



## Global Problem, National Solution: An Evaluation of Global Public Goods During COVID-19

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### ABSTRACT

Globalist solution proposals for global public goods, which have both non-rivalry and non-excludability properties as well as cross-border externalities, emphasize collective action in the provision of these goods. However, the practice of the COVID-19 pandemic shows that the solution to such a global problem is not so global. This situation necessitates a re-evaluation of the concept of global public goods. The COVID-19 pandemic is a public bad, and efforts to combat the pandemic are an example of a public good. The global consequences of the said global public good also affected other global public goods, and these effects required the determination of priorities in the protection decisions. The policies of governments, caught between economic recession, political crises and health crises, have lagged far behind the globalist solution proposals of the global public goods theory. For this reason, the aim of the study is to determine that although the problem in the COVID-19 pandemic is global, its solution can remain at the national level and to re-evaluate the concept of global public goods within this framework. In the study, after conceptual explanations, first the externality relations between global public goods, and then the search for non-global solutions to the global COVID-19 problem (mask wars between countries, tension in international relations, disinformation processes in order not to take responsibility, the increase in distrust in international organizations, and global inequality created by patenting and pricing of vaccines) are explained.

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## 1. Introduction

Public goods, which are the subject of common consumption of societies, can be at the local and national level, as well as at a global or international level. The arguments of the concept of governance and globalist theses, which have matured within the framework of neoliberalism especially after the 1980s, have made a new contribution to the spatial dimension of public goods. Goods that have cross-border externalities as well as being public goods are expressed as international or global public goods. The benefits and damages that arise in issues such as environment, health, security, knowledge and governance can have global effects. For this reason, an external damage that may occur in these matters is described as a “public bad”, while eliminating these public bads or supporting external benefits is called a “public good”.

While public goods at the local level are provided by local governments, and public goods at the national level are provided by central governments, it is argued that public goods at the global level should be provided by a global partnership (i.e. collective action of countries). From the perspective of governance, the global public goods theory proposes that not only governments but also non-governmental organizations and international organizations should be a part of the process. In addition, from the perspective of globalist theses, the theory emphasizes that countries should not act alone and that countries should generate common solutions in the provision of global public goods. However, these discourses may cause some problems in the provision and financing of global public goods. While the financing problem of local and national public goods can be solved through taxes, the problem of financing global public goods still has not been solved in practice.

At a time when the concept of global public goods became widespread and generally accepted in the public finance literature, the world faced the COVID-19 pandemic. The fact that a global infectious disease affects the whole world has revealed the feature of health as a global public good. In other words, the problem is indeed global. However, in the solution of this global problem, have countries really acted according to the discourses of globalist theses and its extension, global public goods theory? There are serious doubts in this regard. For this reason, while the theory of global public goods was expected to rise because of the COVID-19 pandemic, on the contrary, it and its globalist solution proposals began to be questioned. Realities in practice show that global public goods discourses may not go beyond an approach that serves hegemony.

The aim of this study is to determine that although the problem in the COVID-19 pandemic is global, its solution can remain at the national level and to re-evaluate the concept of global public goods within this framework. In the first part of the study, the concept of global public goods is examined theoretically. In this section, the definition, classification, exemplification, supply types and the financing problem of the concept are discussed. In the next section, the point reached by the concept of global public goods during the COVID-19 pandemic is revealed. In this section, the external relations between global public goods and the search for national solutions to global problems in the case of COVID-19 are examined. In the conclusion of the study, an evaluation is made about global public goods in the light of all data and findings.

## 2. The Concept of Global Public Goods

In order to understand the concept of global public goods in detail, it will be useful to explain the definition of the concept, its classification types and concrete examples, the methods that determine its supply, and its financing problem.

### 2.1. Definitions

Samuelson (1954) became the pioneer of the theory of public goods by referring to “collective consumption goods”, which are non-excludable from benefit and non-rival in consumption. Individuals who focus on their own interest can give false signals by pretending they have less interest in collective consumption goods than they really have. Due to these features, the free-rider problem may occur. Samuelson (1954) states that there should be a central pricing system in order to determine an optimal level of public goods. Therefore, the public goods theory has emerged by considering it on a national scale. However, with the influence of the globalization phenomenon, scale of public goods has changed in the context of their external effects. This scale enlargement is explained by the concept of “international public goods” or “global public goods”.

