- The infection of large numbers of healthcare workers, who are frontline carers, may end up as intensive care patients in need of extended hospital stays.
- People suffering from other ailments may be discouraged from seeking proper medical care, resulting in worsening health condition, abuse of medication and, at worst, death.
- The high rate of importation will affect medical supplies to keep up with the pandemic.

The outbreak of the novel COVID-19 in Ghana has negatively affected the feasibility of this year's budget. The situation in Ghana is as an importer of the virus, with almost 80% of the initial confirmed cases being either foreigners or nationals arriving from other countries. Indeed, Ghana suspended all flights for two weeks from 23rd March - 5th April, 2020 to contain the spread of the new virus. Although no official numbers have been declared, this will result in the dwindling of the tourism, hospitality and related sectors in Ghana. The shutdown of businesses will also reduce financial transactions and produce an economic impasse, which will have spill-over effects to other sectors. The informal sector is the most vulnerable to these. Their inability to perform certain activities, due to the mandatory limited mobility measures, will have a telling effect on businesses and the economy as a whole. The Government's plan to bail out SMEs with a GHS 3 billion war chest will go a long way to reduce the adverse impact, if it is well implemented.

The recruitment of health workers, particularly physicians, remains a challenge and has created daunting shortages in the health sector. As health workers age and recruitment remains stagnant,

these shortages have hindered the operational capacity of many lower-level facilities, including community-based health planning and services (CHPS). The training of physicians is relatively low in relation to the country's needs.

Vulnerable groups, including the elderly and the (homeless) less privileged, must be protected from the disease and from their loss of income, with special social protection measures designed for the situation. The government should reconsider its priorities towards increasing spending on health, in both the short and medium term.

The government must intensify the creation of awareness in remote areas, to educate individuals about Covid-19 issues relating to quarantine, social distancing, use of sanitisers etc. We hope that the government holds on to its objective of limiting and stopping the importation of the virus, containing its spread, providing adequate care for the sick, limiting the impact of the virus on social and economic life, inspiring the expansion of Ghana's domestic capability and increasing the country's self-reliance.

Finally, whilst focussing on the well-being of the population, the government must also continue to evaluate the economic impact and adjust its plans accordingly, in order to contain and reduce significant impacts.

5. A framework to assess COVID-19 policy responses

COVID-19 pandemic has spread around the globe at a speed that caught governments unprepared in both developed and less developed countries. A global pandemic, caused by a little known coronavirus, resulted in a major health crisis, which quickly transformed into an unprecedented economic and social crisis. The COVID-19 pandemic is peculiar. It is rapidly contagious, resistant, lethal, knows no borders and spares no one. It hit the globe like a violent storm or hurricane, starting in China and turning into a high-impact extreme event that shocked healthcare systems, economic models, societal and human values. It is an extreme exogenous shock that, with a powerful contagious dynamic, became global and systemic¹⁰¹. Within a matter of days, governments across the globe were forced to take decisive action to save lives of people. Measures ranged from mobilising and hoarding resources, to strengthening healthcare systems, to enacting draconian confinement measures and taking unprecedented action to mitigate against the disastrous consequences of simultaneous demand/supply shocks on the real economy.

However, the uncoordinated policy response was rather diverse and unequal across the globe. Countries that have developed health infrastructure and technology, science, research and development, advanced safety net systems, robust financial capacity and respectable democratic institutions and rule of law – all components of a resilient system – are better equipped to minimise the negative consequences for themselves. Other countries, that have little of these

¹⁰¹ Ayadi (2020).

previously mentioned advances in place, are less equipped. Consequently, the probability of succumbing and/or losing control of the viral contagion, resulting in disastrous political and socio-economic consequences, is very high. It is critical to emphasise that COVID-19 spreads in waves, it is a recurring risk, hence the contagion. As was emphasised in Ayadi (2020), countries that do not succeed in finding, in good time, the optimal recipe of prevention, management and recovery, whilst mobilising financial resources, will extend the risk to themselves, their neighbours and the entire globe.

As of 15 April, 2020, the health crisis was still unfolding. In this chapter, we propose a novel framework to assess COVID-19 policy response. This framework is built on the **three mutually interactive pillar assessment matrix of policy responses**:

1. Preparedness and effectiveness of healthcare systems;
2. Completeness and timeliness of COVID-19 containment policies;
3. Comprehensiveness (and solidarity) of the socio-economic mitigation policies;

In each pillar, we define a number of assessment criteria (dimensions), monitored using several factors (indicators).

In order to assess the preparedness and effectiveness of the healthcare system, Tab. 19 outlines the following indicators: the general health capacity of the country (i.e. health expenditure, number of hospital beds, ICUs, etc.); the possibility of the country producing and/or receiving resources from abroad (i.e. doctors, funding); and the number of deaths from COVID-19, registered as of 10 April.

To examine COVID-19 containment policies, Tab. 20 reports the measures implemented by governments to contain the spreading of the contagion, emphasising the completeness and timeliness of their adoption and implementation.

To examine the economic and social mitigation measures, Tab. 21 reports the economic and social-protection measures carried out by governments. It emphasises the fiscal space, the effectiveness and promptness of their implementation and the support coming from national civil society, the business sector and the international community (solidarity principle).

The matrix is filled- in, to provide an overall view on the policy response function of the countries surveyed¹⁰².

The preparedness and the effectiveness of the healthcare systems dimension, highlights a striking inequality between countries. Different countries across the world are facing the same pandemic, because of its global nature, but under very different starting conditions (e.g. weak infrastructure,

¹⁰² As of 10 April, Information improved with updated data on COVID-19 retrieved from worldmeters.com, new data on sanitation retrieved from the WB and new policies retrieved from press releases and IMF Policy Responses to COVID-19 <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>.

low availability of medical equipment and healthcare workers and lack of testing etc). The inequality of healthcare systems affects the level of preparedness to global pandemics and the overall effectiveness for dealing with pandemics that degenerate into health crises: there are countries with insufficient initial infrastructure to face a health emergency and with poor resources to improve their capacity to better address the emergency (i.e. building new structures, imports or producing more medical equipment, hiring more medical staff and protecting them etc.). To reduce these inequalities, international and bilateral cooperation and private sector engagement become critically important. Furthermore, widely testing the population is the most effective way to control and manage the contagion, but testing capacity is low everywhere. This is due to the high cost of tests and the capacity and number of laboratories. For PPE distribution and test provision (considered the most important prevention and containment instruments), action has largely been uncoordinated. It would have been desirable to observe more engagement from international organisations (WHO in particular) in coordinating and guaranteeing the availability of equipment for everyone, particularly for the most vulnerable and poor countries.

