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Challenges of modern World and the Georgian agricultural anti-crisis plan

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A B S T R A C T

The paper discusses the problems that will help governments' first priorities in tackling the COVID-19 pandemic have been to overcome the health emergency and to implement rapid economic rescue measures, the latter mostly aimed at providing essential liquidity and protecting livelihoods in the face of abrupt losses of income. As the health crisis gradually abates in some countries, attention is now turning to preparing stimulus measures for triggering economic recovery. The relative importance of the other dimensions will likely vary across different country contexts, according to their development priorities, infrastructure needs and social circumstances, in particular for developing countries. The food sector is fundamentally important for the conservation and sustainable use of natural capital, and ultimately dependent on it. Secure food supply is essential for well-being and economic stability – indeed even to sustain life – meaning that the availability and affordability of food are likely to be key government priorities coming out of the crisis. The agriculture sector faces growing threats including from climate change and infectious diseases of plants and livestock. In some countries, initiatives have been voiced to protect national producers, such as introducing minimal quotas for local products on shelves of supermarkets (Bulgaria and Croatia); Some countries have banned the import of food and live animals from the countries and regions significantly affected by the virus (Croatia); in Bosnia and Herzegovina, small farmers are offered sowing packages for the development of local production. Taxes will be returned to people living above 600 meters above sea level, the government will help them with the purchase of agricultural equipment, support the production and irrigation infrastructure, develop the livestock business and strengthen the processing industries for domestic use. Additional funds will be spent on the cultivation of industrial crops and the development of organic farms. Also, attention will be paid to the cultivation of previously abandoned croplands. The article also discusses let to address the challenges of the pandemic and support agriculture, the Government of Georgia has promptly developed an adequate plan. Because the plan is very complex, it will help to reduce the impact of the pandemic on the country's economy and all directions of agriculture. Most of the problems in the agrofood sector are directly related to the efficiency of the land market and land profitability. Launching a land market will help to enlarge the area of agricultural land, spread intensive agro technology, and increase the banks' interest in the sector. The way the authorities provide information on external markets of agrofood production and international standards must be streamlined, which will help to improve sales opportunities and the issuing of bank loans for the processing sector in order to meet the demand of processing enterprises working with raw materials supplied by farmers. All of this will significantly accelerate rehabilitation of the processing industry, which could play an intermediate role between the financial institutions and the farmers.

Keywords: Agricultural sectors, Agrofood, Climate changes, Food sector, Economy principles, Land.

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The rational use of land is important in many countries [1-17].

For the economic recovery from the COVID-19 crisis to be durable and resilient, a return to 'business as usual' and environmentally destructive investment patterns and activities must be avoided. Unchecked, global environmental emergencies such as climate change and biodiversity loss could cause social and economic damages far larger than those caused by COVID-19. To avoid this, economic recovery packages should be designed to "build back better". This means doing more than getting economies and livelihoods quickly back on their feet. Recovery policies also need to trigger investment and behavioural changes that will reduce the likelihood of future shocks and increase society's resilience to

them when they do occur. Central to this approach is a focus on well-being and inclusiveness. Other key dimensions for assessing whether recovery packages can "build back better" include alignment with long-term emission reduction goals, factoring in resilience to climate impacts, slowing biodiversity loss and increasing circularity of supply chains. In practice, well-designed recovery policies can cover several of these dimensions at once, such as catalysing the shift towards accessibility-based mobility systems, and investing in low-carbon and decentralised electricity systems.

Governments' first priorities in tackling the COVID-19 pandemic have been to overcome the health emergency and to implement rapid economic rescue measures, the latter mostly aimed at providing essential liquidity and protecting livelihoods in the face of abrupt losses of income. As the health crisis gradually abates in some countries, attention is now turning to preparing stimulus measures for triggering economic recovery.

Rrecovery measures can be assessed across a number of key dimensions. Common to all these dimensions is the need for urgent decisions taken today to incorporate a longer-term perspective. A central dimension of building back better is the need for a people-centred recovery that focuses on well-being, improves inclusiveness and reduces inequality.