Kindleberger (1986), which uses the concept of international public goods, can be considered as the beginning of the literature. Although Kindleberger (1986) does not provide a clear definition, he addresses the issue with its economic and political dimensions by giving examples of international public goods. Accordingly, peace is the primary one of international public goods. In addition, there are examples from the economic sphere such as an open trading system, international money, capital flows and consistent macroeconomic policies. Kindleberger (1986) focuses on the absence of a world government to produce these goods. Herber (1990), who examines the example of Antarctica, suggests that the concept of global public goods can be used instead of the concept of international public goods, which is consumed commonly and that their benefits are shared among countries. Mendez (1992) also revealed that the benefits and financial burdens of goods such as oceans and the ozone layer should be shared among countries. Sandler (1998) represents global public goods as activities in one country cross political borders and affect the well-being of people in other countries. If non-rival and non-excludable benefits are fully provided to the world, global pure public goods can be mentioned, whereas if these benefits are partially provided, global impure public goods can be mentioned. These studies formed intellectual foundations of the concept of global public goods rather than giving its initial definitions.

“Global Public Goods: International Cooperation in the 21st Century”, published for the United Nations Development Programme (UNDP), is the first book on global public goods. In this book, Kaul, Grunberg and Stern (1999a: 2-3) explain that global public goods have the general characteristics (non-rivalry and non-excludability) of public goods, at the same time define global public goods as goods with the criterion that “their benefits are quasi universal in terms of countries (covering more than one group of countries), people (accruing to several, preferably all, population groups), and generations (extending to both current and future generations, or at least meeting the

needs of current generations without foreclosing development options for future generations)”.

Kanbur, Sandler and Morrison (1999: 6) define international public goods as “types of activities or products whose benefits spill over, wholly or partly, across two or more countries”. These spillovers can be between neighbouring countries (international public goods) or at a global level affecting all countries (global public goods).

According to another early definition, “If the benefit of the public good is limited geographically, it is a local or national public good. However, if benefits accrue across all or many countries, it is a global or regional public good” (Development Committee, 2000: 1-2).

The World Bank expresses global public goods as “development goals [that] can only be pursued across national borders, [...] [such as] controlling disease, limiting climate change, containing financial instability, and safeguarding global peace” (The World Bank, 2001: 109).

Kanbur (2001) emphasized that global public goods should have cross-border externalities as well as elements of non-rivalry and non-excludability. Cross-border externalities are that actions of one country affect another positively or negatively through classically competitive markets.

The definition of Morrissey, te Velde and Hewitt (2002: 35) is as follows: “an international public good is a benefit providing utility that is, in principle, available to everybody throughout the globe”.

It can be seen from the sum of all definitions that global public goods are goods that have cross-border externalities as well as non-rivalry and non-excludability characteristics on a global scale and whose benefits are universal among countries, people and generations.

While global public goods are associated with positive externalities, situations with negative externalities such as environmental pollution, financial instability and disease are called “public bads”. According to Kaul, Grunberg and Stern (1999b), while global public goods are an intangible hope or policy vision, global public bads are tangible and often present. For example, health is an expectation, but disease is a concrete fact. Therefore, global public goods are generally an expectation, as their production is inadequate. Due to the non-excludability feature of public goods and the difficulty of pricing their benefits, global public goods are “undersupplied” (Kanbur et al., 1999: 5; the World Bank, 2001: 109; Morrissey et al., 2002: 33).

## **2.2. Classifications and Examples**

There are different types of classification of global public goods: classification by types of benefits, classification by sector, classification by degree of publicness, and classification by place in the production chain.

