

# Pandemic Impact on Sustainable Education

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**Abstract:** Sustainable development cannot be achieved solely through technology, political regulation, or financial mechanisms. Humanity needs to change its way of thinking and behavior. This, in turn, requires the provision of quality education and training for sustainable development at all levels and regardless of social conditions. In turn, the COVID-19 pandemic has dramatically changed the situation in the field of education in all countries of the world. The paper considers the consequences of the pandemic impact that hinder the sustainable education development. In conclusion, Governments are invited to take additional organizational and financial measures in 2021 to mitigate the negative impact of the COVID-19 pandemic on the amount of costs associated with achieving SDG 4, as well as to restore the knowledge lost by students during the closure period.

## 1 INTRODUCTION

The education is one of the priorities of the state's investment policy, which is reflected in national projects. While there is still room to increase the overall spending on education, the main challenge at the moment is to improve the effectiveness, efficiency and equity of public expenditure. In order to ensure that the diversity of Russian conditions is taken into account, the objectives of national projects should be carefully considered and easily assessed and identified at the regional and local levels. The implementation of projects in the regions often requires active support from the federal government, and not only financial support; this is especially true for regions with insufficient administrative capacity.

Education in interests for Sustainable Development (ESD) is designed to help us find constructive and creative solutions to present and future global challenges and to increase the resilience and vitality of societies.

UNESCO is internationally recognized as a leading institution in the field of ESD. It coordinates the implementation of the Global Action Programme

on ESD, which is the official follow-up to the UN Decade of Education in interests for Sustainable Development (2005-2014).

In order for people to learn to lead responsible lives and solve complex problems of global importance, education should encourage the development of critical thinking and qualities that allow you to predict the course of events in the future and make joint decisions. This requires new approaches to learning, the development of dynamic and eco-friendly societies and economies, and the education of global citizenship (Education for Sustainable Development, 2020).

## 2 RESEARCH METHODOLOGY

The paper contains the results on the pandemic impact on education, identified in the framework of published reports and analytical materials of international organizations, specialized analytical publications, data from foreign and Russian news agencies, as well as interviews and articles by leading analysts and experts. The methods of the performed

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research contain theoretical and empirical parts, description methods. This research is supported by graphical methods of illustrating the data.

### 3 RESULTS OF RESEARCH

The COVID-19 pandemic has dramatically changed the situation in the field of education in all countries of the world. As in most areas of life, activity in education was frozen for a while.

The digital revolution deployment on a global scale is increasingly immersing us in a new reality (Dynkin and Telegina, 2020). The variety of technical and technological innovations that change our lives has increased many times over the past decade, and in a wide variety of human activity areas (Fituni and Abramova, 2020).

But today, despite the potential risks, there is a growing understanding that education is one of the areas that needs to be resumed as soon as possible. At the same time, significant financial and organizational costs are required to ensure the safe and effective functioning of educational organizations.

The reports note that many countries, especially those with low-and lower-middle-income levels, are severely short of financial resources to achieve Sustainable Development Goal 4 ("Quality education").

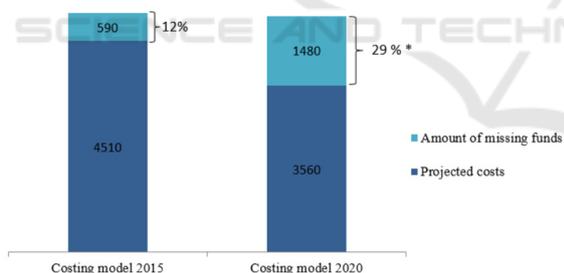


Figure 1: Shortfall for achieving SDG 4 before COVID-19 (in million dollars USA).  
\*The amount of missing funds as a percentage of the total cost.

According to the IMF forecasts, the level of funding for education in the world, equal to the level of funding for education in 2018, will not be reached earlier than in six years. In 2020, the EFA World Monitoring Report working group updated the data used in the cost model and checked whether the assumptions made in 2015 were accurate. For some 2 exceptions, the most important parameters, such as teacher salary multipliers as a percentage of GDP per person, remained unchanged and did not affect the

results of the assessment. At the same time, the analytical calculations showed to the participants of the 2019 High-level Political Forum showed that the pace of implementation of the SDG 4 targets was lower than planned. For example, the actual percentage of students completing a secondary school course has increased only slightly – from 18% in 2015 to 20% in 2020, when it was planned to reach 46% by that time (UNESCO, 2019).

In the period 2015-2020, even before the outbreak of the pandemic, the combined need of low-income and lower-middle-income countries to finance the activities related to the achievement of SDG 4 by 2030 remained unchanged at slightly more than \$ 5 trillion. At the same time, however, taking into account the reduction in the time frame allocated for the implementation of the specified tasks, the annual funding requirement increased from \$ 340 to \$ 504 billion.