The relative importance of the other dimensions will likely vary across different country contexts, according to their development priorities, infrastructure needs and social circumstances, in particular for developing countries. These dimensions include:

- **Aligning recovery measures with long-term objectives for reducing GHG emissions.** Avoiding the worst impacts of climate change is key to future resilience and stability. A careful assessment of the influence of stimulus packages on future GHG emissions trajectories is crucial, including in the context of moving towards net-zero emissions. This relates both to near-term emissions of economic activities receiving liquidity support, as well as long-term structural implications of potential lock-in through infrastructure investment decisions facilitated by recovery packages. The long-lived nature of infrastructure investments likely to be made through stimulus packages means that decisions made now will have implications for decades to come, and could determine whether the world can achieve its goals of averting the worst impacts of climate change.
- **Strengthening resilience to the impacts of climate change.** Resilience to climate change is one specific aspect of improving the overall resilience of economies and societies. In particular, infrastructure networks will face increasing pressures from the impacts of climate change, but also play an important role in building society's resilience to those impacts. Infrastructure investment is likely to be a key component of recovery measures in many countries – in part because of job creation potential – and it is important to ensure that infrastructure investments are climate resilient and do not increase exposure and vulnerability.
- **Integrating more ambitious policies to halt and reverse biodiversity loss and restore ecosystem services, including through nature-based solutions.** Biodiversity and ecosystem services are fundamental to economic activities and human health; deforestation and other land use change have been linked to the spread of diseases. Investment in natural infrastructure such as reforestation and wetland restoration are not only a cost effective and sustainable way to improving resilience to climate impacts, but offer employment opportunities similar to man-made infrastructure investments. Investments targeted through stimulus packages need to better assess and value biodiversity and ecosystem services, and integrate these values into decision-making.
- **Fostering innovation that builds on enduring behaviour changes**. Continued technological and process innovation will be critical to achieving climate and other sustainability goals.
- **Improving resilience of supply chains, including through increased adherence to circular economy principles:** the COVID-19 pandemic and containment measures have raised new questions about the systemic resilience of complex global production methods and value chains, triggering renewed interest in more diversified and more localised production and shorter supply chains in certain sectors.

The food sector is fundamentally important for the conservation and sustainable use of natural capital, and ultimately dependent on it. Secure food supply is essential for well-being and economic stability – indeed even to sustain life – meaning that the availability and affordability of food are likely

to be key government priorities coming out of the crisis. The agriculture sector faces growing threats including from climate change and infectious diseases of plants and livestock. It is also a major driver of environmental degradation. Land-use change, including for agriculture, is responsible for a large part of deforestation. Furthermore, excessive fertilizer use has important implications for freshwater ecosystems due to nutrient run-off. Increased ecosystem pressures due to agriculture could also have implications for potential creation of new human diseases. Agricultural expansion into zones close to wilderness areas increases pressures on biodiversity, and agricultural intensification, for example with denser livestock populations, can increase the chance of zoonotic transfer of viruses across species.

Agriculture already receives substantial government support globally. In addition to securing jobs and preventing near-term supply disruption, recovery measures should aim to reshape policies in the sector to promote environmental sustainability and resilience, and innovation for improved productivity.

The global COVID-19 pandemic is still spreading rapidly and poses a threat to mankind, also it has a high negative influence on food demand and supply chains. The risk of the food crisis is growing, especially for poor and vulnerable countries. Border closure, quarantines, closed markets, and, in general, suspensions in trade particularly seriously impact the countries severely affected by the virus and the countries without food security. To prevent this, governments have to take certain immediate actions to minimize the risk of food insecurity in several countries around the world.

Due to the closure of hotels, restaurants, cafes (HoReCa), schools, various institutions, the cancellation of festivals and events in developed countries because of Coronavirus, demand on food has declined sharply, and in some places, farmers have no choice but to destroy their produce; the closure of the borders has completely halted the movement of the seasonal workforce, leaving the EU and the US farms face to face against the dramatic shortage in workers; Due to the prevailing situation less money flows into this sector, farmers in some countries are faced with a shortage of money; and the developing countries are now at risk of acute food shortages.

What are the different countries doing to help farmers?