When global public goods are classified by their benefit types, three groups can be mentioned. Morrissey et al. (2002: 36-39) refer to these types of benefits as direct

utility, risk reduction and capacity enhancement. In addition to the fact that these types of benefits are related to each other, any public good can appear in all three types of benefit. However, direct benefit or risk-reducing benefits are more likely to be international, while capacity-enhancing benefits are more likely to be of a more limited scope. The conservation of biodiversity or knowledge of poverty reduction can be examples of the direct utility provided by global public goods. Where the risk is a disutility or public bad, public goods can also benefit by reducing risk. While reducing greenhouse gas emissions (reduced climatic risk), reducing the risk of financial instability and reducing the risk of conflict due to international terrorism and refugee problem, can be given as examples of risk-reducing benefits at the global level; examples of risk-reducing benefits at the regional level include reducing acid rain, ensuring regional security and peace, and reducing the rate of disease. Knowledge and governance can be examples of capacity-enhancing benefits.

According to Morrissey et al. (2002: 39-41), the sectoral classification of global public goods consists of environment, health, knowledge, security and governance. The environment, health and security sectors are associated with benefits from risk reduction, while knowledge and governance are associated with benefits from capacity enhancement. These examples of global public goods are core activities at the national or international level, expressed in classification by types of benefits. However, on a sectoral basis, examples of core activity include emissions reduction research for environment, disease eradication research for health, specialized research centres for knowledge, conflict prevention for security, and multilateral institutions for governance. Moreover, examples of complementary activity include regulation and tax incentives for environment, vaccine distribution system for health, internet infrastructure for knowledge, institutions that provide conflict management for security, and strengthening of domestic civil society for governance.

Kanbur et al. (1999: 54-64) and Sandler (2001: 45), based on the traditional classification of public goods, also made a classification for global public goods according to the level of publicness. *First*, goods that have both non-rivalry and non-excludability properties as well as cross-border externalities are *global pure public goods*. Preventing the spread of diseases or curing certain diseases, braking global warming, limiting the depletion of the ozone layer, and realizing strong financial practices are examples of pure public goods at the global level. *Second*, goods that have only one of the characteristics of non-rivalry and non-excludability are *global impurely public goods*. Examples of global impure public goods with some rivalry but no exclusion are ocean fisheries, controlling pests, preventing organized crime, and mitigating acid rain. Missile defence system, disaster relief aid, and information dissemination can be given as examples of global impure public goods with some exclusion but no rivalry. *Third*, goods that provided by clubs from a group of countries and that used by club members for a price determined by the marginal cost of exclusion are *global club goods*. The most classic examples of these goods are transnational parks, INTELSAT, canals and waterways. *Finally*, activities that produce two or more outputs with varying degrees of publicness are called *joint products*. Examples of these goods are foreign aid, tropical forests, peacekeeping and inter-allied defence spending.

Kaul et al. (1999a: 13) classify global public goods according to their place in the production chain. Accordingly, it is possible to mention about final and intermediate global public goods. Final global public goods, which can be tangible such as the environment and places that are the common heritage of humanity, or intangible such as peace and financial stability, are in fact an outcome rather than a good. Intermediate global public goods help to provide final global public goods. International regimes or reduction of chlorofluorocarbons are examples of intermediate global public goods. These goods are important in determining the area to which international public intervention will be needed in the provision of a particular global public good.

### 2.3. Supply Types and the Problem of Financing

The supply of global public goods differs from public goods at the national or local level. There are four ways to determine the total supply of public goods or public bads at the global level. In the *summary* method, which is the first of these, the sum of each unit's contribution determines the total provision of global public goods. Each unit has the same marginal effect on the total supply, and therefore any unit's providing has perfect substitution for that of another unit. For example, the sum of each country's greenhouse gas emissions determines the total amount of emissions on a global scale. The second is the *weakest-link* method, in which the country that makes the least effort to supply the good determines the total supply of that good. For example, the country that makes the least effort to control a contagious disease determines the risk of the disease spreading to other countries. The third is the *best-shot* method, in which the country with the greatest effort determines the total supply of that good. The research team that puts the greatest effort into treating a contagious disease is best suited to achieve success for the benefit of all at risk. Once a cure is found, additional effort in other units will bring little or no success. The fourth method is *weighted sum*, in which each country's contribution has a different additive effect. The contribution of each country to the reduction of a specific pollution or acid rain varies according to its conditions. Therefore, providing goods needs to focus on those efforts where it has the greatest marginal impact (Kanbur et al., 1999: 6; Sandler, 2001: 16-23).