COVID-19 containment policies have been agreed and adopted with different timings, at different stages of the contagion and with different levels of severity. Systematic awareness and public campaigns on COVID-19 as a global pandemic contagion came rather late (after 51 days) from the WHO and, consequently, government containment measures when the first cases were recorded (in China and then Italy). Nevertheless, a number of countries acted more promptly than others (such as Jordan or Morocco). Generally, the increase in the speed of contagion has been accompanied by the tightening of containment measures, which usually start with the imposition of social distancing, the prohibition of public gatherings and/or partial curfews, evolving into (full and/or partial) lockdowns. Countries applied different levels of lockdown, which we have classified as: localised lockdown, where lockdowns have been implemented only in some municipalities/cities/regions; national lockdowns, implemented in all national territories; partial lockdowns where they exclude several production activities; total lockdowns, where they only exclude strictly essential productive activities and services. The assessment matrix can help understanding of the extent to which containment measures have been effective in reducing the contagion. Beyond this, adding the timing of the progressive relaxing of confinement measures is important for managing the contagion curves. At the time of writing (10 April), it is early to provide a firm assessment, even though countries such as Italy and Spain have already shown a flattening trend of the epidemiological curve. Monitoring these indicators allows one to observe the different levels of effectiveness of the various containment policies.

Since lockdown measures negatively affect the economy, a more prepared healthcare system (pillar 1, i.e. sound infrastructure, more testing capacity, more PPE availability, more international coordination in its supply and distribution) could have resulted in less draconian containment measures and, as a result, potentially less negative socio-economic impacts.

The socio-economic mitigation policies are reported in Tab 21. Similar inequalities are evident between the countries surveyed. Draconian containment measures and the generalised health crisis provoked by the pandemic, have negatively affected economies worldwide, with shutdowns

of enterprises generating millions of unemployed people (temporarily or not). Countries with sufficient capacity in public spending and in public indebtedness (fiscal space and sustainable debt) have activated large safety nets and relaxed their financial rules and initial constraints. Though, countries with initially weak safety nets, high levels of poverty and significant informal sectors, are facing difficulties in protecting their citizens and business sectors. Once again, cooperation and solidarity from the international community, the private sector and civil society all play an important role in mitigation, particularly for the most vulnerable and poor countries.

One could have imagined that Italy and Spain would have a “good” level of preparedness, yet it proved insufficient in dealing with a health crisis of this magnitude. The number of deaths has grown very high in a short period of time but, thankfully, inferior to the number of recoveries, denoting a certain level of efficiency. Furthermore, the two countries are both able to mobilise workers and find or build new facilities. Other countries, however, have low levels of both facilities and workers. Moreover, they don’t show a great capacity for mobilising new resources. If the number of COVID-19 cases in other countries reaches the levels of Italy and Spain, their healthcare systems will rapidly collapse; hence, the importance of promptly implementing containment measures. However, containment measures have been very rigid because of the delay in implementation but also, particularly, because of the unpreparedness of countries in terms of availability of PPE. Pillar 1 of the assessment matrix reveals that reliable information about PPE availability is difficult to come by. Over the two months of the analysis, it became clearer that PPE, together with social distancing measures, are fundamental in order to prevent the spread of the virus. All countries have a lack of PPE, which they tried to solve by imports/donations from other countries and international organisations or, in some cases, requiring private enterprises to convert their production towards PPE (see Complements under Pillar 1). Unpreparedness is strongly linked to the rigidity of the containment measures implemented in the majority of countries which, in turn, is linked to the magnitude of the impact on economies.

In Italy and Spain the lack of tests and PPE led to a rapid spread of the virus; the insufficient number of workers and overcrowded facilities led to the need to implement radical measures in order to contain the circulation of the virus. Italy opted for an initial localised lockdown which was then extended to all the country. Spain imposed its lockdown to all national territories from the beginning. The decision to lockdown was taken late in both countries, by which time the number of cases was already high and around one month after the first case was registered. The South, East Mediterranean countries and Ghana began their containment measures earlier, from when the first cases were detected.

After one month of lockdown, Italy and Spain’s epidemiological curves started flattening, suggesting the relative effectiveness of their containment measures in slowing down the spread of the virus. For the other countries, we will continue monitoring the epidemiological curves.

After more than one month of lockdowns, it is evident that these policy measures are having disastrous effects on the worldwide economy. All the countries analysed in our study have weak economies, with little fiscal room to respond to this pandemic. The majority of them have high

percentages of informal workers and of people living beneath the poverty line. Nonetheless, based on the survey, two countries have started designing measures to protect informal workers (Egypt and Morocco). All countries adopted measures to relax banking rules and to help MSMEs and employees, as well as different monetary policy measures to increase liquidity. All governments started spending, using all the resources available from different funds and increasing their indebtedness. All countries are receiving support from international/regional organisations, whilst the private sector and civil society are also engaged in helping governments to enforce social protection measures. Besides, there are a number of initiatives from the private sector and local associations to help the most vulnerable people. But these initiatives might be insufficient to deal with the severity of the economic and social crisis down the road.

Overall, the **main preliminary conclusions of this assessment** are:

- There is a need for global/regional coordination of the three pillars, in order to guarantee sufficient medical equipment and medication to maximise recoveries from the disease, along with PPE and tests to prevent the uncontrolled spread of the virus;
- All countries must invest more in their healthcare systems, to strengthen preparedness levels and, hence, their resilience capacity to health risks resulting from pandemics;
- There is a link between prevention, containment and mitigation of socio-economic consequences. This link must be better examined and researched;
- Solidarity and international cooperation are crucial in Pillar 1 and Pillar 3 and coordination in Pillar 2;
- The “wait-and-see” approach, adopted by governments and international organisations, might have had a critically negative impact in the initial phase of the contagion and, therefore, on the severity of the containment measures and, hence, the subsequent socio-economic impacts;

This assessment is preliminary and these indicators will be monitored regularly. To facilitate monitoring, an [online research platform](#) was created to allow researchers and experts to collaborate. This research will attempt to provide a critical assessment of the policy response to COVID-19, to provide policy suggestions for possible future pandemics (long term objectives) and for the current mitigation of socio-economic impact (short to medium term objectives).

Table 19 - Assessment Matrix Pillar 1: Preparedness and effectiveness of healthcare systems

PREPAREDNESS AND EFFECTIVENESS OF HEALTHCARE SYSTEMS											
		North Mediterranean		South and East Mediterranean						Sub Sahara Africa	
Countries		Italy	Spain	Algeria	Egypt	Jordan	Lebanon	Morocco	Palestine	Tunisia	Ghana
DIMENSIONS	INDICATORS										
Infrastructure capacity at time of crisis	Health Expenditures/GDP	8.80% (2018)	8.9% (2018)	6.60% (2016)	4.60% (2016)	8.9% (2016)	8% (2016)	5.80% (2016)	11% (2016)	7% (2016)	4.4% (2016)
	People using safely managed sanitation services (% of population) (2017)	96.2%	96.62 %	17.69%	60.74	80.55%	21.8%	38.75%	61.24%	78.12	-
	Total Number of hospitals	1000 (2017)	466 (2017)	-	691(+ 1,157 private, 2018)	-	-	-	81 (2019)	167 (+98 private, 2016)	-
	Number beds (per 1,000 people)	3.2 (2018)	3 (2018)	1.9 (2015)	1.6 (2014)	1.4 (2015)	2.9 (2014)	1.1 (2014)	1.3 (2016)	2.3 (2015)	0.9 (2011)
	Number of ICU beds (per 1,000 people)	2.6 (2018)	2.4 (2018)	-	-	-	2,308 (total number)	-	-	5 (per 100,000 people, 2020)	-
	Number of doctors (per 1,000 people)	4 (2018)	3.9 (2018)	1.8 (2016)	0.8 (2017)	2.3 (2017)	0.1 (2017)	0.6 (2017)	2.1 (2016)	1.3 (2016)	0.2 (2017)
	Number of nurses (per 1,000 people)	6.7 (2018)	5.7 (2018)	2.2 (2016)	1.4 (2017)	3.4 (2017)	2.6 (2017)	1.1 (2017)	2.25 (2016)	2.6 (2016)	1.2 (2017)
	Mobilisation of private healthcare facilities	Yes	Yes	No	No	No	Yes	No	Yes	No	No
	Mobilization of inactive health professionals (retired; switched profession; medical students; etc.)	Yes	Yes	No	No	No	No	No	No	No	No
Mobilisation of military healthcare	Yes	Yes	Yes	No	No	No	No	No	No	No	

