THE COVID-19 PANDEMIC THREATS ON FOOD SECURITY IN THE MEDITERRANEAN REGION
This report was written as CIHEAM’s contribution to understanding the short and mid-term consequences of the COVID 19 crises on the food security of selected Mediterranean countries, in a bid to anticipate desirable steps that could be taken by all actors to mitigate its impact. It is a result of a collective effort that mobilized all the components of CIHEAM.

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Contributors to the report gathered valuable information from the selected countries and must be warmly thanked

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Introduction

The COVID 19 pandemic is a major world phenomenon. Its economic impact is just beginning to unfold, but we already know that its size will be huge, of an unprecedented order of magnitude. It already has impacted many aspects of human and social behavior and will continue to do so. People most at risk are the poor, the marginalized and the socially excluded whose basic components of their livelihood are under threat: their health, their income, their food security.

This report is focused on the consequences for food security in seven Southern and Eastern Mediterranean countries belonging to CIHEAM : Albania, Algeria, Egypt, Lebanon, Morocco, Tunisia, Turkey. It was decided to focus on those countries because of their potential vulnerability to the crises stemming from the convergence of several disrupting factors combined to the COVID-19 pandemic (natural disasters, prolonged drought, devaluation of currencies, social unrest). In addition, food security in those countries is highly dependent on international trade which was put under threat by the pandemic. As for the other CIHEAM countries (France, Greece, Italy, Malta, Portugal and Spain), for which there is a wealth of studies and reports about the COVID-19 crises, their belonging to the EU and their participation in the Common Agricultural Policy may considerably reduce the immediate threats on food security.

The main emphasis will be placed on economic analysis because the economic dimensions of food security are critical, while recognizing that there are also other important dimensions (nutritional, social, ethical, political, geopolitical, etc.).

We will thus begin with a brief presentation of the analytical framework used in this report.
Analytical Framework

We accept the definition of food security formulated by the UN Committee on Food Security in 2009: "Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. The four pillars of food security are availability, access, utilization and stability". This definition is the result of long debates, negotiations and compromises. It expresses the current international consensus on the multiple dimensions involved. All of them have already been, and will continue to be, impacted by the pandemic.

In economic terms, access depends on either home production or ability to buy on a market. The pandemic can impact both aspects. The expected impacts through the markets are those of greatest concern because they touch almost everybody in the seven countries of interest in this report. They will be examined first, focusing first on demand and then on supply.

On the demand side, consumers’ behavior reflects two main concerns: is the product I want available? And can I afford it? And for both questions: what about tomorrow? The relevance of these questions has been very acute in several of the seven countries, leading to violent demonstrations, even ‘food riots’ or ‘conflicts over food’, in times of crisis. As we will see, public authorities have taken quick measures to reassure the consumers, particularly urban consumers, reflecting the political sensitivity of these issues.
Availability on the market depends on supply conditions. The pandemic may affect the three main components of supply: domestic agricultural production, the whole processing and marketing supply chain, and imports, the latter being very important in several of our seven countries. Each one of these three segments have been impacted, in specific ways for each country. New impacts may be expected in the future, but their magnitude is difficult to predict. Ensuring stability, one of the four “pillars” of food security, as defined above, will be challenging.

Economic access depends directly on the purchasing power of the household, which depends on its income and the price to be paid. And for many, the risks on these points are real. Domestic employment, particularly in the informal sector is also threatened. Workers in the export sectors, notably in fruit and vegetable production, may also be negatively impacted by reductions in the volumes of exports. Similarly, production sectors depending on imported inputs, such as livestock feed, fertilizers and pesticides for instance, may be affected by international trade disruptions, with consequences on domestic production and product market prices. In addition, the income of many households is dependent on foreign remittances sent by family members working abroad. And many of those, in Europe or in the Gulf, are at risk.

Price variations on food and agricultural product markets have been diverse, often increasing for consumers and decreasing for farmers. Such variations reflect the various pressures exerted on the respective markets, some of these pressures being linked to the pandemic, whereas others are not, as has been the case for the impact of low rainfall on cereal yields in North Africa, particularly in Morocco, for instance. An important task in the analysis of specific cases is the identification of these various pressures and an assessment of their relative importance [1].

Method and Data Sources

In order to provide a broad and quick assessment of the situation in the selected countries of the region, this report is based on a review of the literature, on the consultation of various documents and data available on internet and on interviews with knowledgeable experts from the concerned countries. Each of the four CIHEAM institutes was given the task to gather verified information from selected countries: CIHEAM Bari covered Albania, Egypt and Lebanon, CIHEAM Chania covered Morocco and Albania, CIHEAM Montpellier covered Algeria and Turkey, and CIHEAM Zaragoza covered Tunisia.

