

THE CHALLENGES OF FUNDING AND CONDUCTING SCIENTIFIC RESEARCH IN POST-COVID-19 GEORGIA (CASE OF THE SHOTA RUSTAVELI NATIONAL SCIENCE FOUNDATION OF GEORGIA)

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Abstract The purpose of this paper is to identify the main scientific challenges caused by the COVID-19 pandemic in Georgia. The facts are based on the: statistics of budget allocation to science promotion and grant financing by the Ministry of Education and Science of Georgia and the Shota Rustaveli National Science Foundation of Georgia (SRNSFG). The major obstacles faced by the scientific community due to the pandemic are also described below. As expected, grants for scientific research were reduced during the pandemic. It is obvious that as well as financial problems, the pandemic has caused many other scientific obstacles. It is important to identify these problems and consider the SRNSFG's approach to reducing them. By conducting research on this issue, the author of this report concludes that the pandemic caused both financial and logistical problems in the scientific community of Georgia. Regardless of the circumstances, the measures implemented in the Georgian education system have been positively evaluated by some international organisations, such as: Microsoft, UNICEF, and the OECD.

Keywords:

COVID-19 pandemic, scientific challenges, grant funding, state budget, problems of conducting research, Shota Rustaveli National Science Foundation of Georgia (SRNSFG)



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1 Introduction

In December 2019, a new virus COVID-19 spread in China. A few months later, the World Health Organization declared COVID-19 a pandemic due to the record-breaking speed at which it spread throughout the world. In a short period of time, COVID-19 not only caused massive damage to healthcare, but also to education, economy, tourism and other sectors. The pandemic has also affected every stage of the education system.

Despite these difficulties, according to a 2020 report by the Ministry of Education and Science of Georgia, the Organization for Economic Co-operation and Development (OECD) has named Georgia and Finland as leaders in successfully adapting the education system and introducing distance learning. Georgia's education executives were also highly praised and named by UNICEF and Microsoft as one of the best role models (Government report to citizens of Georgia, 2020).

The long-term development of a country's economy is unimaginable without the promotion of an economy based on scientific advances, modern technologies, knowledge and innovation. However, the shortest route to sustainable development cannot be presented as individual elements (university, public sector, industry, etc.), but rather as a whole system as a combination of education and science economics and the clusters necessary for the formation of a cluster ecosystem (Gagnidze, 2018).

Given the limited financial resources, it is crucial to implement targeted funding. By funding scientific research and disseminating their positive social effects in society, the government should promote the development of human capital (Polodashvili, 2020b).

The interests of economic development mean that the government must allocate funds for research that is helpful for both, business and universities (Dominici & Gagnidze, 2021).

Commercialisation of scientific research and the resulting creation of intellectual property is particularly important. Patent data is a valuable source for understanding processes in innovation technologies and industries. Such information is crucial for predicting future technology trends and R&D directions (Sobolieva et al, 2020).

In fact, of late reforms have been carried out in different directions in Georgia, including the system of science and education. However, the scientific study of the current reforms is only given as separate evaluations, which is not sufficient for achieving long-term effective results (Gagnidze & Maisuradze, 2016).

2 Scientific challenges in post-COVID-19 Georgia

The pandemic has caused many difficulties for the scientific community. Based on statistics, compared to 2019, in 2020-2021 the share of funds allocated from the budget of the Ministry of Education and Science of Georgia to support science and scientific research decreased (5).