	services										
Capacity to extend health facilities	Building and/or finding new structures for COVID-19 patients	Yes	Yes	Yes	No	No	No	No	Yes	No	No
	Use of exceptional measures (e.g. flying patients to other countries)	Yes	No	No	No	No	No	No	No	No	No
National Procurement chain for medical equipment (*) (yes /no)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Equipment and medication availability to face the crisis	Availability of tests (10/04/2020) (Total)	853,369	355,000	3,359	25,000	17,000	13,530	7,239	16,068	10,087	37,405
	Availability of ventilators (10/04/2020)	18,961 (2017)	-	-	-	-	1,185 (86% private)	-	-	-	-
	Availability of PPE (10/04/2020) (a)	Yes	-	-	-	-	-	-	-	-	Yes
Local Initiatives to procure a cure and a vaccine (b)		Yes	Yes	-	Yes	-	-	-	-	-	-
Level of cooperation/diplomacy for healthcare response	Funding/aid by other countries/ aid by international agencies (c)	Yes	Yes	Yes	-	-	Yes	-	Yes	Yes	Yes
Number of medical staff deaths		133 (9 April)	15 (7 April)	-	-	-	-	-	-	-	-
Number of patients deaths	Number, as of 10 April 2020	18,279	15,843	256	135	7	20	107	25	2	6
Number of patients recovered	(as of 10 April 2020)	28,470	55,668	405	384	170	76	122	25	45	4
The number of deaths > to number of patients in severe critical conditions	Number of critically ill, as of 10 April 2020	Yes (3,605)	Yes (7,371)	Yes (46)	-	Yes (5)	No (28)	Yes (1)	No (78)	-	Yes (2)

Source: Information and data retrieved from the surveys in this study, with updated data on COVID-19 retrieved from worldmeters.com, data on sanitation retrieved from WB, press sources, articles, institution's official website, and IMF Policy Responses to COVID-19 <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19> (consulted between March 15 and April 13, 2020)

(*) Is considered as the capacity to produce but also import medical goods, to use diplomacy for receive aids and banning export to guarantee national supply. WHO is stressing the alarming shortage of PPE supplies and is trying to coordinate initiatives with other international organisations to enhance global supply. The World Economic Forum launched the COVID-19 Action Platform to galvanise the global business community into collective action and. under this, the Pandemic Supply Chain Network for the creation and management of a network allowing WHO and private sector partners to access any supply chain functionality and assets from end-to-end, anywhere in the world at any scale

Complements under Pillar 1 by country¹⁰³

Preparedness and effectiveness of healthcare systems -more information on indicators by country	
(a) PPEs and medical equipment availability	
Italy	78 million masks distributed from the beginning of March 2020 (import + national production); EC and MS are working to assess the available stock of PPE in the EU, the production capacity and anticipated needs
Spain	EC and MS are working to assess the available stock of PPE in the EU, the production capacity and anticipated needs; national production of ventilators
Algeria	Imported 8.5 million three-ply surgical masks and 100,000 filter masks (FFP2) for doctors (5 April 2020)
Egypt	Long Live Egypt Fund has placed 1,000 fluid pumps and 200 respirators at the disposal of the state in its fight against the deadly COVID-19
Ghana	The government distributed 17,000 overalls, 350,000 masks, 17,000 goggles, 2,400 non-contact thermometers, 350,000 gloves, 25,000 sanitisers, 30,000 tests kits. This is ongoing for healthcare personnel and those undertaking contact tracing and testing (as of 28 March 2020)
(b) Local initiatives to procure cures and vaccines	
Italy	Use of transfusion of plasma antibodies of cured patients; vaccine in experimentation in Naples.
Spain	Large-scale study of hydroxychloroquine and anti-retrovirals to prevent COVID-19 in health workers
Egypt	Treatment protocol under approval from Ministry of Health and Population, based on the use of two drugs available on the local market, 6 April, El Cairo University
(c) Funding/aid by other countries/ aid by international agencies	
Italy	Albania, Cuba, Russia, China and Tunisia sent doctors and medical equipment; other medical aid came from Egypt; Sogin donates 40,000 masks to Civil Protection RescUE see Box 1
Spain	Jack Ma Yi Foundation and Alibaba Foundation (China) sent 500,000 masks (17 March); 25 tons of medical equipment from Turkey (1 April); RescUE see Box 1.

¹⁰³ Source: Information and data retrieved from the surveys in this study, articles, institution's official website and IMF Policy Responses to COVID-19 <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19> (consulted between March 15 and April 13, 2020)

Algeria	Medical aid from China State Construction Engineering Corporation (500,000 surgical masks, 50,000 N95 masks, 2,000 protecting clothing for doctors, respirators etc.)
Lebanon	Turkish Cooperation Agency (TIKA) sent masks, sterilisation machines for medical goggles and gloves (aid); IOM provided a range of protective equipment for both airport security and the clinic at the airport + 220 sets of Tyvek 1422A protective clothing to the country's main referral public health facility at the Rafic Hariri University Hospital (RHUH);
Palestine	China-based genome sequencing company (BGI) and Israeli medical technology company AID Genomics announced a partnership to build an emergency testing laboratory in Gaza (will provide 3,000 COVID-19 tests daily for Gaza residents)
Tunisia	20000 masks, 1000 protection glasses, 1500 diagnostic reagents Received from China (aid) (as of 28 March 2020); Turkish Cooperation Agency (TIKA) sent medical screening device to hospitals (aid) and is working with Tunisian National Crafts Office to support national production of PPE.
Ghana	Medical aid from China