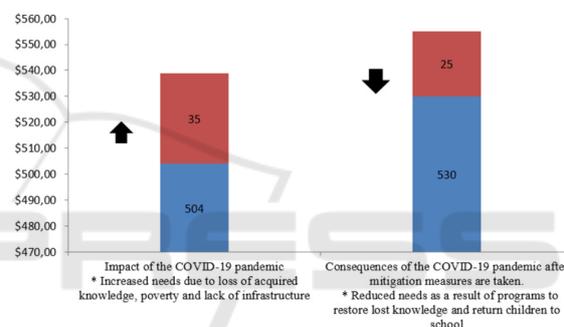


Figure 2: Early intervention, partially offsetting the increased costs resulting from the COVID-19 pandemic (US \$ billion). Funding Requirements.

In general, regardless of the specific scenario in relation to the duration of school closures and GDP dynamics, the COVID-19 pandemic is estimated to lead to an increase of \$ 5-35 billion to the initial level of annual funding requirements of \$ 504 billion. However, the adoption of strategic measures could reduce this increase by \$ 5-25 billion (Figure 3).

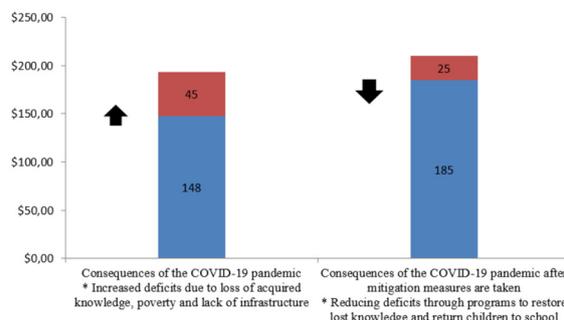


Figure 3: Taking action at an early stages, partially offsetting the increased costs resulting from the COVID-19 pandemic (US \$ billion). Funding Deficit.

In addition, the COVID-19 pandemic is estimated to increase the annual funding deficit by \$ 30-45 billion, with a baseline of \$ 148 billion. In this case, the adoption of strategic measures could also reduce this increase by \$ 5-25 billion. The deepening of the funding deficit is due not only to an increase in the need for additional funding (which, in turn, depends on the development of the epidemiological situation, economic trends and policy decisions), but also on the indicators of public spending on education (that, in the current cost calculation model, are linked to assumptions about economic growth, tax rates and the level of priority of education).

The COVID-19 pandemic has led to an additional increase in the costs of implementing SDG 4. This is also due to the fact that hundreds of millions of students have not been able to use distance learning technologies.

According to a joint study by UNESCO, UNICEF and the World Bank, at least 463 million (or 31%) students in low-income and lower-middle-income countries were not enrolled in distance learning. In this regard, measures will be required to restore partially lost knowledge and skills. An increase in the duration of the educational institutions closure leads to an additional increase in the funding gap for SDG 4.

In addition, there is a high probability that families experiencing serious financial difficulties may decide to stop their children's schooling. The World Bank estimates that 6.8 million primary and secondary school students are likely to end their studies early. According to UNESCO, about 11 million children may not return to school.

During the COVID-19 crisis, approximately 40 per cent of the poorest countries were unable to support at-risk students (IIEP-UNESCO, 2020), and past experience shows that both educational inequalities and gender inequalities tend to be ignored when responding to disease outbreaks (United Nations, 2020). Due to household chores and the need to run a household or participate in agricultural work, children, and especially girls, may not have enough time to study. The problems of disabled children, who were still marginalized before the outbreak, are not always taken into account in the development of distance learning strategies (European Commission, 2020).

Refugee and forcibly displaced children are even more vulnerable and are denied access to support services offered in schools, such as school nutrition and psychosocial support programs.

Students who lack sufficient digital skills and are least likely to have access to the hardware and

communications needed for distance learning during school closures are the most disadvantaged. Of the 21 European countries surveyed, in half of the countries, fourth-grade students from lower socio-economic backgrounds were half as likely to access the Internet as their more privileged peers (UNESCO, GEM Report, 2020). In 7 low-income countries, less than 10 percent of the poorest households have electricity. These include the Gambia, Guinea-Bissau, Kiribati, Ivory Coast, Lesotho, Mauritania and Sudan.

Many students in developing countries, especially primary and minority students, have poor command of the teaching language (UNICEF, 2020). Even if they were provided with materials that they could understand, due to aspects such as home conditions, economic difficulties, and parents lack of literacy (including digital skills), many children could not rely on the stable environment and learning support they needed to adapt to new ways of acquiring knowledge. In most European countries, children from the least socially and economically prosperous families often do not have the opportunity to spend time reading, study in a quiet room, and enjoy parental support when schools are closed. In both low-income and upper-middle-income countries, children from the poorest families receive significantly less help with homework (Save Our Future, 2020).

## 4 RESULTS AND DISCUSSION

Thus, in order to recover from the pandemic and return to the implementation of SDG 4, UNESCO recommends that Governments take additional organizational and financial measures in 2021 to:

- Restore the knowledge lost by students during the closure of schools;
- Maintaining the student-teacher ratio at an optimal level;
- Compliance with sanitary requirements, physical distancing measures;
- Education popularization, continuing education motivation;
- Distance education technologies development.