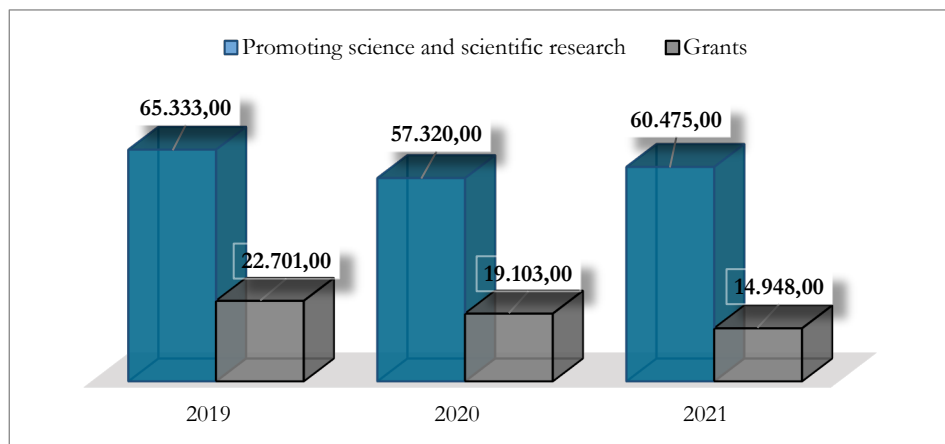


Figure 1: Budget payments of the Ministry of Education and Science of Georgia according to the programme classification in Georgia in 2019-2021. Annual approved plan (thousand GEL).

Source: https://mes.gov.ge/publicInfo/?page_id=143

As shown in Figure 1, in 2020 the budget allocated to the Ministry of Education and Science in the field of science and scientific research reduced by 12% compared to the previous year, whereas in 2021, compared to the same period last year, it increased by 5%.

The reduction in the state budget primarily affected the Shota Rustaveli National Science Foundation of Georgia (SRNSFG), which is the organisation under the Ministry of Education and Science of Georgia. The SRNSFG provides funding for scientific researchers, scientists and scientific institutions, as well as supporting the development of science, technology and innovation (STI) systems in Georgia. The foundation implements state grant calls, targeted programmes and projects, and is involved in international scientific networks and joint projects.

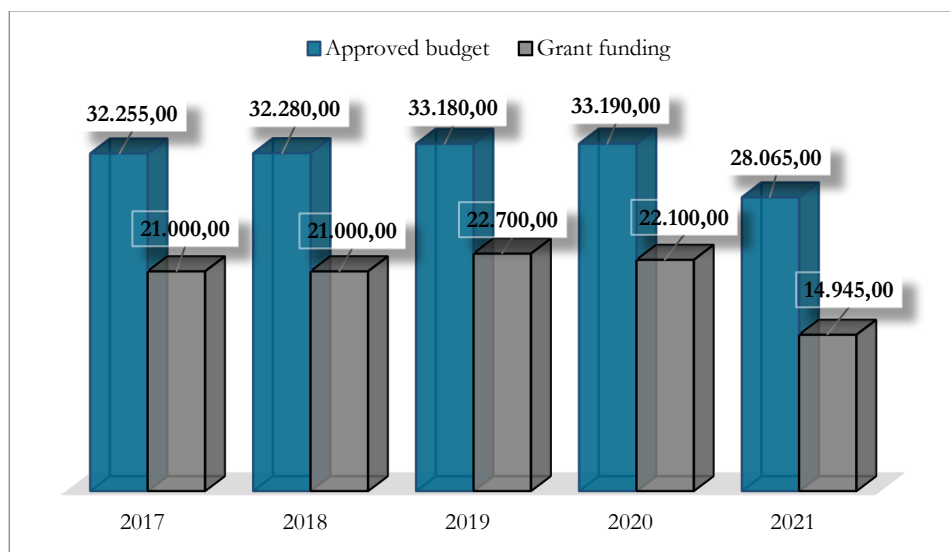


Figure 2. Share of grant funding in the total approved budget of the SRNSFG in 2017-2021 (thousand GEL).

Source: <https://rustaveli.org.ge/geo/dafinanseba-da-khardjtaghritskhva>

According to Figure 2, during the 2017-2021 period, the foundation received the lowest amount of state funding in 2021 – GEL 28,065 million GEL. It should also be noted that due to the newly announced pandemic, in 2020 the foundation's approved budget of GEL 33,190 million was adjusted and reduced to GEL 29,804 million. The share of grant funding in the total budget was relatively stable in 2017-2020, ranging from 65-68%, but dropped dramatically in 2021 to just 53% (6).