Table 20 - Assessment Matrix Pillar 2: COVID-19 containment policies

COVID-19 IN THE MEDITERRANEAN AND AFRICA

COVID-19 CONTAINMENT POLICIES											
		North Mediterranean		South and East Mediterranean							Sub Sahara Africa
Countries		Italy	Spain	Algeria	Egypt	Jordan	Lebanon	Morocco	Palestine	Tunisia	Ghana
DIMENSION	INDICATORS										
Timing in implementing containment measures (*)	Days from the first infection detected	+ 25 days (LL) +40 days (NL)	+ 44 days	+ 27 days	+ 41 days	+ 13 days	+ 23 days	+21 days	+ 13 days (PL), +17 days (TL)	+ 10 days (PL), + 20 days (TL)	+ 14 days
	Days from WHO PHEIC declaration (30-Jan)	+24 days (LL) +39 days (NL)	+ 44 days	+ 53 days	+ 55 days	+ 45 days	+ 45 days	+53 days	+48 days (PL), +52 days (TL)	+42 days (PL), +52 days (TL)	+ 55 days
	Days from WHO declaration global pandemic (11-Mar)	- 17 days (LL), -2 days (NL)	+ 3 days	+ 12 days	+ 14 days	+4 days	- 4 days	+ 12 days	+7 days (PL) +11 days (TL)	+1 days (PL), +11 days (TL)	+ 14 days
Prevention Measures	Awareness campaigns by governments	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Transparency and official disclosure of COVID-19 situation (key data publically available officially) from the first day of the detection of the first infection case	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Prohibition of gathering and events	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Mandatory Quarantines	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Airports lockdown	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes	Yes
	Maritime lockdown	Yes	Yes	Yes	Yes	Yes	-	Yes	-	Yes	Yes
Severity/enforce ment measures of lockdown and total confinement	Social distancing (SD) / curfew (C)	SD (9 March)	SD (15 March)	SD /C (23 March)	SD /C (23 March)	SD /C (20 March)	SD (1 March)	SD (15 March)	SD/C (18 March)	SD (12 March)	SD (30 March)
	Lockdown (Localised (LL)/National (NL); Partial	NL/ TL	NL/TL	LL/PL	NL/TL	NL/TL	NL/TL	NL/PL	NL/TL	NL/TL	LL/PL

	(PL)/Total (TL) (last one implemented, as of 10 April)											
	Government officials following the containment rules (assessed by whether ministers and PM operating from home)	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Duration of the lockdown (as of 10 April 2020)	Days of lockdown (Localised (LL)/National (NL); Partial (PL)/Total (TL))	47 days (LL) 32 days (NN)	27 days	18 days	16 days	26 days	26 days	18 days	23(PL) 19(TL) days	29(PL), 19(TL) days	16 days	
	Extensions (two weeks per period of lockdown)	2	2	1	1	1	1	-without ending date	1	1	0	
Increase of testing per million after one period lockdown	Percentage increase in a specified period during the lockdown	83% (53,826, 324,44) (9 March-24March)	0% (7,593) (4-10 April)	0% (77) (4-10 April)	0% (244) (4-10 April)	99% (23, 1666) (4-10 April)	28% (1322, 1835) (4-10 April)	30% (117, 166) (4-10 April)	53% (1481, 3150) (4-10April)	32% (549, 810) (4-10April)	0% (388) (10April)	
Level of coordination	Central state with region /autonomies	Yes	Yes	Yes	-	Yes	Yes	-	-	-	Yes	
	Different authorities with different competences	Yes	Yes	Yes	-	Yes	Yes	Yes	-	Yes	Yes	
	Public-private dimension	Yes	Yes	Yes	-	Yes	Yes	No	No	Yes	Yes	
National Committee with experts to advise the government		Yes	Yes	No	No	No	Yes	No	Yes	No	No	
Effectiveness of containment (as of 10 April)	Contagion epidemiological curve trend and days of lockdown after which trend is changing	Increase, started flattening (28 - 30days)	Increase, started flattening (23 -26 days)	Increase	Increase	Increase	Increase	Increase	Increase	Increase	Increase	

Source: Information and data retrieved from the surveys in this study, with updated data on COVID-19 retrieved from worldmeters.com, data on sanitation retrieved from WB, press sources, articles, institution's official website, and IMF Policy Responses to COVID-19 <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>

(consulted between March 15 and April 13, 2020)

(*) As for lockdowns different countries implemented different types of lockdown at different stage. Therefore, you will find: (LL) for localised lockdown -where lockdown has been implemented only in some municipalities/cities/regions-; (NL) for lockdown implemented in all national territory; (PL) for partial lockdown, where the lockdown excluded different production activities; (TL) for total lockdown, where lockdown excluded only strictly essential productive activities and services. As for the calculation of the total period of lockdown, for countries having implemented different stages of lockdown has been considered the first one.

Table 21 - Assessment Matrix Pillar 3: Socio-economic mitigation policies

SOCIO-ECONOMIC MITIGATION POLICIES				
		North	South and East Mediterranean	Sub

		Mediterranean									Sahara Africa
Countries		Italy	Spain	Algeria	Egypt	Jordan	Lebanon	Morocco	Palestine	Tunisia	Ghana
DIMENSIONS	INDICATORS										
Timing of socio-economic mitigation policies	Days from the first lockdown	+ 23 days	- 4 days	- 8 days	-1 day	+ 3 days	+ 9 days	- 8 days	+ 4 days	+ 9 days	+ 5 days
Banking rules relaxation (a)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Monetary /fiscal; policy instruments (b)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Exchange rate (c)		No	No	No	No	No	No	Yes	No	No	No
Social protection /safety net measures (d)		Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Targeted measures to support workers in informal sector (e)		No	No	No	Yes	No	No	Yes	No	No	No
Targeted measures to support MSMEs, autonomous and freelance workers (f)		Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes
Sectoral support / protection	Medical (g)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Agriculture and Food Security (h)	Yes	Yes	Yes	Yes	No	No	No	No	No	No
	Tourism (i)	Yes	Yes	No	Yes	No	No	No	No	No	No
	Transport (j)	Yes	Yes	No	No	No	No	No	No	No	No
Impact Studies by government		No (*)	No (*)	No	No	No	No	No	No	No	No(*)
International /Regional initiatives impacting the countries (k)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Funding by government / private sector (l)		Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Unemployment		9.8% (2019)	13.9% (2019)	11.70% (2019)	10.76% (2019)	14.71% (2019)	6.22% (2019)	9.01% (2019)	26.16% (2019)	15% (2019)	4.33% (2019)
Informal employment (% tot non-agri)		-	-		52.89% (2017)	-	-	-	50.76 (2018)	-	83.18 (2015)
Poverty headcount ratio (\$1.9,2011 PPP)		1.40 (2017)	0.7% (2017)	5.5% (2011)	32.5% (2017)	14.4% (2010)	27.4% (2012)	4.8% (2013)	29.2% (2016)	15.2% (2015)	23.4% (2016)
Total population (million, 2018)		60.5	46.8	42.3	98.5	9.9	6.8	36	4.6	11.6	29.8

Source: Information and data retrieved from the surveys in this study, with updated data on COVID-19 retrieved from worldmeters.com, data on sanitation retrieved from WB, press sources, articles, institution's official website and IMF Policy Responses to COVID-19 <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19> (consulted between March 15 and April 13, 2020),

(*As for Italy - M. Vulpiani et al. Deloitte Consultancy (2020), COVID-19 Economic Impact in Italy and - Bank of Italy studies and analysis – see <https://www.bancaditalia.it/covid-19/index.html>; As for Spain - Bain & Company Consultancy and EY Consultancy (2020), Impacto de Covid-19 en la Hostelería en España; As for Ghana - KPMG Consultancy (2020), The economic impact and implications of COVID-19 – The Ghanaian Perspective