The CIHEAM delegates of those countries were mobilized in collecting data from official sources. In addition, information and data produced by the MED-Amin network about the impact of the Covid-19 crises on the grain sector of CIHEAM countries were also utilized. No attempt has been made to assemble a systematic data set for all seven countries. Thus, the quantitative and qualitative information which it has been possible to collect is somewhat sketchy and often of an anecdotal nature. The analytical framework briefly presented above has been used to elaborate, based on this disparate information, as consistent a discourse as possible of the threats on food security resulting from the pandemic in the various countries. In so doing, we have tried to provide orders of magnitude of the stakes involved and to identify the main issues which will require public attention in the months to come. Thus, we begin with the impacts of the COVID 19 on demand because this is the domain -related to access, poverty, insecurity- which is of direct concerns to the population most at risk. We turn then to supply, distinguishing between short-term issues (e.g. domestic food distribution and availability of imports) and long-term issues, particularly the impact on domestic agricultural production. As already indicated, public authorities have been quick to respond to the threats on food security.

The analysis of the pressures on both demand and supply aspects, as just presented, must therefore take those public measures into account. But this report is also forward looking and is intended to be a contribution to the ongoing policy debate. As a result, policy issues to be faced in the future are also identified in the second part of the report and implications for the CIHEAM are suggested. Throughout, some lessons will be drawn from the comparisons among the seven countries of interest. It is well recognized that the situation of each country is specific, as there are great differences among them. Yet some of the threats are similar and we believe that useful lessons can be drawn from the comparative analysis of how those challenges are faced in one country or another.
CURRENT IMPACTS

At the beginning of the pandemic, many countries experienced a phenomenon of panic buying by numerous consumers fearing the disruption of food supply chains. This led to massive and unreasonable purchases of storable products such as flour, pasta, rice, semolina, pulses, milk powder, sugar and oils. Temporary shortages and consumer price hikes were reported in several countries, as indicated in Table I.
## Table I Price Variations (March-April 2020) Compared to Last Year Same Period or Previous Months

<table>
<thead>
<tr>
<th>Country</th>
<th>Down</th>
<th>Stable</th>
<th>Up</th>
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<tbody>
<tr>
<td>ALBANIA</td>
<td>Bread, Flour, Semolina, Pasta, Rice, Maize, Barley, Vegetables, Meats</td>
<td>Milk (moderate increase)</td>
<td></td>
</tr>
<tr>
<td>ALGERIA</td>
<td>Bread, Flour, Semolina, Pasta, Rice, Maize, Barley</td>
<td>Meats, Fruits and Vegetables</td>
<td></td>
</tr>
<tr>
<td>EGYPT</td>
<td>Pulses at production level</td>
<td>Bread, Flour, Semolina, Maize, Barley</td>
<td>Pasta, rice</td>
</tr>
<tr>
<td>LEBANON</td>
<td>Fruits and Vegetables</td>
<td>Bread and Flour (subsidized)</td>
<td>All food items</td>
</tr>
<tr>
<td>MOROCCO</td>
<td>Fruits and Vegetables</td>
<td>Bread, Flour, Semolina, Pasta, Rice, Maize, Barley</td>
<td>Oranges</td>
</tr>
<tr>
<td>TUNISIA</td>
<td>Fruits, Vegetables</td>
<td>Bread, Flour, Semolina, Pasta, Rice, Maize, Barley</td>
<td>Fruits, Vegetables</td>
</tr>
<tr>
<td>TURKEY</td>
<td>All grains. Chicken meat and eggs. Slight consumer price index increase linked to Turkish lira depreciation</td>
<td></td>
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</tbody>
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Source: Med Amin report and country reports compiled by CIHEAM institutes
But generally these did not last long [2] as governments intervened quickly to stabilize prices through different actions and they advertised these actions in order to reassure consumers. In addition, this period coincided with the beginning of Ramadan, traditionally a time of increased purchases of food in the countries studied here. As it happened, retail stores were generally well prepared for this surge in demand. The stabilization of prices was also made easier by the numerous closures of hotels, restaurants and cafés and the drastic reduction in the number of foreign tourists.

By contrast, the situation in Lebanon is much more critical. The COVID pandemic has exacerbated a very deep general economic crisis, the severity of which having both caused, and been illustrated by, the popular protests initiated in October 2019. Prices of food, included in the “Survival Minimum Expenditure Basket” (SMEB) monitored by the WFP increased by more than 40% between September 2019 and March 2020, the prices for sunflower oil and sugar having increased respectively by 72% and 66%. The crisis is so severe that Lebanon defaulted on its external payments in March 2020. The exchange rate of the Lebanese pound has exploded on the black market reaching up to 2,800 pound per dollar at the end of March 2020, as compared to 1,540, which had been the fixed rate for a long time, making imports much more expensive. As a result, the food security of the poor, marginalized and socially excluded and, in particular of the vast majority of Syrian refugees, has deteriorated considerably.

[2] None of our seven countries were among the countries where, according to FAO, “prices of one or more basic food commodity are at abnormal high levels in main markets which could negatively impact access to food at national level” http://www.fao.org/giews/food-prices/home/en/
Most governments, notably those of Albania, Algeria and Morocco, strengthened the use of their price control instruments, which vary among products and among countries. They all emphasized that they would monitor more closely market developments, particularly for basic food products, and they advertised broadly their actions in this domain.