Sandler (2020) evaluated a more extended version of these supply determination methods of global public goods for COVID-19. From the point of view of COVID-19, the weakest-link can be explained by the fact that the countries that are the weakest in taking precautions increase the risk of spreading the disease at the global level. In addition, the best-shot method is that countries with advances in vaccine technology against COVID-19 also benefit other countries. Kanbur et al. (1999: 6), in terms of best-shots, liken global public goods to development assistance from rich countries to poor countries. Zacher (1999: 275) also sees it as a result of the best-shot method that although there are more than 200 laboratories specializing in certain diseases and affiliated with the World Health Organization (WHO) Collaborating Centre system, only a few of them are called to find solutions to unknown epidemics.

The conceptualization of global public goods and the determination of their supply methods brings along the problem of financing these goods. Traditional public

finance approaches have solved the problem of national or local public goods by proposing public production and financing through taxes. But as the scale of goods expands, leading to cross-border externalities, the problem of financing becomes more complicated. Sagasti and Bezanson (2001: 40-58) categorized the financing mechanisms for global public goods in four main groups: internalising of externalities, private sources, public sources and partnerships.

The *internalising of externalities* is not much different methodically from traditional (national) public solutions. Market creation or taxation for the goods is again suggested here, but its scale is expressed at a global level. For example, the emissions trading mechanism that a country uses between states regarding greenhouse gas emissions may be at an international level in the case of global public goods. As a matter of fact, countries are allowed to market their emission rights under the Kyoto Protocol. Taxes, fees and levies can also be a solution to the internalization of externalities. When it comes to global public goods, of course, global taxes can be mentioned. As Frankman (1996) states, economists such as A. Marshall, J. M. Keynes and J. Meade proposed a global tax for the solution of some global problems in the early nineteenth century. Later, these proposals continued to be discussed in different dimensions by institutions such as the United Nations (UN) and the Club of Rome and by economists such as J. Tobin and R. Mendez. Suggestions such as carbon tax and similar environmental taxes, Tobin tax, international airport tax, brain drain tax, bit tax on computer use are of course global solutions for the internalization of externalities (Reisen, 2004: 7). Sandmo (2006) also reveals on the internalization of global externalities that “internationally uniform Pigouvian taxation is only optimal in the presence of ideal lump sum transfers”. However, the lack of coercive power of international organizations is the reason why there are still no global taxes, and therefore, the financing of global public goods must be provided through the cooperation of nation-states (Desai, 2003: 74). The fact that the above taxation methods remain at the national level and the fact that governments do not want to restrict their taxation powers limits achieving the goal of reducing public bads. This is very natural because taxation authority refers to the sovereign power of a government.

*Private sources*, which are the second financing method, mean that profit-making firms (such as companies), not-for-profit corporations (such as foundations, non-governmental organizations and academic institutions) and individual persons (such as rock singers’ donation) contribute to the financing of global public goods through their funds (Sagasti & Bezanson, 2001: 43-48). Although it is not sufficient on a global scale on its own, it can be considered as a financing method.

The method that has a more important role in the financing of global public goods is *public sources*. National public sources generally include aid provided to underdeveloped countries by the official institutions of developed countries. Examples of this are official development assistance (ODA) aimed at increasing the capacity of other countries to benefit from global public goods, or tax incentives given to private companies to encourage the provision of public goods. The efforts of the underdeveloped countries are usually at the national level. International public sources, on the other hand, mean that the financing of global public goods with funds created by

international financial institutions (such as International Monetary Fund, World Bank, Multilateral Development Bank) and international organizations and agencies (such as United Nations, World Health Organization, World Trade Organization) (Sagasti & Bezanson, 2001: 48-57). Of course, these institutions' administrative structure, ideological stance and treatment that strengthen hegemonic relations are not as innocent as the financing of global public goods. Hence, Stiglitz (2006) has brought heavy criticism, especially because of the undemocratic and opaque of these international institutions where global economic decisions are taken. Conybeare (1984: 20) also criticizes that “[i]nstitutions such as the World Bank and the International Monetary Fund are often referred to as public goods, even though they involve rivalry in the consumption of resources and can exclude countries which flout the rules of the system”.