Complements on Pillar 3 by country¹⁰⁴

Socio-economic mitigation - main measures by indicator by country	
(a) Banking Rules Relaxation	
Italy	Suspension of mortgages and loan repayment
Spain	Restructuration and resolution of credit institutions
Algeria	Increase bank financing capacities in favour of economic companies impacted by COVID-19; easing of solvency liquidity and NPLs ratio for banks
Egypt	Postponement of loan payments for 6 months; support; more flexible judicial action and black-listing procedure against defaulting retail business clients; raising of the limit for electronic payment via mobile phones; Microlenders have been instructed to also consider delays on a case-by-case basis, of up to 50 percent of the value of monthly instalments for struggling clients; relaxation of regulations on the obtainment of detailed info about borrowers

¹⁰⁴ Source: Information and data retrieved from the surveys in this study, articles, institution's official website and IMF Policy Responses to COVID-19 <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19> (consulted between March 15 and April 13, 2020)

Jordan	Restructuring of the loans of individuals and companies, especially MSEs; reducing the company's programme commissions and raising the insurance coverage rate for the local sales guarantee programme
Lebanon	Five-year, zero percent interest rate loans in Lebanese Pounds and in dollars to consumers
Morocco	Moratorium on reimbursement of bank credits for the benefit of business; employees affiliated to National Social Security Fund (CNSS) will benefit from postponement of repayment of bank loans; gov. will guarantee 95% of banks' new short-term loans to SMEs through Central Guarantee Fund
Palestine	Palestinian Monetary Authority instructed banks to reschedule payments of personal and SMEs loans instalment
Tunisia	Bank credit payments for salaries with low wages are postponed; financial institutions have to defer loan instalments without penalties;
Ghana	2% reduction of bank interest rates; easing of mobile wallet transactions
(b) Monetary/fiscal policy instruments	
Italy	EUR 5.1 billion to support credit supply + EUR 400 billion for additional state guarantees for firms and self-employed (+ ECB liquidity to banks and maintaining low interest rates see Box1)
Spain	ECB liquidity to banks and maintaining low interest rates see Box1); EUR 100 billion extension of government loan guarantees for firms and self-employed, EUR 2 billion public guarantees for exporters and guarantees for loan maturity extensions to farmers using special 2017 drought credit lines; special credit line for tourism sector
Algeria	CB lowered the reserve requirement ratio from 10 percent to 8 percent and its main policy rate by 25 basis point- 3.25%
Egypt	CB lowered interest rates by 3%; increased credit limit of local banks with foreign banks; CB launched an EGP 20 billion stock-purchase programme
Jordan	CB reduced the compulsory reserve from 7% to 5%; price ceilings on essential products
Lebanon	CB reduced most policy rates by 50 basis points; JD 550 million additional liquidity to the banks
Morocco	CB reduced policy rate by 25 bdps to 2.0% ; expanded the range of collateral accepted for repos and credit guarantees to include public and private debt instruments
Palestine	Authorities decided to regulate prices and control the distribution channels of facemasks and hydro alcoholic gels
Tunisia	CB lowered its key interest rate from 7.75% to 6.75% and eased credit risk measures; mechanism for the state to cover the difference between the policy rate and the effective interest rate on investment loans within a cap of 3 percent
Ghana	Policy rate cut by 150 points to 14.5%; BOG to allow for government borrowing from BOG beyond the stimulated threshold in the event of tight domestic financing market conditions; interest payment on non-marketable domestic bonds held by public institutions has been postponed; gov. will draw US\$ 218 million from the stabilisation fund to reduce financing needs
(c) Exchange rate	
Morocco	As part of a gradual and orderly transition to a more flexible exchange rate regime, the authorities broadened the dirham's fluctuation band to +/- 5 percent (from

	+/- 2.5 percent) on March 6, 2020
Tunisia	Pre-announced purchases to boost reserves or to smooth excessive and disruptive short-term volatility
(d) Social protection / safety net measures	
Italy	EUR 10.3 billion to preserve jobs and support income of laid-off workers (Strict rules to prohibit lay-offs, bonuses for poor families, bonuses for families with children; suspension of bill payments; unemployment benefits
Spain	Strict rules to prohibit lay-offs; Extraordinary Social Fund for financing basic social services; suspension of bill payments; EUR 430 temporary monthly allowance for temporary workers whose contract expires during the emergency; EUR 300 million funds for providing assistance to dependants; EUR 25 million to autonomous communities funding meals for children affected by the school closure; automatic moratorium on rent payment for vulnerable tenants
Algeria	Exceptional paid leave -at least 50%- for all employees in gov admin. And local and regional authorities for which the physical presence in the workplace is not considered to be essential for guarantee the continuity of services - with exceptions ; declaration and payment of income taxes postponed
Egypt	More funds to support 60 thousand families through cash transfer programme; social security scheme enlarged for woman >65 age; EGP 50 billion allocated for real estate financing for middle-income people through banks; exceptional allowance of EGP 500 for irregular workers that are registered in the databases of the manpower directorates; increase by 14% of pensions
Jordan	Aid aimed at helping daily paid workers; halt of work as an official vacation obliged the private sector employers to continue paying wages and salaries; postponement, until the end of the year of the collection of sales tax on all domestic sectors, and imports related to health, and the supply of medicines
Morocco	Employees affiliated to National Social Security Fund (CNSS) will benefit from a monthly lump-sum allowance of MAD 2,000 net; since April 2020 households which do not benefit from RAMED health card (medical assistance scheme for the benefit of the poor) will receive cash support;
Palestine	Price stabilisation by formal and informal consumer protection organisations; the Palestinian National Authority PNA social protection system extended its provisions from 85,000 to 120,000 affected families; financial support to poor families and vulnerable population; funds to workers in technical unemployment; PA cancelled penalties for late submission of tax returns
Tunisia	Tax payment postponed; social contribution postponed; paid leave for public servants with children; waiving of late penalties for electricity bills; cash transfers for low income households, disabled and homeless people (150 TND million). The plan also includes support for those who will be on temporary unemployment because of the COVID19 shock (300 TND million)
Ghana	Tax waivers on selected Third-Tier Pension withdrawals; deduction of contributions and donations towards COVID-19 as allowable expense for tax purposes
(e) Targeted measures to support workers in informal sector	
Egypt	EGP 500 a month for three months for workers not registered in national social security
Morocco	Non RAMED workers working in the informal sector will receive financial aid (from 78 to 117 dollars according to their family size)
(f) Targeted measures to support SMEs, autonomous and freelance workers	
Italy	EUR 6.4 billion for compensation for self-employed; temporary suspension of withholding payments, social security and welfare contributions and premiums for compulsory insurance; worker bonuses; loan guarantee from the State to companies of all sizes