- **GOVERNMENTS TOOK VARIOUS INITIATIVES TO INFLUENCE DIRECTLY THE FOOD DISTRIBUTION CHANNELS**

  For instance, in Turkey the Ministry of Trade put in place and developed a “digital marketplace” offering B2B solution unifying 113 local stock exchange offices and Turkey’s Union of Chambers of Commerce and Industry and Commercial Exchanges (TOBB). The purpose of this agricultural marketplace is to shorten the time for negotiation and sales of the produce and better organize the logistics means between sellers and buyers. In addition, the government supported municipalities to take the responsibility of distributing bread and other first necessity food to those who were obliged to stay at home like the elderly over 65 years old and the young population under 20 years of age. Similarly, supermarkets received financial support from the Agricultural Credit Union to supply the urban consumers with food products directly sourced by cooperative member farmers.

  Similarly, GIPLAIT the public agency producing and distributing milk in Algeria which controls 60% of domestic production, undertook, according to the official press agency, to increase its volume of production by 20% and to develop its marketing network. The same consumer protection objectives were assigned to the distribution network of ONILEV, the public agency in charge of vegetables and meat, which was charged with the task of “regulating the market and fight against "speculative practices". ONILEV has certified more than 200 retail outlets in 32 wilayas to supply food products at “reasonable prices”.

  In Morocco, the Ministry of Agriculture relaxed some rules regarding public markets, thereby permitting producers to sell directly to supermarkets without going through wholesale markets, which has highly facilitated the market supply.

  Similarly, in Albania several measures have been undertaken by local government (mainly big municipalities such as Tirana) in re-allocating local produce from farmers to vulnerable groups such as elders and low-income households.

  In Egypt, the Ministry of Supply (MSIT) confirmed that all subsidized Balady bread bakeries are getting their shares of flour and bran. The price of coarse bran is fixed by decree, at EGP 3,400-3,600 per ton depending on the governorate.
All seven governments have been active and communicated broadly on this matter. For many of them, imports of basic food stuffs, cereals, for example, provide a large share of their domestic needs. Securing a sufficient volume of imports has been a priority. And that necessity was made more urgent by the export restrictions put in place by traditional suppliers, such as Ukraine, Russia and Romania.

Accordingly, Algeria was able to purchase 2.55 million tons of wheat between December 2019 and April 2020, which was well in excess of what had been planned for the 2019-2020 campaign. This was done during a period when the Algerian government had decided to reduce its overall import bill from 44 to 31 billion US dollars because of balance of payment concerns. On March 22, it decided to exempt the food sector from that reduction imperative.

Morocco also increased its imports of cereals, barley and wheat in particular, and it extended the period during which imports of wheat and of some pulses are exempted from custom duties. It also increased its imports of vegetable products.

Turkey, which is traditionally a net importer of wheat, managed to keep importing despite the threats resulting from export restriction by Black sea suppliers. It has also been able to continue exporting dairy products and vegetables.

Albania increased its imports of cereals, pulses, milk and eggs during the first quarter of 2020 compared to the same period a year earlier.

In the case of Egypt, fears have been expressed regarding the ability of the government to maintain stocks at the level of four months of consumption, perceived as necessary to ensure a reasonable degree of food security at the national level. Those fears have been based on the existence of export restrictions by some traditional suppliers. The concern of public authorities for food security has also been reflected in the announcement at the end of March by the Ministry of Trade and Industry (MTI) that all pulses exports (to stabilize broad beans and lentils local supply) were halted for 3 months except for peanuts, green peas, and kidney/green beans. A similar decision to halt the export of vegetables for three months to preserve local supply was announced a few days later.
But the greatest impact of the pandemic on demand will be much deeper and long lasting. It is the result of drastic reductions in incomes through multiple channels related to the major global economic crisis. Several impacts have already begun to be felt: reductions in remittances from family members working abroad, reductions in export revenues, reduction in domestic employment particularly in the informal sectors as well as in some very vulnerable economic sectors, such as tourism and air transportation.

And it is the most vulnerable sections of the population who are mostly affected, households who spend a disproportionate share of their income on food expenditures and whose food security is most at risk. Various governments have already responded to these shocks, as illustrated by the various examples mentioned below. But it is impossible to predict how long and how deep the economic crisis and its various impacts in specific countries will be. One thing is sure however the orders of magnitude involved are unprecedented. Public authorities will need to monitor these developments very closely and be prepared to intervene, perhaps massively due account being taken however of the fragility of public finances in most of the seven countries under study.
In Algeria, it was reported that the Ministry of the Interior drew up a list of 2.2 million impoverished families who received a premium of 10,000 Dinars (roughly 70 Euros), at a cost for the national budget of 22 billion Dinars, this premium being in addition to the food distributed in kind to some 400,000 families. The margin of manoeuvre of the government is restricted by the sharp drop in the price of petroleum. This led the Parliament to pass in June a “Supplementary Financial Law” reducing “current and capital spending by 5.7 percent (representing 2.2 percent of 2019 GDP) compared to the initial 2020 budget law”, according to the IMF.