It must be mentioned that applied research receives less fund from the state budget than fundamental (basic) research. Figure 3 illustrates the number of the winning projects in the frame of fundamental and applied research state grants administered by the SRNSFG.

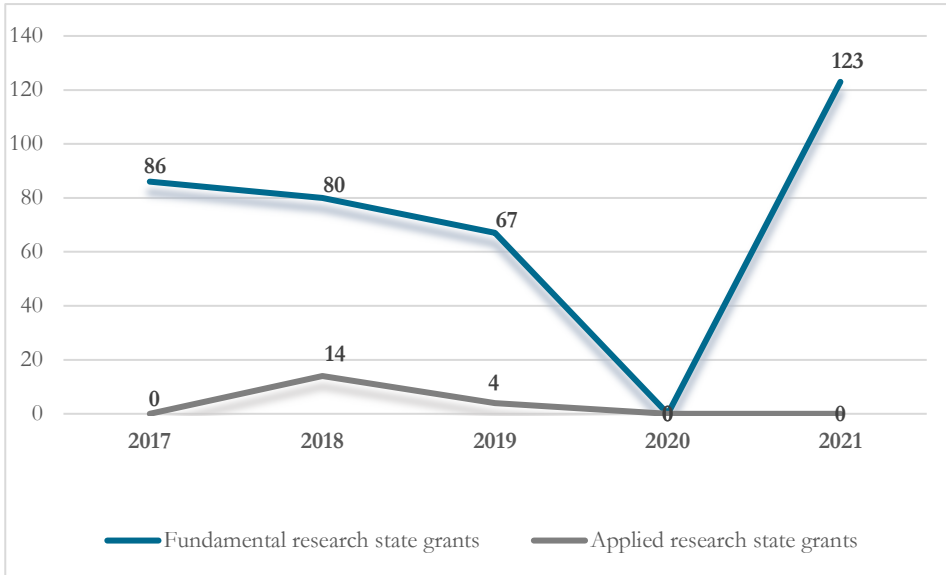


Figure 3: Number of fundamental and applied research grant projects funded by the SRNSFG in 2017-2021

Source: <https://rustaveli.org.ge/geo/konkursebi-da-programebi>

As can be seen in Figure 3, in the past few years, there have only been two calls for applied research state grants – in the years 2018 and 2019. At the same time, calls for fundamental research grants received the largest state funding among the calls administered by the foundation.

During the pandemic, when state funding was reduced, Georgian scientists had another opportunity to submit their applied research projects within the innovative Applied Research Grants Programme (ARGP). This programme was part of the innovation ecosystem (GENIE) project and was fully funded by the International Bank for Reconstruction and Development (IBRD). The ARGP programme was administered by the SRNSFG in 2020. Based on the foundation’s statistical data, the

overall success rate of the call was 75%, which was one of the highest rates of the calls administered by the SRNSFG.

According to statistics, when international scientific calls are administered by foreign countries, the participation of Georgian scientists in them is quite low. Relatively, the funding allocated to bilateral calls, is not fully used. There are several reasons for this low activity: the existence of double standards and requirements, double eligibility checks of registered projects, language and cultural barriers (Polodashvili, 2020a).

2.1 Some logistical problems of conducting scientific research in Georgia

Along with financial problems, the pandemic has caused many other obstacles for the scientific community. It is important to identify these problems and consider the measures taken by the SRNSFG (the main state-funded scientific research organisation) to address or reduce them.

Due to the pandemic, the main problems identified in conducting scientific research are:

- The risk of full or partial non-fulfilment of commitments made by scientists/groups of scientists within the framework of grant funding.
- Due to the closure of the country's air borders and the declaration of a state emergency in the country, it became impossible to conduct planned research visits, or attend conferences and workshops abroad under the grant budget.
- Due to the closure of the borders, research visits by foreign scientists to Georgia under the grant agreements were not achievable.
- With effect from 12 March 2020, the National Science Foundation switched to a remote mode of working, thus restricting visits by scientists and the registration of documents was only allowed on two working days a week.
- Due to the remote work mode, grant holders / applicants did not have the opportunity to consult in person regarding grant issues.
- The existence of only a remote form of communication required a constant connection to the internet and access to a computer, as well as to the

computer programmes needed to receive remote consultations. Access to all of the above was often problematic in many parts of Georgia.