Spain	EUR 14 billion tax payment deferrals for small and medium enterprises and self-employed for six months; funding programme to facilitate procurement of material and equipment for SMEs via specific subventions and loans; prioritisation of temporary suspension of contracts and reduction of working hours; more flexibility for workers to access savings from their pension plans
Algeria	Declaration and payment of income taxes postponed-except for large enterprises
Egypt	Government contribution in payment of duties; reduction of natural gas price; subsidy pay-out for exporters has been stepped up
Jordan	Partial postponement of the surrendering of sales tax proceeds and early payments of employee salaries; reduction of the social security subscription ratio for institutions and employees
Morocco	Suspension of the social security payment
Tunisia	Investment fund to support companies affected by the crisis 700MDT; Credit Guarantee Fund 500MDT; Factories producing for export only are allowed to sell 30 to 50% of their production locally
Ghana	Facility of GHS 3 billion to support industry - especially pharmaceutical, hospitality, service and manufacturing sectors-;GHS 1 billion credit to target assistance to households and businesses, particularly SMEs
(g) Sectoral support / protection – medical	
Italy	Funds to strength healthcare system and civil protection – EUR 3.2 billion-; employment of new healthcare staff; purchase more beds; subsidised loans or non-repayable grants to manufacturers of medical devices; export outside EU has to be approved by all MS
Spain	Budget support for Ministry of Health -EUR 1 billion-; transfer to regional health services EUR 2.8 billion; EUR 110 million R&D for drugs and vaccines related to COVID-19; export outside EU has to be approved by all MS
Algeria	Monthly bonus to the workers mobilised for hygiene, sanitation and disinfection activities; suspension of export of some medical and hygiene items
Egypt	EGP 188 million to the Ministry of Health, out of the hundred billion approved by the President to deal with the COVID-19;EGP 3.8 billion for provision of urgent and necessary medical supplies, provide bonuses for medical staff working in quarantine hospitals and labs and support medical professionals with 75% allowance over the wage; Exports of medical masks and rubbing alcohol banned
Jordan	The government has committed to provide necessary healthcare to all Jordanians notwithstanding the type of medical insurance they have, if any
Lebanon	National strategy to ensure sufficient stock of property, plant and equipment -with focus on healthcare workers - and to support referral laboratories by the Ministry of health and partners with the needed testing kits and PPE
Morocco	Authorities regulate prices and control the distribution channels of facemasks and hydroalcoholic gels; Morocco started manufacturing its own ventilators and oxygen masks using locally supplied material and the government allocated 200 million dollars to buy medical equipment.
Palestine	Recruitment of 51 doctors, medical specialists and general practitioners and further purchase of testing toolkits, quarantine facilities, respirators, masks, medicines, disinfectants
Tunisia	TND 100 million fund for the acquisition of equipment for public hospitals
Ghana	Special Life insurance cover for 10,000 health personnel and allied professionals; recruitment of 1,000 community health workers and 1,000 volunteers to help in

	this endeavour
(h) Sectoral support / protection - agriculture and food security	
Italy	Social support measures, interventions to guarantee the liquidity of agricultural enterprises; measures for the promotion of the agri-food sector abroad, as well as the increase in the Fund for the distribution of foodstuffs; EU decided seasonal agricultural workers can easily cross borders; EC loans
Spain	Suspension of time limits in administrative procedures related to the Common Agricultural Policy (CAP) and the fishing sector; EU decided seasonal agricultural workers can easily cross borders; EC loans
Algeria	Suspension of export of some food items
Egypt	Moratorium on the tax law on agricultural land extended for 2 years; suspension of export of all types of vegetables for a period of 3 month and is planned to start by increasing strategic food reserves to meet domestic demand
(i) Sectoral support / protection – tourism	
Italy	Postponement of payments, management of vouchers and travel refunds, measures for protecting seasonal workers
Spain	Extension of social security bonuses for discontinued fixed contracts
Egypt	Tourism financing initiative to guarantee the continued operation of hotels and financing of their current expenses by an amount of EGP 50 billion
(j) Sectoral support / protection - transport	
Italy	Suspension of withholding taxes, social security and welfare contributions, together with tax obligations; deployment of funds for transportation companies
Spain	Extension of the validity of certificates; reduction working hours
(k) International/Regional initiatives impacting the countries	
Italy	EU initiatives, see box 1
Spain	EU initiatives, see box 1
Algeria	OPEC and Non-OPEC countries decide decrease of oil production to stabilise the price (Algerian production will decrease by 200,000 barrels per day for May and June 2020) ; EU Team Europe Package – see Box2;
Egypt	WB Corona Emergency Support; financial aid from EU for US\$96 million (EU Team Europe Package – see Box2)
Jordan	IMF four-year plan initial tranche of US\$140million was disbursed on March 25th (should be revised because of the COVID-19)
Lebanon	WB has approved the reallocation of US\$40 million from an existing project to increase the capacity of Lebanon’s healthcare system to test and treat COVID-19; EU Team Europe Package – see Box2; Turkish Cooperation and Coordination Agency (TIKA) sent aid packages for families in need

Morocco	Purchased US\$ 3 billion from IMF Precautionary and Liquidity Line (PLL) to cope with COVID-19 emergency; EU Team Europe Package – see Box2
Palestine	WB US\$5 million emergency operation addressing COVID-19 pandemic + US\$800,000 support to Palestinian Ministry of Health under Health System Resiliency Strengthening Project; EU announced US\$77 millions financial aid package (EU Team Europe Package – see Box2)
Tunisia	IMF emergency assistance loan to support pro-active policy response to the Covid-19 pandemic US\$745million (SRD 545.2 million); EU Team Europe Package (announced EUR 250 million) – see Box2
Ghana	IMF Ghana Emergency Preparedness Project (EPRP) US\$100 million to assist the country in tackling the COVID-19 pandemic; UBA donated US\$350,000; IMF disbursed EU\$1 billion under Rapid Credit Facility (RCF)
(I) Funding by government/ private sector	
Italy	The Bank of Italy has launched a programme of extraordinary contributions destined for different areas of the national territory, allocating an overall sum of EUR 55 million; other financial institutions provided donations to healthcare structures; Civil Protection Fund receive donations from private citizens; Edison provided EUR 1,5 million for a new hospital; Vegè donated EUR 1,5 million to Red Cross; Amazon donated EUR 3,5 million to Red Cross and other NGO; EUR 150,000 from Philips Foundation went to Civil Protection; Nastro Azzurro launched a fundraising campaign to help workers in bars and similar activities closed during the emergency;
Spain	Web page provided by the municipality of Madrid to collect donations; the Government opened an account at the Bank of Spain to centralise donations from companies and individuals to the State to contribute to the health crisis; other donation can be done through some supermarkets and Banks. From large textiles and banks to small shoe factories in Alicante, they have provided the healthcare system with protective material, logistical support and financial resources
Jordan	Prime Minister Omar Razzaz established coronavirus relief fund under the name "Himmat Watan" to which local and foreign donations will be deposited to eradicate COVID-19; many employees have deducted sums from their monthly wages and donated them to low-income families
Lebanon	Lebanese Food Bank, thanks to private donations, is distributing food boxes to vulnerable people; National Solidarity Fund accepting in-kind and monetary donations;
Morocco	Authorities created a special fund dedicated to the management of the pandemic (2.7% of GDP) financed by the government and by voluntary contribution from public and private entities which will be tax deductible; INSAF NGO distributes package food to single mothers; Trade unions in Morocco, including Education International member Syndicat National de l'Éducation - Confédération Démocratique du Travail (SNE-CDT), decided to encourage workers and educators to donate three days' worth of wages over the next three months to the newly established COVID-19 solidarity fund
Palestine	Federation of Unions of Palestinian University Professors and Employees (FUPUPE) decided to encourage its members to donate wages for one working day to unemployed and vulnerable families
Tunisia	Trade Union (UGTT) has pledged 100,000 TND towards a fund to combat the coronavirus and support workers who have lost income due to the virus
Ghana	Agricultural Development Bank of Ghana (ADB) donated US\$181,000 and Newmont Ghana fund US\$100,000 to contribute to the government's plan to eradicate COVID-19