In Egypt, it was announced that the government “rolled out a full-fledged stimulus package worth at least EGP 100 billion (roughly 5.5 billion Euros) to absorb the shocks of the pandemic. In addition to various tax exemptions, this package included measures specifically targeting the poor. For instance, it expanded the Social Security and Pension Act’s realm by disbursing EGP 27.6 billion in funds to 2.4 million families, encompassing a total 10 million beneficiaries, as well as raising pensions by 14% starting 2021”. It also provided one-time stipends of EGP 500 for seasonal workers who register online with the Ministry of Manpower; around 130,000 workers were registered as of March 25. World Bank loan resources were also mobilized and the World Food Program reported “supporting Egyptian government efforts to assist vulnerable groups by securing food and nutrition security; building resilience for improved livelihood, employability and recovery from economic shocks; and strengthening national institutional capacities to improve targeting of at-risk populations”.

In Morocco, King Mohammed VI announced on March 15, the creation of an emergency fund called “Fonds spécial pour la gestion de la pandémie du Coronavirus (Covid-19)” with the purpose of improving health infrastructure and supporting the worst affected (Eljechtimi, Ahmed, 2020). According to press reports, the fund had collected a volume of MADinar 26 billion (roughly 2.4 billion Euros) as of March 18th (Chahid, 2020). As a result, employees declared to the CNSS at the end of February 2020 by a company in difficulty or out of business will benefit from a monthly lump sum indemnity. The indemnity amounts to MAD 2,000 net that will be paid to this category of employees. In addition to family allowances and health insurance benefits, households receiving free medical care (RAMED) operating in the informal sector who no longer have an income due to compulsory confinement can benefit from subsistence aid from MAD 800 to MAD 1200 depending on the size of the household, which will be served by the Coronavirus fund.
EXAMPLES OF ACTIONS TAKEN BY MEDITERRANEAN GOVERNMENTS TO PROTECT VULNERABLE SECTIONS OF THE POPULATION

In Lebanon, the payment for the food component of the support provided by the National Poverty Targeting Program (NPTP) was increased from LBP 40,500 to LBP 50,000 effective April 2020 to compensate for the increase in food prices. This program was started in 2011 and is funded by the World Bank and other donors. It targets extremely poor Lebanese households in addition to Syrian refugees. It reaches 43,000 households whereas it has been estimated that the current crisis could put 155,000 households, i.e. 22% of the population, under the extreme poverty line.

In Albania, financial support has been provided by the Government, such as unemployment payments/benefits, etc., as well as food aid to families with low incomes.
The pandemic has impacted food supplies in various ways; the most immediate impact has been due to logistics disruptions caused by the various sanitary measures taken by governments restricting the movements of people and of goods. These have directly affected agro-industries and the various food value chains. In addition, as already indicated, export restrictions by traditional suppliers have been a second source of disruption. The impact on agricultural production itself does not seem to have been major, but it could be a cause of concern for the future. We will now review each one of these topics successively.
LOGISTICS DISRUPTIONS

Entry bans to metropolises, other transportation restrictions, and fortnight quarantine obligations for truck drivers entering the national boundaries as well as the reduction of workers able to report to work, have created serious difficulties in food transportation and storage and increased the food waste and losses. Such difficulties have been reported in the cases of Turkey, Albania, Morocco and Egypt in particular. In Tunisia, a survey of agro-food enterprises indicated that 80 percent had faced import or supply problems. The milling-baking and the malting-brewing are among the grain-related sectors which have been most affected by the demand shock induced by the crisis in Algeria, and perhaps also in Turkey.

The milling-baking and the malting-brewing are among the grain-related sectors, which have been most affected by the demand shock induced by the crisis in Algeria, and perhaps also in Turkey. The meat and milk industries have also been mentioned in several countries, whereas logistical disruptions for perishable goods (fruits and vegetables) have been emphasized in the case of Morocco.

With a progressive relaxation of the sanitary disciplines, in addition to the widespread exemptions from these given to workers in the food supply chains, one may expect that these negative impacts of the pandemic will diminish in the future. But much will depend on the spread of the pandemic in the various countries and on whether a “second wave” of infections will occur, which would force public authorities to reinstate stringent sanitary restrictions.

There are signs that consumers have adapted their behaviour to the new situation, in particular with the development of home delivery, a movement quite noticeable in the case of Tunisia.
EXPORT RESTRICTIONS

As already indicated export restrictions imposed by traditional suppliers have been a cause for concern. And indeed in early April, for instance, Romania, one of Egypt’s main wheat suppliers and the second-biggest wheat shipper in the EU, initially banned wheat exports to countries outside the EU. A wheat shipment, already sold to one of Egypt’s state-owned buyers, was held up by the new restriction. This ban was rapidly removed following European Commission action as it was completely illegal. In the current FY 2019/2020, Romania had so far exported 759,000 tons of wheat to Egypt. Other countries from the Black sea “bread basket”, such as Ukraine and Kazakhstan, also imposed restrictions in April. These took the form of export quotas. They have been rescinded or liberally relaxed at the end of May. Thus, one may hope that this source of food insecurity will not be a major concern in the coming months.
For cereals, the most important “strategic group of commodities”, the COVID-19 crisis did not induce significant changes on the grain harvest outlook, as the peak period of the crisis did not coincide with the harvest (which starts in June-July in most of the countries). In Morocco, the expected harvest is well below normal, but this is due to a severe drought, not to the COVID pandemic.