The US government has mobilized tens of billions of dollars for various programs that cover the agricultural sector and provide direct financial assistance, loans, exemption from taxation of the payment for bona fide leave of absence (due to Covid-19), simplified granting of H-2A and H-2B visas to the agricultural sector and other measures. Also the USA government will buy 3 billion dollars' worth food from farmers.

The **Canadian** government's response to the crisis caused by the Coronavirus epidemic is as follows: they are providing financial aid to individuals, businesses and industries, by direct distribution of money and access to credit, which includes providing financial assistance to farmers: interest payments of 6 -12 months and access to an additional credit lines. 5 billion Canadian dollars have been allocated for this purpose.

The **Australian** Government has classified agriculture and food systems as essential services that are largely exempt from lockdown restrictions. Besides, it has simplified the procedures for extending work visas to seasonal workers. Australia is one of the safest countries in the world in terms of food self-sufficiency, and the share of imported food accounts for only 16% (processed fruit and vegetables, chocolate, coffee, pasta, and rice).

South Africa, which is a net exporter of food, will provide financial support to small farmers directly affected by the virus. The government has allocated an equivalent of approximately USD 62 million, which includes assistance to sectors such as the development of poultry, through the purchase of incubators, food, and medication, the supply of livestock with feed and medication, as well as assistance to farmers in the vegetable sector through the purchase of seedlings, fertilizers, and pesticides for them in order to improve soil fertility. However, only those farmers will be provided with the support who have been farming for a minimum of the past 12 months and **are registered on farmer register or will be registered to receive support**. The package does not include support in infrastructure, mechanization, or debt repayment, and serves only to mitigate the impact caused by COVID-19.

As it was mentioned the main challenge for Europe is the shortage of the workforce and the ways out of the crisis for the different European countries are stimulation of the employees that lost their jobs and have a call for the agricultural faculty students to work at the local farms (for example in France and Germany); farms and enterprises have suspended unnecessary visits and inspections, they also charter airplanes (The Great Britain) to bring in agricultural workers, because, for example, last year 98% of

fruit in the UK were picked by foreign nationals; by creating various online platforms, they try to eliminate the workers' shortage in agriculture (Italy); they are softening regulations to attract workforce and employ migrants (Spain); they extend visas for seasonal workers (Poland); farmers are assisted in partial repayment of loans to help ensure liquidity for companies and preserve money flow (Latvia, 45.5 million euros).

In some countries, initiatives have been voiced to protect national producers, such as introducing minimal quotas for local products on shelves of supermarkets (Bulgaria and Croatia); Some countries have banned the import of food and live animals from the countries and regions significantly affected by the virus (Croatia); in Bosnia and Herzegovina, small farmers are offered sowing packages for the development of local production. Taxes will be returned to people living above 600 meters above sea level, the government will help them with the purchase of agricultural equipment, support the production and irrigation infrastructure, develop the livestock business and strengthen the processing industries for domestic use. Additional funds will be spent on the cultivation of industrial crops and the development of organic farms. Also, attention will be paid to the cultivation of previously abandoned croplands **(Republika Srpska (Bosnia and Herzegovina)).**

As for the **European Union, t**he European Commission has developed a 100 billion euro solidarity instrument to help companies in the agro-food sector keep jobs. The money will be transferred to the Member States in the form of loans, and they themselves will determine the most necessary and needed activities.

The Government of Georgia announced the "State Program for Subsidizing Wheat Import" a few days ago for such a scenario, for which GEL 5.2 million were allocated. Earlier, in March, the government began subsidizing prices for 9 types of food products.

The anti-crisis plan of the Government of Georgia: rural and agriculture support

We can boldly say that the interest of the representatives of the business community in the agricultural sector is growing. In 2019, according to the data declared by enterprises, food, beverages and tobacco worth GEL 4.2 billion were produced, which is 20% more than in 2018 and 114% higher than the corresponding figure for 2012.

According to preliminary data for 2019 (a total figure for 4 quarters), the turnover of the business sector in rural, forestry and fish farms amounted to GEL 478 million, which is 273 million GEL (133%) more than in 2012.