According to UNESCO, the additional costs resulting from the closure of schools due to COVID-19 could increase the funding deficit for SDG 4 by almost a third. However, the immediate implementation of programs aimed at restoring the knowledge and skills lost by students, as well as their return to school, could reduce the amount of additional costs by at least 75%.

At the international level, to address the challenges of achieving SDG 4 in the context of the

pandemic, the Education Cannot Wait Foundation (Education Cannot Wait) has been established to address education in emergency situations. The possibility of creating an International Financing Facility for Education (International Financing Facility for Education), that is a mechanism for attracting loans for education through international banks, is being discussed.

UNESCO warns of the risk that, in a crisis, education will no longer be a priority for Governments in their domestic and international development policies. The pandemic has significantly affected the economies of the donor countries. What's more, travel restrictions and a persistent Digest. Development outlook: Projections for 2021 and uncertainty will hinder the implementation of technical development assistance programmes, despite the increased need to support the pandemic response through distance learning mechanisms.

In this regard, the United Nations has called on Governments to prioritize education in their financial decisions; to find a balance between health risks and risks in the field of education and child protection; to increase budget allocations for education; and to include education in the focus of international solidarity actions.

The UN emphasizes that the crisis caused by the pandemic can be an opportunity to rethink the concept of education, to take a step towards creating promising systems that provide quality education for all, to modernize the lifelong learning concepts. It is necessary to rely on flexible teaching methods, digital technologies and updated curricula, while ensuring the continued teachers support.

The main task for world leaders and the entire educational community should be preventing the education crisis from turning into a generational catastrophe. This is the best way not only to protect the rights of millions of students, but also to promote economic progress, sustainable development and lasting peace.

The UNESCO-led Global Coalition on Education, which includes United Nations entities, international organizations, private sector actors and representatives of civil society, is currently taking active steps to support the education response adopted by countries in connection with COVID-19. The new campaign, entitled "Save Our Future", will help expand global support for ongoing education activities.

To mitigate the potentially devastating impact of the COVID-19 pandemic, Governments and stakeholders are encouraged to adopt the strategic responses outlined below:

1. The suppression of the virus spread and careful planning for schools reopening:

The most effective measure that countries can take to reopen schools and other educational institutions as soon as possible is to suppress the virus transmission in order to contain outbreaks at the national or local level. After that, they should be guided by the following parameters in the difficult task of returning to school: ensuring the safety of everyone; planning for the schools opening in an inclusive manner; taking into account the views of all stakeholders; and coordinating with key subjects, including health professionals (UNESCO, Global Education Monitoring (GEM) Report, 2020).

2. Protecting the education funding sources and coordinating actions to achieve the results:

The pandemic has caused the deepest global crisis in modern history, which will have long-term consequences for the economy and public finances. National authorities and the international community need to protect the education funding sources in the following ways: better mobilization of domestic revenue, prioritization of education spending and addressing inefficiencies in education spending; the international cooperation strengthening to address the debt crisis; and protecting sources of official development assistance (ODA) for education.

3. Building viable education systems for equitable and sustainable development:

Improving the resilience of education systems enables countries to address the immediate challenges of safely reopening schools and prepares them to better cope with future crises. In this regard, Governments could focus on equity and inclusion; strengthening risk management capacity at all system levels; ensuring strong leadership and coordination; and strengthening consultation and communication mechanisms.

4. Education rethinking and accelerating transformation in teaching and learning:

The large-scale efforts made in a short time to respond to shocks in education systems remind us that transformation is achievable. It is necessary to use this opportunity to find new ways to overcome the crisis in the field of education and to develop a set of solutions, the implementation of which was previously considered difficult or impossible.

Efforts in this direction should focus on the following starting points: addressing the loss of knowledge and preventing drop-out, especially among marginalized groups; developing skills through employment opportunity programmes; supporting the teaching profession and ensuring teacher readiness; expanding the definition of the

right to education by including the right to e-access; removing barriers to e-access; improving the quality of data and monitoring tools in education; increase the coherence and flexibility level with respect to the different levels and types of learning and training.

## 5 CONCLUSION

The shock that the education system has experienced because of COVID-19 is unprecedented. It has reversed the achievement of international education goals and disproportionately affected less prosperous and more vulnerable population groups. Nevertheless, the educational community has demonstrated its resilience and laid the foundation for further recovery.

There is still a risk of the situation deterioration, a downward movement, accompanied by loss of knowledge and isolation. However, each danger of worsening socioeconomic circumstances is an occasion to think about the opposite, i.e. about how to change the situation for the better and build in the future an education system that meets all our requirements: to carry out an all-encompassing transformation in teaching and to realize the potential of each individual and the whole society in all spheres of life through investment in education.

In pursuing the restoring basic educational services goal and reviving its primary purpose, humanity can count on unlimited motivation and unexploited potential. Governments and the international community have a responsibility to remain committed to the principles and to implement the necessary reforms, not only to enable children and young people to look forward to the future they have been promised, but also to ensure that all education workers contribute to this goal.

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