For spring and summer crops, the planting of which occurred mainly during the March-May period, input shortages have been reported in some countries (e.g. Turkey) and price hikes for fertilizer in Albania, but this hike was also due to the devaluation of the Lek. The work force remained available at the farm level. It was even higher than normal in some places, notably Albania, because normal seasonal migration flows to Europe, mainly to Italy in case of Albania, were disrupted. In addition, all countries set up specific traffic authorizations to farm workers, seasonal workers, agricultural operators and suppliers in order to ensure the normal running of campaigns. In remote areas of Algeria, customary organizations have been mobilized to contribute to the harvest. Yet, in several places increased losses have been reported at the field/farm levels due to disruptions in the marketing chain, especially for fresh products.

In several countries, Algeria and Turkey in particular, serious actual or feared disruptions have been reported in the livestock sector. As indicated above, there have been shortages in Algeria of pasteurized liquid milk sold in plastic bags, a product popular among the poor. In Turkey, the devaluation of the Turkish Lira, which coincided with the COVID crisis, led to increases in the cost of imported livestock feed, a major input for this sector. The magnitude of the actual impact on domestic production is not clear. In Tunisia, the harvest of fruits and vegetables, notably apricots, peaches and tomatoes, in coastal areas such as the Cap Bon and Sahel regions has been threatened by labour shortages.
Based on the information available, it appears that governments have been less forceful in their measures to support agricultural production than in their actions to ensure that consumers had access to food. This may be perfectly understandable because the threats of disruption to food access and distribution were immediate whereas agricultural production itself was less at risk. But this observation deserves to be noted. Nevertheless, all governments took measures to facilitate the movements of agricultural workers despite lockdown restrictions.

It happens that the richest information we were able to collect is for the case of Turkey. Reports from the Ministry of Agriculture in that country demonstrate a real effort to use its existing instruments to minimize the risks for agricultural production resulting from the pandemic. For instance, a “Project for Improving Plant Production” was implemented in pilot provinces in order to increase agricultural production; cereal, pulse and oilseed plant seeds were distributed for a payment of only 25 percent of the cost. In the same vein, governorships were instructed to take all precautions regarding fertilizer production, logistics, and shipping so that farmers did not have trouble in fertilizer supply. It was also announced that unused agricultural lands belonging to the Treasury, i.e. some 3.4 million hectares of fallow land, would be made available to farmers for additional cultivation.

The information available for other countries is more sketchy. Yet, in Morocco, taxes on the agricultural sector were deferred and new credit facilities were created for farmers. In Egypt, payments of taxes on agricultural land were suspended and the payment of export subsidies was accelerated, the Export Subsidy Fund having earlier accumulated arrears on these payments. In Albania, the government announced that small family owned farms, unable to reach a turnover of 113 Euros, would be provided with a minimum payment of 211 Euros. In Lebanon, where according to some academic estimates, agriculture production will fall by 38 percent this year compared to 2018, an “Agricultural Emergency Plan” has been launched by the Ministry in March 2020. A reading of this plan leaves the impression that the main actions make sense, but that they will probably be underfunded because of the severe limitations on available public financial resources. In Algeria, the government decided on May 3 the « immediate creation » of a national agency (“Office National”) for Saharan Agriculture to develop several million hectares of agricultural lands in the Sahara.
So far, although many poor people have suffered in Mediterranean countries, the bulk of the food security crisis has been weathered in the seven countries under study. But the risks for the future remain high and the situation could get much worse in future months. It is indeed necessary to bear in mind that the number of people infected by the virus and the number of deaths caused by the pandemic continue to increase globally and that the economic costs will be huge and continue to unfold for months, perhaps even years, even in the optimistic scenario that there will not be a second wave of the pandemic. We will briefly review these two sources of risks before discussing the challenges faced by the seven countries under study.
At the time of writing this report, the spread of the pandemic is accelerating. The WHO COVID-19 Situation Report for June 18 indicates. “8.24 million confirmed cases (181,232 new) and 445,535 deaths (5,245 new). The WHO reported 8 million global cases on June 17. Overall, the global daily incidence continues to increase, and the pandemic appears as though it continues to accelerate… This daily incidence is the highest reported by the WHO to date”

The acceleration touches many diverse countries; it is particularly notable in the Americas (USA, Brazil, Chile,…), in Russia and in India. The spread of the disease is threatening our neighborhood: “Overall, the Eastern Mediterranean Region remains an emerging hotspot, representing 5 of the top 11 countries in terms of per capita incidence.