Due to the above, the fulfilment of the obligations under the grant agreements concluded by the foundation and the deadlines for the submission/review of reports were extended until the end of the state of emergency in the country. The force majeure clause became effective in the grant agreements.

It is important to note that the SRNSFG renewed its contract with the world-leading publishing house Elsevier in 2021. The SRNSFG fully funded access to the Elsevier database for the consortia, which consists of 55 members including both state and private universities, research centres and institutions and the representatives of the consortia have access to Elsevier Scopus database, the Science Direct platform and institutional funding, which gives them an opportunity to use the world's newest literature for their research and educational activities. Due to the COVID-19 pandemic, the foundation provided remote access to Elsevier's databases for consortium member organisations. The total value of the subscription is EUR 970,681.05 and it is fully funded by the SRNSFG.

3 Conclusions

The COVID-19 pandemic has been in existence throughout the world for the last three years. Therefore, it is important to find ways to coexist with the virus and fully adapt to it from both sides – the scientific community and government agencies. It is necessary to increase the targeted funding of scientific research, as well as to promote science through the formation of state policies.

Positive social effects can be spread in society by financing applied research in Georgia, which will have a practical impact on the country's long-term development.

In today's post-COVID-19 times, scientists should take into consideration the existing risks of the pandemic in their research and introduce some ways to reduce/eliminate them.

Ultimately, overcoming the scientific obstacles caused by the pandemic will only be possible with a complex approach, i.e. with the involvement of both the public sector and civil society.

References

- Dominici, G., and Gagnidze, I. (2021). Effectiveness of entrepreneurial universities: Experiences and challenges in digital era (A Systemic Approach)', *Interdisciplinary Description of Complex Systems*, 19(1), pp. 13-30. <https://doi.org/10.7906/indecs.19.1.2>
- Gagnidze, I. (2018) The role of international educational and science Programs for sustainable development (Systemic Approach), *Kybernetes*, 47(2), 409-424. Retrieved from <https://doi.org/10.1108/K-03-2017-0114>
- Gagnidze, I. and Maisuradze, N. (2016). Systemic effects of international educational and scientific links. Proposals for the development of educational and scientific national system in Georgia, *Int. J. Markets and Business Systems*, Vol. 2, No. 1, pp.25–44. <https://doi.org/10.1504/IJMABS.2016.078102>
- Official web page of the Ministry of Education and Science of Georgia https://mes.gov.ge/publicInfo/?page_id=143
- Official web page of the Shota Rustaveli National Science Foundation of Georgia <https://rustaveli.org.ge/geo/dafinanseba-da-khardjtaghritskhva>
- Polodashvili, A. (2020a). International scientific links of Georgia for the innovative development of economy. Proceedings, V International Scientific and Practical Conference 'STRATEGIC IMPERATIVES OF MODERN MANAGEMENT', April 23-24, 2020, SHEE Kyiv National Economic University named after Vadym Hetman, Kyiv, Ukraine, 347-350. Retrieved from <https://ir.kneu.edu.ua/handle/2010/32958>
- Polodashvili, A. (2020b). The challenges of science management ecosystem. International Student Scientific Conference 'MANAGEMENT 2020: CHALLENGES AND PROSPECTS', November 18, 2020, SHEE Kyiv National Economic University named after Vadym Hetman, Kyiv, Ukraine, 187-190. Retrieved from <https://ir.kneu.edu.ua/bitstream/handle/2010>
- Sobolieva, T., & Harashchenko, N. (2020). Intellectual property indicators and renewable energy trends. *Polityka Energetyczna – Energy Policy Journal*, 23(4), 17-32. <https://doi.org/10.33223/epj/127911>
- The Ministry of Education and Science of Georgia, Government Report to Citizens of Georgia (2020) https://mes.gov.ge/mesgifs/1609074693_2020-Annual-report-ENG.pdf