Box 1 - European Union Response for EU countries

Box 1. European Union Response for the EU countries

- **Coronavirus Response Investment Initiative:** 1 April, allows the use of EUR 37 billion under cohesion policy to address the consequences of the COVID-19 crises and broadens the Solidarity Fund scope to include major health crises – MS will have access to financial support up to EUR 800 million in 2020
- **EU and Euro Area safety nets:** under discussion - **Pandemic Crisis Support** - based on the existing ECCL precautionary credit line and adjusted in light of this specific challenge - a credit line to support domestic financing of direct and indirect healthcare, cure and prevention related costs due to the COVID 19 crisis for Euro Area Member States affected
- **European Central Bank:** initiatives to support liquidity and financing conditions (provided monetary policy support through EUR 120 billion under the **Asset Purchase Programmes – APP-**; 18 March launched EUR 750 billion under the **Pandemic Emergency Purchase Programme – PEPP** - to expand the range of eligible assets under the Corporate Sector Purchase Programme – CSPP - and relax collateral standards for Eurosystem refinancing operations - MROs, LTROs, TLTROs; allowed significant institutions to operate temporarily below Pillar 2 Guidance, the capital conservation buffer and liquidity coverage ratio – LCR -; temporal flexibility in the classification requirements and expectations on loss provisioning for non-performing loans – NPLs - covered by public guarantees and COVID-19 moratoria; asked banks to not pay dividends for 2019-2020 and use conserved capital to support households, SMEs and corporate borrowers)
- **European Investment Bank** creates **pan-European guarantee fund:** in total EUR 25 billion, of which EUR 200 billion will finance companies, focussing on SMEs
- **Flexibility in EU rules and in EU budget:** 23 March, Ministers of Finance and Commission decided for the application of the general escape clause of EU fiscal framework; will be allowed transfers between funds, region and policy objectives, abandoning national co-financing requirements and supporting vulnerable members of society
- **Recovery Fund:** under discussion - fund for supporting recovery through EU budget allocation in most affected MS programme to kick-start the economy
- **RescEU initiative:** EC direct support to MS' healthcare system matching EUR 3 billion from MS and EUR 3 billion from EU budget, for coordination in production and distribution of PPE, ventilators, etc.
- **SURE, European Commission:** 2 April, proposal for a temporary loan-based instrument for financial assistance to protect workers and jobs

Source: Compilation with Information retrieved from the surveys in this study, articles, institution's official website and IMF Policy Responses to COVID-19
<https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>
 (consulted between March 15 and April 13, 2020)

Box 2 - International/Regional Organisation Responses

Box 2. International/Regional Organisations Responses

- **African Development Bank Group (AfDB)** will provide up to US\$10 billion to governments and private sector under COVID-19 Response Facility
- **Africa Centre for Disease Control and Prevention** established **Africa Task Force for Novel Coronavirus (AFCOR)** to coordinate preparedness and response across the continent.
- **European Bank for Reconstruction and Development (EBRD)** provides **Solidarity Package** to support economies under pressure from the pandemic, initial EUR 1 billion - 23 March - will be enlarged and there will be restructuring of existing loan adjusted repayment schedules, collateral, interest rates and fee structures, and will consider ability to disburse in local currency or convert existing facilities into local currency)
- **G20** proposed an action plan to tackle the COVID-19 emergency and avoid an emerging market debt crisis; decided a time-bound suspension of debt service payments for the poorest countries that request forbearance (from May 1 to end 2021, possible extension)
- **International Monetary Fund (IMF)** provide emergency financial assistance – loans - to member countries without the need to have a full-fledged programme in place through **Rapid Credit Facility** - RCF, US\$10 billion available to low-income countries - and **Rapid Financing Instrument** - RFI, US\$40 billion available to emerging markets); provides grants for debit relief through **Catastrophe Containment and Relief Trust**; approved **Immediate Debt Relief** for 25 countries
- **Team Europe Package** (resources combined from EU, MS, EBRD, EFSD, EUR 20 billion for helping most vulnerable countries - in most vulnerable countries in Africa and the EU's neighbourhood , the Western Balkans, the Eastern Partner countries, the Middle East and North Africa, parts of Asia and the Pacific, Latin America and the Caribbean - to strengthen health, water and sanitation systems and to mitigate social economic consequences
- **World Bank (WB)** emergency financing: initial group of **projects** in 25 countries for US\$1.9 billion for pandemic response and recovery, US\$8 billion from International Finance Corporation (IFC) for helping private sector, US\$6 billion from Multilateral Investment Guarantee Agency (MIGA) for purchasing urgent medical equipment.
- **World Health Organisation (WHO) and UNICEF** launched COVID-19 Solidarity Response Fund powered by United Nations Foundation and Swiss Philanthropy Foundation, to facilitate the support of the WHO Strategic Preparedness and Response Plan (UNICEF initially flow US\$ 127 million)

Source: Compilation with Information retrieved from the surveys in this study, articles, institution's official website and IMF Policy Responses to COVID-19 <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19> (consulted between March 15 and April 13, 2020)

6. Conclusion and Way Forward

The COVID-19 global pandemic has shown the world that no governments from either developed or developing nations were ready to prevent or to manage such an abrupt external shock. The viral contagion hit China, followed by Europe and carried on to the South and East Mediterranean, Africa and other parts of the world.

From the start of the pandemic in China (first case recorded on January 10th), the World Health Organisation (WHO) has been following the outbreak situation via its website¹⁰⁵ and providing regular (daily) updates and recommendations from 21st January to the world's governments, in order for them to prepare for and to mitigate the health crisis. On March 11th, in its 51st report, the WHO Director General declared COVID-19 as a global pandemic and expressed concerns about the alarming levels of severity and inaction of governments. The increasing number of infection cases, of deaths and those who have recovered are known and tracked daily, but less is known about the number of people who have become infected and show no or only moderate symptoms. Largely, there was no widespread testing¹⁰⁶ at the beginning of the pandemic and this lack of testing has continued until this date. In developed countries, testing is relatively more accessible and affordable than in developing countries. The lack of widespread testing and the timely full disclosure about the prevalence of the virus make the identification of infected populations less accurate, resulting in policy responses being less effective during the management of the health crisis and the post COVID-19 recovery period.

To contain the viral contagion, governments adopted preventive and complete or partial confinement measures, ranging from awareness campaigns, COVID-19 information disclosure, travel restrictions, mandatory quarantine, lockdown and social distancing. They also opted for progressive virus sample testing of populations and a few considered issuing immunity certificates or COVID-19 passports for those who recovered from the disease and acquired immunity^{107,108}. The prevalence of testing and the timing, implementation and enforcement of the confinement policy decisions were essential to understand and to limit the contagion and to reduce the pressure on national healthcare systems and their effectiveness in saving people's lives. Moreover, the capacity of national healthcare sectors, including the existing infrastructure and its immediate potential extension to face the health crisis, the quick access to and coverage of testing, equipment (such as ventilators), garments (such as masks and medical gloves), medication (based on available agreed medical protocols) and medical staff, the capability to precisely diagnose asymptomatic, moderate or severe cases together with the effectiveness of treatment, are all determining factors in containing and managing the health crisis.