Qatar (currently #2, but likely to return to #1), Bahrain (#3), Oman (#5), Saudi Arabia (#8), and Kuwait (#9). Additionally, nearby Armenia is #4. In addition to Iran, Saudi Arabia is currently #8 globally in terms of total daily incidence, and Qatar is #19, despite ranking only #139 by population. More worrisome yet, two of our countries (Egypt and Turkey) are reporting increasing numbers of new cases per day.
The magnitude of the economic shock, that is already known, will be unprecedented. The World Bank has projected a world GDP contraction of -5.2 percent in 2020. The contraction projected for developing countries is less severe than for developed countries: -2.5 percent versus -7 percent, but this would be a contraction for the first time in 60 years. In its latest Economic Outlook, the OECD stated: “The Covid-19 pandemic has triggered the most severe recession in nearly a century and is causing enormous damage to people’s health, jobs and well-being” and the OECD added: “The global outlook is highly uncertain”. Laurence Boone, OECD Chief Economist, after explaining that their outlook was based on two scenarios depending on whether or not there would be a second wave of the pandemic, wrote: « Both scenarios are sobering, as economic activity does not and cannot return to normal under these circumstances. By the end of 2021, the loss of income exceeds that of any previous recession over the last 100 years outside wartime, with dire and long-lasting consequences for people, firms and governments.” Martin Wolf, chief economics commentator of the Financial Times and a well-recognized world opinion leader, entitled one of his recent articles: “Covid-19 will hit developing countries hard”. Note that all these assessments at the world level are consistent with the analytical framework presented above.
The likely impacts on the poor of these macroeconomic indicators are also dire: Thus the latest estimates of the World Bank on the consequences of the crisis for the number of people “extremely poor” has been estimated under two scenarios, a baseline corresponding to the 5.2 percent contraction just mentioned and the second one being more pessimistic. The authors write: “Under the baseline scenario we estimate that COVID-19 will push 71 million into extreme poverty, measured at the international poverty line of $1.90 per day. With the downside scenario, this increases to 100 million”. The WFP has provided estimates for the number of people suffering from “acute hunger”, those usually targeted by humanitarian agencies: “Latest numbers indicate the lives and livelihoods of 265 million people in low and middle-income countries will be under severe threat unless swift action is taken to tackle the pandemic, up from a current 135 million. That is nearly double the number in the newly published Global Report on Food Crises 2020, which estimates that 135 million people in 55 countries currently face acute hunger as a result chiefly of conflict, the effects of climate change, and economic crises”, a report drawn up prior to the emergence of COVID-19 as a pandemic. Accordingly, these figures led Ariel Husain, the WFP chief economist, to choose: “After the Pandemic, a Global Hunger Crisis” as the title of a recent opinion article he wrote for the New York Times.

But what about our seven countries? All these indicators relate to countries located mainly in sub-Saharan Africa and South Asia, which are much poorer and more vulnerable than Mediterranean countries. In addition, might the pessimistic warnings formulated by the quoted international agencies and their officials be somewhat self-serving, defending their relevance and the importance of their missions?
Indeed, an alternative discourse has emerged from certain quarters in Asia and Africa questioning the alleged over pessimistic nature of the warnings issued by international organizations. Those voices point at comparative advantages of developing countries in managing the crises, such as their stronger experience in tackling epidemics, their younger population, or some cultural traits leading to more resilience. They sometimes consider that the crises might provide an opportunity for greater regional collaboration leading to an inflexion of the global current economic order towards more solidarity and less domination by richer countries. Such views, however, have a paradoxical dimension whereby developing countries yearn for more control of their destiny yet call for more foreign aid and debt relief, and whereby calls for regional cooperation have not prevented countries to develop purely national strategies to cope with the crises.

In any case, there is no doubt that the risks pointed out above are serious and relevant for our purpose: the macro-economic shocks resulting from the pandemic will continue to have an impact. Some affect all our seven countries (lower foreign remittances, collapse of foreign tourism, reduced export earnings) others will be felt more acutely in specific cases, e.g. low petroleum prices for Algeria, reduced Suez Canal fees for Egypt, global external finance crisis for Lebanon. The future evolution of these threats cannot be precisely predicted, but the risks involved are very serious indeed.
Considering the real urgency of the issues just discussed, there is a risk that governments would be tempted to relax their efforts undertaken to cope with environment damages and to adapt to climate change, thus using scarce resources to cope with immediate sanitary and economic threats. Such a choice would certainly have disastrous effects, as environmental and climatic challenges are entangled with challenges deriving from the COVID crises, in a systemic manner. Neglecting part of them would only exacerbate the combined impact of all those threats. Conversely, the crises could be an opportunity to develop new economic and technical models more environment friendly and better equipped to adapt to and alleviate climate change.
The following food insecurity challenges must be faced and receive urgent attention.

The greatest food security challenge in each one of the seven countries relates to the precarious situation of the poor and marginalized people.

- Ensuring water security
- Rural development policies, including special programs and projects
- Food supply chains
- Support to agricultural production
THE GREATEST FOOD SECURITY CHALLENGE IN EACH ONE OF THE SEVEN COUNTRIES RELATES TO THE PRECARIOUS SITUATION OF THE POOR AND MARGINALIZED PEOPLE.