Finally, *partnerships* are also accepted as a financing method. It is formed by joint action of government agencies, private firms, foundations, non-governmental organizations and international institutions for the solution of global problems (Sagasti & Bezanson, 2001: 57-58).

Sandler (1998) claims that global public goods can replace the traditional forms of foreign aid by changing the international income distribution. In the future, foreign aid may be a “free-rider aid” that prevents diseases, reduces environmental pollution, ensures world peace and provides scientific information. Because the rich countries' spending for global public goods will increase the welfare of the poor countries. However, practice shows that the opposite can happen. Rich countries can also be the source of public bads. In this case, global public goods cannot go beyond the internalization of external costs by country of origin and do not replace foreign aid to poor countries. Moreover, rich countries can strengthen their hegemony to ensure so-called global security as a global public good. This situation is far from being a positive cross-border externality or “free-rider aid” for the rest of the world.

Kindleberger (1981) claims that the leading countries have a critical stabilization function in the provision of international public goods. Although Kindleberger (1981) distinguishes the concepts of dominance and leadership in international economic relations and makes innocent the concept of leadership that does not accept exploitation, the realities in practice do not eliminate hegemonic relations. The “common market” understanding of the globalization theses resulted in the central countries becoming “common” and the peripheral countries “markets”. According to Moore (2004), global public goods arose out of the predicament that the unequal and destructive consequences of neoliberalism are confronted with the role of the internationalised state. Global public goods are the result of the apparatuses of a global state making primitive accumulation global. For this reason, global public goods can also be referred to as “public accumulation”.

The financing of global public goods has still not been resolved due to both the problem of limiting the jurisdiction of national governments and the acceleration of the international political dependency process.



### 3. Are Global Public Goods on the Rise during COVID-19?

It was not predicted at the first stage that a virus, which attracted attention with the increase in the number of patients who went to the hospital with similar symptoms in Wuhan, China's Hubei Province in December 2019, would lead to a historical change in the world. In the same month, it was discovered that this virus was a new type of the SARS coronavirus, which caused an epidemic in 2003. Although some of the first patients were found to be associated with the Huanan Seafood Wholesale Market, there is still uncertainty about the source of the virus. On January 11, 2020, when the disease was thought to be controllable, the first death occurred due to the novel coronavirus. This death occurred in a patient with pre-existing serious health problems (WHO, 2020a: 12.01.2020). On 31 January 2020, WHO declared the outbreak as a public health emergency of international concern (WHO, 2020b: 31.01.2020). On February 11, 2020, the name of the novel coronavirus was determined by WHO as "COVID-19", an abbreviation of "coronavirus disease 2019" (WHO, 2020b: 11.02.2020). WHO announced on 28 February 2020 that it has changed the global risk level of COVID-19 from "high" to "very high" (WHO, 2020b: 28.02.2020). Ultimately, as a result of considering the number of cases and their spread, COVID-19 was accepted and declared as a pandemic on 11 March 2020 (WHO, 2020b: 11.03.2020).

Due to the virus that spread all over the world in a very short time, the number of cases and deaths increased, health systems collapsed as hospitals exceeded their capacities, and health equipment became scarce. Restriction decisions taken by governments to combat COVID-19 have both stopped vital/social activities and slowed down the economy. The virus, which has mobilized all countries and international organizations to combat, has mutated at various times and caused the global risk to fluctuate over time. Although the pandemic is still not over, there has been a slowdown in its pace after the discovery of vaccines and governments have begun to relax social restrictions. Globally, the remainder was a total of 530,896,347 cases and 6,301,020 deaths as of 8 June 2022 (WHO, 2022) and these numbers are likely to increase.