¹⁰⁵ <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

¹⁰⁶ <https://www.statista.com/statistics/1104645/covid19-testing-rate-select-countries-worldwide/>

¹⁰⁷ Germany is leading in the number of tests world-wide; 16 tests per thousand population, followed by Austria (13,7) and Italy (13,6), Data for 08 April 2020 from Statista.

¹⁰⁸ Germany and the UK are looking at respectively issuing immunity certificates and COVID-19 passports . Italy and others are examining these ideas.

The uncertainty surrounding the virus and its suppression, the undefined timeframe potentially needed (12-18 months) to deliver effective treatments¹⁰⁹ and vaccines and the consequences of the extensions of the period of lockdown and confinement (increased by up to three times in Italy and Spain, for instance) and the absence of a clear strategy on the return to “normality” post lockdown without risking entering another infectious wave, together with the global nature of the COVID-19 pandemic, have put undue pressure on economies and financial markets world-wide.

The COVID-19 global pandemic has tested the capacity of our systems resilience to respond to high-impact shocks and to adapt to emerging transitions (see Ayadi (2020)). This shock has proved to be challenging and costly to contain and to manage with uncoordinated and poorly synchronised national policies. Indeed, containing the disease with draconian lockdowns and restrictions on mobility measures have been the preferred options for saving lives - but at a high financial and socio-economic cost and, seemingly, without considering the global nature of this crisis. The G20 leaders and international organisations have mobilised several USD trillions to mitigate the economic and social consequences of the health crisis and the draconian containment measures. In several countries in Europe, during the month of April, containment policies have been progressively lifted to ease the pressure on the economic activity. It remains to be seen, however, whether the timing and effectiveness of these policies are adequate

If these policies (containment and mitigation) had been different (timing and level of preparedness), would they have been more effective in saving lives and less costly economically? Should policies have been coordinated and synchronised globally (or regionally) to leverage on the experiences of countries (and regions) that were hit first? Possibly, but certainly with more global/regional/national preparedness and coordination, in terms of more reliable information systems, sounder healthcare systems, timely widespread, effective and speedy testing capabilities (critical for information reliability and effectiveness of policy measures), the availability and affordability of medical equipment and medication, effective protection of medical staff, speed and accessibility of research and development and more knowledge about viral infections, their behaviours, and treatment and vaccines to better predict and manage global pandemics.

In this study, we provide a comprehensive overview on the evolution of the viral contagion in the Mediterranean and Africa, whilst surveying the policy responses in ten countries in these geographies. We propose a three mutually interactive pillar assessment matrix of the policy responses. The three pillars are:

1. Preparedness and effectiveness of healthcare systems;
2. Completeness and timeliness of COVID-19 containment policies;
3. Comprehensiveness (and solidarity) of the socio-economic mitigation policies;

From a preliminary analysis we can provide some consideration on the assessment, based on the ten countries surveyed. First, the level of preparedness of healthcare systems is low in all countries surveyed.

¹⁰⁹ A number of medical protocols (e.g. the anti-malaria drug Hydroxychloroquine) have been used despite little evidence regarding their effectiveness.

Second, all countries have implemented socioeconomic measures promptly, recognising the critical impact of lockdown on their economies. The main area of intervention is monetary policy measures to increase liquidity and fiscal alleviation, with particular emphasis on employers and employees in MSMEs. All countries should further enhance their support for the most vulnerable, such as occasional/ informal workers, those most affected by lockdowns, particularly countries in which the percentage of these categories is high.

Third, lockdown policy seems to be effective in reducing the spreading of the virus, when observing the trends in Italy and Spain. The containment of the population led to the flattening of the contagion curve. Nevertheless, once a sort of “steady state” of the epidemiologic curve is reached, if the healthcare system has not been strengthened and PPE has not been widely available, the risk of a new outbreak is high and, therefore, lockdown measures cannot be relaxed. However, what is the socio economic impact of extending lockdown periods, particularly on the poorest and most vulnerable (e.g. mental health of ageing population and disabled, the informal workers etc)?

For the way forward, we will continue updating the assessment matrix, in order to provide a better understanding of the capacity and the effectiveness of policy response to COVID-19 in the countries surveyed. We will integrate the matrix with other countries, to compare different levels of severity in their containment measures, different timings in responding both with containment and with mitigation policies, and the capacity of different healthcare systems to provide a more comprehensive and complete assessment analysis.

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ABOUT EMEA and EMNES

The Euro-Mediterranean Economists Association (EMEA) is a Barcelona-based regional think-tank established in 2012 that serves as a leading independent and innovative policy research institution; a forum for debate on the political and socio-economic reforms in Mediterranean and Africa; and promoter of actions and initiatives that fulfill objectives of sustainability, inclusiveness, regional integration and prosperity. It strives to contribute to the rethinking of the Euro-Mediterranean and Africa partnerships in view of the new dynamics of an emerging multi-polar world and amidst of protracted crises. EMEA has a large network of economists, high-level experts and institutional partners (research institutes, think tanks and universities) in the Euro-Mediterranean and Africa. EMEA builds on the collaborative research network MEDPRO (funded by the EU's Seventh Framework Programme (2009-13) and provides forward-looking thinking and political and socio-economic integrated analyses on the Euro-Mediterranean region. EMEA is also the promoter and co-funder of the Euro-Mediterranean Network for Economic Studies (EMNES), co-funded by the European Commission (DG NEAR) between 2015 and 2019. EMNES is a regional network composed of 30 institutions and more than 100 experts and researchers in the Mediterranean region. From January 2020, EMEA coordinates EMNES.

The Euro-Mediterranean Network for Economic Studies (EMNES) aims to provide a renewed vision for socio-economic development in the Mediterranean region, mainly focussing on employment creation, social inclusion, sustainable development and regional integration. It performs economic and policy research, exploring the pillars of inclusive and sustainable economic models in the Euro-Mediterranean region, along the following **research areas**:

1. Institutions and institutional reforms;
2. Private sector, micro, small and medium sized enterprises and social business development;
3. Entrepreneurship and innovation;
4. Human capital development, education, labour markets and migration;
5. Demographics, health and social protection;
6. Macroeconomic policy , inequality and social inclusion;
7. Inclusive and sustainable finance;
8. Regional integration, trade, investment and infrastructure;
9. Energy, water, environment and sustainable development;
10. Euro-Mediterranean partnership;
11. Scenario analysis and foresight;
12. Other evolving research areas.

EMNES is a network of research institutions and think tanks from Algeria, Belgium, Egypt, France, Germany, Greece, Italy, Jordan, Morocco, Slovenia, Spain, Tunisia, Turkey and the UK. Between 2014-2019, EMNES was co-funded by the European Commission – under Grant Contract N° ENPI/2014/354-488 and EMNES Partners and Associates. EMNES is built on four core principles: independence, excellence, policy relevance and a deep knowledge of Euro-Mediterranean affairs.