They are very vulnerable, and the pandemic exacerbates their vulnerability. There are great variations among countries on this score, but everywhere forceful public policies are called for. One may easily conclude that it will be necessary to strengthen social programs to reach the poor both in urban and rural areas, an example of such a program being the National Poverty Targeting Program (NPTP) in Lebanon. But, of course, this is much easier said than done. Public financial resources are needed, and they are hard to mobilize in times of crisis. Indeed, in the case of Lebanon, the NPTP is financed by the World Bank and other donors. There is no doubt that external sources of funding, including international organizations (e.g. World Bank, IFAD, WFP,..) must be relied upon, as illustrated by the case of the support of WFP to the Egyptian government mentioned above. But all these examples represent public interventions which are useful but insufficient. Much more will need to be done to reduce the food insecurity of the weakest segments of the population.

Another limitation of the existing social programs is the design of the instruments being used. Much can be learnt in this domain from the intense, current international debate on the impact of the pandemic on food insecurity. Many papers, manifestoes, calls for action, etc. have been published recently by a variety of institutions [3] and are readily available on the internet.

[3] Several have been quoted already: e.g. those of the HLPE, The World Bank, FAO, IFPRI, WFP. There are many others from various groups.
The concept of “livelihood systems” is particularly appropriate to analyze the rapidly changing situations of poor households and to design policy interventions effectively targeting those households;

The livelihood systems of the poor are complex, depending on multiple sources of income, and they are vulnerable because those sources of income are uncertain and unstable. The crisis resulting from the pandemic increases the volatility of incomes and the food insecurity risks associated with that volatility;

Any social intervention must be monitored closely and frequently, because the policy targets are always changing (i.e. the well-known difficulty of “shooting at a moving target”).

New “high frequency” household survey instruments, relying in part on mobile phones, have been experimented in recent years and they seem to be promising tools for policy monitoring if they can be incorporated in the design and implementation of the new interventions which are called for.

Poverty and food insecurity are most evident in urban and peri-urban areas; but many people residing in rural areas, particularly in remote locations, are especially at risk. In many cases, these rural poor have little voice, using here Hirshman’s terminology. As a result, public policies targeting the poor must be designed to counter this urban bias.

The main implication of these lessons is that new instruments targeting the poor must be designed and implemented. Specifying in more detail what these instruments should be is beyond the scope of this report.
RURAL DEVELOPMENT POLICIES, INCLUDING SPECIAL PROGRAMS AND PROJECTS,

continue to be needed and are made more necessary by the pandemic, in order to fight rural poverty. There is a wealth of information on these policies and programs, what works and what does not. But many of the lessons of the current international debate resulting from the pandemic, which were just summarized, are relevant here. So, comprehensive rural development strategies, revised to take these lessons on board, are urgently called for.

FOOD SUPPLY CHAINS,

disruptions following the pandemic have caused many food security risks. Governments must be particularly attentive to the risks caused by these disruptions. Many actors are involved in these supply chains and it is difficult to design and implement appropriate public actions in this domain. Yet, one simple principle (“Do no harm”) can be usefully born in mind. This implies, for instance, that governments should strive to avoid impeding the movements of goods and people involved in these supply chains. They should encourage and, if possible, support innovations in those supply chains. Several examples of such encouragements and supports have already been mentioned in the first part of this report. One example of an innovation to be encouraged was given in the webinar mentioned above: Thomas Reardon, the pioneer academic having observed and emphasized the rapid development of supermarkets in many developing countries in the last ten or twenty years, emphasized that supermarkets were now developing e-commerce of food products very fast in many parts of the world. This may be a development which needs to be monitored closely, possibly encouraged or perhaps regulated. More generally, IFPRI has reported that many and diverse innovations, involving governments and private actors, have been observed in food supply chains in the world in recent months. Undoubtedly, useful lessons can and should be drawn from these experiences.
SUPPORT TO AGRICULTURAL PRODUCTION

Ensuring the availability of sufficient food at the national level will legitimately remain a major concern for public policies and everywhere domestic production should, and will, contribute to this objective even if one admits that food self-sufficiency will not be feasible in most countries of the region in the foreseeable future. The challenges involved are well known and daunting, given the extreme pressures on natural resources - particularly soils, water and biodiversity - in the region. Yet, the experience of past decades indicates that significant overall growth has been achieved, thanks in particular to technical progress. Governments have enhanced this process in the past, particularly through their support to public research and education institutions. This effort must be continued, with an emphasis placed on correcting the many serious institutional weaknesses of these public agencies. In addition, one needs to recognize that technical and institutional innovations are the results of multiple interactions among many diverse actors forming what is currently called the “Agricultural Knowledge and Innovation Systems” (AKIS). Deft public policies are required to promote positive synergies among these actors, in particular to ensure that small and poor farmers in remote areas are involved, which is both indispensable and difficult.
ENSURING WATER SECURITY

The international community of water experts has recently emphasized the relevance of the concept of water security for sustaining inclusive economic growth [4]. That relevance stems from the recognition that public policies regarding information, institutions, and infrastructure need to be designed in a comprehensive ways, due account being taken of the need to recognize trade-offs, conflicts of interests, and potential contradictions among diverse legitimate policy objectives, which require difficult political choices. Earlier research had shown how much demographic growth, poverty alleviation, food security and natural resource management form a nexus of closely interrelated problems making public policies in these domains particularly challenging. The crisis resulting from the COVID pandemic exacerbates these conflicts and contradictions. The main implication of these reflections is that many of the water policies in the seven countries under study will need to be revised in light of this comprehensive, multi-sectoral and multifaceted approach. And this applies in particular to agricultural water management policies. It is interesting to note in this context that an important research effort has been devoted recently to water challenges in the Mediterranean region, most notably in the frame of the PRIMA initiative. It is indeed important that policy makers and other actors of the water systems should get acquainted with the innovations of all kinds and new management models stemming from those research and innovation projects.