The COVID-19 pandemic has been the most important example of cross-border externality and has necessitated a re-discussion of the concept of global public goods due to its global impacts. To put it very clearly, the COVID-19 pandemic is a public bad, and efforts to combat it are an example of a public good. As a matter of fact, although Caballero-Anthony (2006) made a correct determination by emphasizing that the world is still not ready for the next pandemic in her article written long before COVID-19, she ignored the national priority reflexes of countries while suggesting global solutions for such a global problem. Smith et al. (2004) also criticized the fact that responsibilities remain at the national level despite the globalization of health problems and claimed that global public goods can be useful as an organizing principle in terms of communicable disease control. Although they acknowledged the limitations of the concept of global public goods and the failure of collective action, they argued that global public goods would provide guidance to overcome these problems. Gartner (2012), on the other hand, states that there are strong reasons why national governments do not cooperate to provide an optimal level of global public goods, and therefore, collective action fails in practice on issues such as preventing the spread of

pandemic diseases. But at the same time, he argues that solutions with greater participation, based on new forms of governance, can strengthen the global capacity.

The global consequences of the COVID-19 as a global public good also affected other global public goods, and these effects required the determination of priorities in the protection decisions. The policies of governments, caught between economic recession, political crises and health crises, have lagged far behind the globalist solution proposals of the global public goods theory. For this reason, in this part of the study, first the externality relations between global public goods, and then the search for non-global solutions to a global COVID-19 problem will be explained.

### 3.1. Externality Relationships between Global Public Goods

There can also be externality linkages between global public goods, as demonstrated by the COVID-19 pandemic. A “public bad” (like COVID-19) can lead to a decrease in other “public bads” (like environmental pollution or international terrorism) or an increase in public goods (like knowledge). This can be explained by the positive externality of a public bad to other global public goods. This situation can be summarized with the phrase “every bad has its worse”. At the same time, a “public bad” (like COVID-19) can lead to an increase in other “public bads” (like economic destabilization). This can be explained by the negative externality of a public bad to other global public goods.

The externality relationship between global public goods can be explained by the following implicit function:

$$GPG_i = f(ID_i, GPG_j)$$

where  $i$  means each type of global public goods;  $j$  is the sum of other types of global public goods excluding  $i$ ;  $ID_i$  means the internal determinants of any ( $i$ -th) global public good;  $GPG_j$  expresses the effect of other global public goods as an external determinant.

The effects of both groups of independent variables in this implicit function can be positive or negative. To the extent allowed by the data, this function can be measured empirically for any global public good.

In this function, when environmental pollution is considered as a dependent variable ( $GPG_i$ ), there may be internal determinants ( $ID_i$ ) such as greenhouse gas emissions, solid and liquid wastes, activities that cause climate change, and dirty industrialization; however, the wars in order to ensure international security can have negative effects due to the war industry and the polluting remnants of war, and the COVID-19 pandemic can have positive effects due to the decrease in pollutant production. And these two instances represent the  $GPG_j$  in the function. Likewise, many paid information platforms on the internet have become free with the onset of post-pandemic life restrictions and access to knowledge has become easier. With this logic, the COVID-19 pandemic, as an independent variable ( $GPG_j$ ), can positively affect global public goods such as environment and knowledge, and negatively affect economic stability, which is an element of governance.

**Table 1. Change in Carbon Dioxide (CO<sub>2</sub>) Emissions  
(% Change of Data Based on Million Tonnes)**

Location	2002-2008 (Mean)	2009	2010-2019 (Mean)	2020
OECD - Total	0.06	-5.74	-0.52	-7.97
United States	-0.47	-7.09	-0.72	-9.65
European Union (28 countries)	-0.26	-7.37	-1.54	-9.82
European Union (27 countries, 2020)	-0.18	-7.07	-1.35	-9.73
Japan	-0.04	-4.78	-0.13	-3.03
Russia	0.76	-7.27	1.34	-5.12

Source: OECD (2022).