According to the preliminary data of 2019 (the sum of 4 quarters), the Business Sector Production Output in Agriculture, forestry and fishery amounted to GEL 486 million, which has exceeded the index of 2012 by GEL 252 million (108%). In 2012-2019, the Average Absolute Growth of this rate was GEL 36 million, while the Average Annual Growth rate was 11%.

To address the challenges of the pandemic and support agriculture, the Government of Georgia has promptly developed an adequate plan. Because the

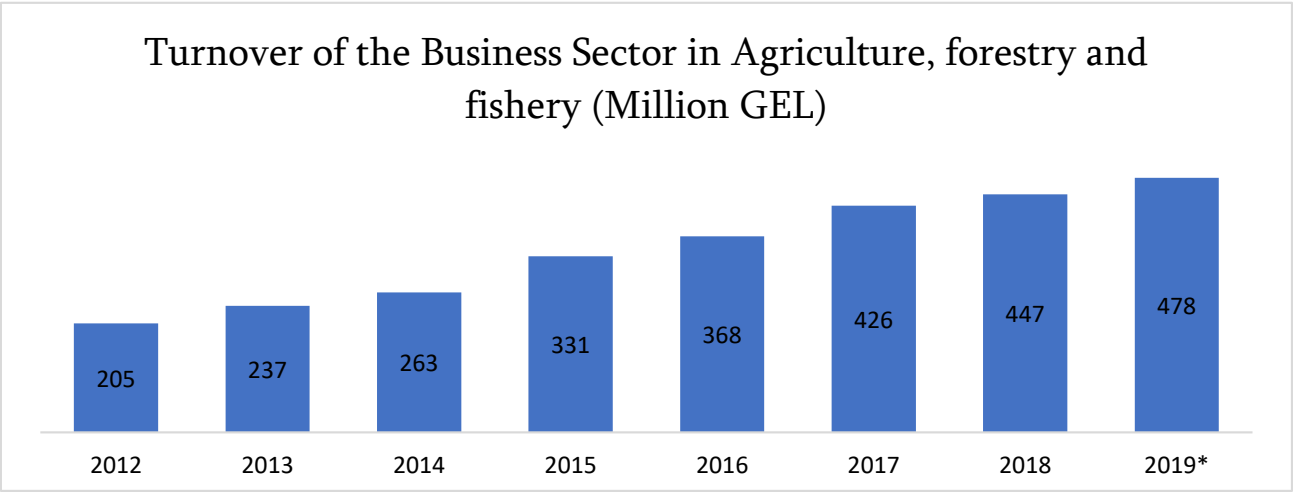

Fig . *Turnover of the business sector in Agriculture, forestrt and fishery (million gel)*

* Preliminary data. Source: Geostat.

plan is very complex, it will help to reduce the impact of the pandemic on the country's economy and all directions of agriculture.

In response to the pandemic, an anti-crisis plan was developed - an unprecedented program of assistance to farmers, that provides financial and technical support for all links in the agricultural value chain. The Government aims to minimize the damage caused by the global crisis in the country.

For above-mentioned reasons, the GoG formed the portfolio of support that amounted GEL 300 million (including the loan portfolio issued by the banking sector that amounted GEL 50 million. The details are described below) to ensure that every citizen involved in agriculture can receive assistance from the state during the crisis posed by the pandemic, in particular:

- GEL 37 million is mobilized. Thus, the farmers can buy fertilizers, plant protection and maintenance products, seed and planting materials, as well as cover the cost of ploughing.
- A new state program "Stimulation of Agricultural Landowners" is launched, which considers subsidising the cost of agricultural goods and ploughing services. To receive the subsidy, individuals and legal entities shall own agricultural land registered in the public register. The amount of the subsidy is determined by GEL 200 for 1 ha (200 points accrued on the agro-card). In the framework of the project, the subsidy for land plot no more than 10 ha is a maximum of GEL 2000. The program will have about 200,000 beneficiary farmers, and the program budget is GEL 37 million.
- To encourage the growth of agricultural production, individuals and legal entities owning 0.25 to 100 hectares of agricultural land registered at the National Agency of Public Registry can buy diesel fuel at a lower price as part of a new state project. The fuel limit was set at 150 litres per hectare. The beneficiaries of the program will be 200,000 farmers who will save GEL 40 million.
- GEL 8 million will be completely written off to farmers, which were accumulated in 2012-2019 due to non-payment of amelioration service fees. farmers will be exempted from the amelioration service fee in this year, the state will pay GEL 75 per hectare - a total of GEL5 million.
- The percentage of co-financing increases in the component of fixed assets of "preferential agro-credit". the Government will finance 11% for 48 months, instead of the existing 8% per annum. The percentage of co-financing for leasing is also increasing, instead of the current 9%, it will be 12%. In the component of fixed assets and all its sub-components, the upper limit of the interest rate imposed on banks increases, instead of 15%, it will be 18%. In total loans disbursed to farmers under the program will amount to GEL 25,000,000. The total budget for co-financing of annual interest rate amounts to GEL 4,000,000 for 2 years.
- A secondary security component has been set up for loans issued for working capital for livestock and Hazelnut production. Within the component, the secondary security collateral of not more than 50% of the total amount of each new loan will be issued and secured by the state within the next 18 months following the issuance of the loan or its first tranche.
- The financing of food industry starts. the amount of the loan is determined from GEL 1 500 001 to GEL 5 000 000. the government will co-finance the loan with an interest rate of 10% per annum for 24 months. Grape processing, bread and bakery production, pasta production will be added to the targeted credits. A sub-component of agro-leasing for the food industry will be added as well, where state co-financing will be 12% for 24 months. Under the frame of the program, the estimated total amount of loans for farmers will amount to GEL 20 million. Through a secondary security component GEL 0.5 million will be covered.
- To facilitate primary production, the "Agricultural Support Program" will be renewed, which foresees to co-finance the purchase of agricultural machinery and also main tools for the installation of an irrigation system for annual crops, an arrangement of new or enlargement/modernization of existing greenhouses. The total amount of state co-financing per beneficiary amounts to 50%, although it shouldn't exceed GEL 50,000. The total budget for co-financing of the program amounts to GEL 10 million. The program is expected to financing 200 tractors, 80,000 sq/m greenhouses and the irrigation system will be arranged on 400 ha.
- Support for agricultural cooperatives is becoming one of the top priorities. The program has been launched to finance agricultural cooperatives and help them to pur-

chase the farm equipment to produce products in accordance with market demand. The program will also support cooperatives in introducing international standards for food safety management and branding of products.

- To support the development of the rural market and agriculture, the systematic registration of land plots will be accelerated in 2020-2022. 1.2 million land plots will be registered in different regions of Georgia.

Based on the results of the analysis for finding the effective ways for a rapid overcoming of the crisis in the agricultural segment, it is necessary and essential to use differentiated organizational and economic mechanisms of market and state regulations. Also developing and stimulation of the existing potential.

Most of the problems in the agrofood sector are directly related to the efficiency of the land market and land profitability. Launching a land market will help to enlarge the area of agricultural land, spread intensive agro technology, and increase the banks' interest in the sector. The way the authorities provide information on external markets of agrofood production and international standards must be streamlined, which will help to improve sales opportunities and the issuing of bank loans for the processing sector in order to meet the demand of processing enterprises working with raw materials supplied by farmers. All of this will significantly accelerate rehabilitation of the processing industry, which could play an intermediate role between the financial institutions and the farmers.

Hereby it is clear that finding the solutions on the given tasks require a long-term perspective and large investments. Agriculture as an industry sector is, of course, less attractive for investors, since only communications and energy are highly profitable for them. Agriculture should be rendered state support in a way that makes every peasant (farmer) want to join this sphere. For example, such countries as Belgium, Norway, Austria, Canada, the U.S., and others directly finance agriculture from the budget in many cases, and this financing is quite significant. The European Union granted 60 million Euros in 2008 alone to support agriculture. Besides, it is important to implement several kinds of reforms such as – the acknowledgment of the modern management criteria, providing adequate continuous education, constant training, consulting for the farmers and employees in the agricultural sphere.

The intentions of the society towards sustainable land management is very important [18]. It is crucial to increase the activity of the insurance system in the Agricultural sector, especially when the state provides co-financing in almost all directions of Agriculture.

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