The pandemic crisis in the Mediterranean region makes the role of CIHEAM more relevant and more necessary than ever. Moreover, CIHEAM’s knowledge on the interactions between the European and non-European Mediterranean countries is also very relevant. The Mediterranean region faces difficult challenges as well as exciting opportunities, as many suggest that the “world of tomorrow” should be very different from the world of yesterday. Three areas of potential, and at the same time, challenging opportunities will be discussed here:
The new policy instruments, which are called for to tackle rural poverty, food insecurity at the household level and natural resource management in a holistic manner, will require new research for their design [5], implementation, and monitoring. The great need for innovative, high frequency household surveys was mentioned above. One may think also of the work of Nobel Laureates Esther Duflo and Abhijit Banerjee in their “Poverty Action Lab”, where they test in field conditions the effectiveness of specific policy measures. The CIHEAM could promote the development and implementation of such policy action research in its member countries. This would require action on several fronts: to build up its in-house capacity on such methods [6]; to mobilize scientific collaboration with scholars and research institutions having the necessary skills and an interest in working in the region; and to lobby research funding agencies in order to convince them to fund new researches of this type and benefit from such funding.

[5] The design challenge will be made greater by the need to incorporate the new measures in an existing set of policies, which remain relevant, have often been effective but have limitations which justify reforming them. The new measures must often be components of the reform process, as was the case for instance of the devolution of the operation and maintenance of irrigation facilities to water user associations.

[6] Note that several CIHEAM institutes already have significant research capacity in these domains. This is the case for instance in the field of irrigation management (participatory methods, institutional innovations, enhancement of technical innovations,..) but similar capacity would need to be developed in other domains, notably the expertise on the situations of rural poor at the household level.
Designing and implementing the innovative policy measures which are needed will require a major improvement in the capacity of governments and public agencies. The CIHEAM could/should play a very useful role in capacity building. One could start with a review of existing activities in this domain in the four CIHEAM institutes and an analysis of the new demands and new needs. The content of some training sessions to be offered could be provided by the new research activities mentioned above. Participation of private sector personnel in such training sessions should be encouraged, as so many of the policy reforms and new policy measures discussed above will require the participation of the private sector and civil society organizations to be successful. In addition, the curricula of the training programs offered by CIHEAM institutes for students who prepare a career in the private sector should reflect the new social and environmental responsibilities of the private sector.
The CIHEAM could, if requested by its members, organize local specific training and exchange of good practices. The fact that they are organized locally is important in order to facilitate the attendance, for both public and private sector actors. Many challenges faced by Southern and Eastern Mediterranean countries are similar, even if each country is in a specific situation. The urgency of these problems has become greater because of the pandemic. Much could be gained from closer collaboration, both South-South and North-South. But there are many obstacles, mainly of a political nature, to closer collaboration; and ignoring them would be wishful thinking. Yet more policy dialogue among Mediterranean countries should be possible if issues which are sources of conflicts among countries are avoided. And such dialogues would be highly desirable.

The CIHEAM already plays a modest, but very useful role in this context, as illustrated by the somewhat regular meetings of member state Ministers of Agriculture it organizes. The pandemic crisis is both a challenge and an opportunity. The CIHEAM could offer to convene policy dialogues on specific topics, inviting senior officials directly involved in the design and implementation of policy measures. Carefully designed, such dialogues could involve policy officials eager to share experiences and to benefit from the experiences of experts, including from outside the region, senior CIHEAM personnel playing the role of moderators.
Established in 1962, the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) is a Mediterranean intergovernmental organisation composed of 13 Member States (Albania, Algeria, Egypt, France, Greece, Italy, Lebanon, Malta, Morocco, Portugal, Spain, Tunisia and Turkey). It operates through its 4 Institutes based in Bari (Italy), Chania (Greece), Montpellier (France) and Zaragoza (Spain) and the Headquarters based in Paris.

As a key player in multilateral cooperation in the fields of sustainable agriculture and fisheries, food systems, coastal and rural development, its missions revolve around four main objectives:

- **Protection of the planet by combating all forms of waste:** waste of natural resources, food waste and waste of knowledge and know-how;
- **Food and nutrition security:** by boosting sustainable agriculture and food systems;
- **Inclusive development:** by investing in new generations and fragile territories;
- **Prevention of crises:** by managing tensions and working for the resilience of communities.

The CIHEAM strives to achieve these objectives through education and capacity building, networked research, cooperation and technical assistance and political dialogue. Cooperation is essential for CIHEAM, which collaborates with more than 50 countries, several regional and intergovernmental organisations, and more than 600 universities and research centres.

[www.ciheam.org](http://www.ciheam.org)