As a matter of fact, Table 1 shows that after the COVID-19 pandemic, carbon dioxide emissions decreased as a result of the slowdown in production activities and many vital activities. While there is a certain decrease in carbon dioxide emissions over time, there is an extraordinary decrease during the global economic crisis (2009). However, it is possible to say that the decrease in emissions during the pandemic period is more than the global economic crisis period (except for Japan and Russia). These data show that the COVID-19 pandemic, which is a public bad, reduces environmental pollution, which is another public bad.

**Table 2. Economic Growth and Unemployment Rates in Selected Countries  
and Country Groups**

Country Group or Country Name	GDP Growth (annual %)				Unemployment (% of total labour force) (modelled ILO estimate)			
	2005- 2008 (Mean)	2009	2010- 2019 (Mean)	2020	2005- 2008 (Mean)	2009	2010- 2019 (Mean)	2020
World	3.75	-1.31	3.17	-3.29	5.59	6.01	5.63	6.57
High income	2.31	-3.20	2.08	-4.49	6.07	7.97	6.74	6.49
Upper middle income	8.19	2.66	5.42	-0.71	5.65	5.99	5.70	6.77
Lower middle income	5.94	4.60	5.06	-3.42	5.36	5.21	5.13	6.61
Low income	6.00	4.00	2.50	0.62	4.86	4.84	4.90	5.62
European Union	2.30	-4.35	1.60	-5.96	8.21	9.13	9.39	7.05
United States	2.03	-2.54	2.30	-3.40	5.02	9.25	6.23	8.05

Japan	0.86	-5.69	1.26	-4.59	4.13	5.07	3.57	2.80
Russian Federation	7.07	-7.80	2.02	-2.95	6.60	8.30	5.57	5.59
China	12.00	9.40	7.68	2.35	4.47	4.72	4.53	5.00

Source: The World Bank (2022).

Table 2, on the other hand, reveals another situation that shows the external link between global public goods. Table 2 shows the economic growth rates and unemployment rates of selected countries and country groups in a certain period. In order to compare the periods of the global economic crisis (2009) and the COVID-19 pandemic (2020), the data of other years were averaged. It is understood from these data that there has been an economic shrinkage throughout the world during the pandemic period. It can be said that the economic recession during the pandemic period is more than the global economic crisis period. When we examine it specifically, we see that Japan and Russia were negatively affected economically during the pandemic period, but less than the global economic crisis. Table 2 also presents the fact that the economy of high-income countries declined more than low-income countries during the pandemic period. In addition, Table 2 also shows unemployment rates, which is an important indicator for economic stability. Accordingly, although unemployment increased throughout the world during the pandemic period, the increase in unemployment in high-income countries was less than in low- and middle-income countries. These data show that the COVID-19 pandemic, which is a public bad, can negatively affect the economic stability, which is a public good.

### 3.2. National Solutions to Global Public Goods in COVID-19 Practice

In addition to showing the external relations between global public goods, COVID-19 shows that the globalist discourses on the provision of these goods and solutions remain a theory. The most important indicators of this situation (mask wars between countries in the early days, tension in international relations, disinformation processes in order not to take responsibility, the increase in distrust in international organizations, and global inequality created by patenting and pricing of vaccines) are examined in detail below.

#### 3.2.1. The Mask Wars

In the first months of the COVID-19 pandemic, countries did not have enough health equipment, especially face masks, because they were caught off guard. For this reason, countries (especially developed countries) imposed restrictions on the export of health equipment, confiscated domestic stocks and began to seize face masks purchased by other countries, with a panicked of national selfishness. In April 2020, the Czech Republic seized the masks sent from China to Italy, and France seized the masks sent from China to Italy and Spain. Thereupon, the Swedish origin intermediary firm decided to send the orders via Belgium. Germany did not allow the export of masks to

Switzerland and confiscated these products. Masks and other protective products ordered by France and Germany were purchased at the airports by the USA with cash, and planes carrying supplies were enabled to go to the USA. On the other hand, in the USA, it was alleged that 3 million masks purchased by the state of Massachusetts were seized by an undisclosed federal government agency in New York harbour. In addition, US President at the time Donald Trump announced that if the 3M Company, which produces protective masks, does not stop its export, the cost of this will be great for the company (Anadolu Agency, 2020). While the mask wars caused the governments to engage in modern piracy, the discourses of the global public goods theory were forgotten. This shows that while the problems can be global, the solutions remain at the national level. In other words, the globalist solution proposals of the global public goods theory went bankrupt with the COVID-19 pandemic. Moreover, in the case of a global health crisis, all the values of the free market economy, which were defended in the past, can be violated. While marketism is defended in times of prosperity, tendencies of protectionism, nationalism and even (if not exaggerated) piracy can come to the fore in times of global health crisis. Desai (2003: 74) probably did not mean the mask wars when he said that the world is in the neo-medieval age in the provision of global public goods.

### **3.2.2. The Tension in International Relations**

The emergence of the pandemic has also led to an increase in tension in international relations. In April 2020, the state of Missouri in the USA sued the Chinese government for being unsuccessful and negligent in its fight against COVID-19. The lawsuit, filed in federal court by the Missouri Attorney General, alleges that the Chinese government lied, silenced whistleblowers, did little to stop the spread of the disease, and made the pandemic worse by hoarding masks. The high probability of failure of the lawsuit, which seeks compensation on the grounds that Missouri and its residents have suffered great economic damage, has been explained by experts. Because “[a] legal doctrine called sovereign immunity offers foreign governments broad protection from being sued in U.S. courts” (Reuters, 2020). The lawsuits and discourses in question have been nothing more than the product of domestic politics rather than global public goods sensitivity. Likewise, in the early stages of the pandemic, the USA and Chinese governments competed to blame each other for the origin of COVID-19 and the possibility of the virus being man-made (Deutsche Welle, 2020a). The situation shows that instead of producing a common solution to the pandemic within the framework of global public goods, the tensions over which country is the source of the “public bad” left their mark on the period.

### **3.2.3. The Disinformation**

However, other countries are not more innocent than China when it comes to disinformation. The former president of the USA, Donald Trump, said at his election meeting in Oklahoma in June 2020 that he had ordered the number of tests to be reduced so that the statistics on the outbreak would not paint a bad picture (Euronews, 2020). Although White House officials announced that the president was joking, the

probability of the news being true is not very low. In the same month, the deletion of figures related to COVID-19 and the cessation of publication of the data by the Brazilian government, and then the re-publishing of data with the decision of the Supreme Court (The Guardian, 2020) means that knowledge, which is another global public good, is interrupted. As a matter of fact, according to Laxminarayan and Malani (2011: 190), disease reporting is a global public good as well as disease eradication efforts: “Individual countries may fail to internalize the benefits of prompt reporting on the global spread of disease”.

### **3.2.4. The Increase in Distrust in International Organizations**

In the early days of the global health crisis, opinions that WHO could not manage the process correctly became widespread. Although WHO declared in January 2020 that the risk in China was very high at the national level and high at the regional and global level (WHO, 2020b: 23.01.2020) and declared the outbreak to be a public health emergency of international concern (WHO, 2020b: 31.01.2020), it did not recommend special screening at points of entry for this event, and did not recommend the application of any travel or trade restrictions (WHO, 2020a: 31.01.2020). On February 26, 2020, when COVID-19 cases exceeded 80,000 in 37 countries and the deaths were 2,762, the WHO Director-General announced that he was against the use of the word “pandemic” for COVID-19 on the grounds that it could signal that they could not control the virus and create an atmosphere of unnecessary fear (WHO, 2020c). However, on 11 March 2020, COVID-19 was characterized as a pandemic, and the number of confirmed cases in the world on that date was 118,319, while the death toll was 4,292 (WHO, 2020b: 11.03.2020).

While the trust in international organizations should have increased with the pandemic process, on the contrary, there has been a decrease. In July 2020, the USA under the Trump administration made an official application to leave the WHO. Trump’s justifications were allegations that WHO warned the world late about the dangers of COVID-19 and that it was under the control of the Chinese government. Trump also suspended payments to the WHO in April 2020, objecting to the USA making more contributions to the WHO than China (Deutsche Welle, 2020b). However, after the USA elections, the Biden administration stopped these decisions and completed the WHO payments that were suspended. The attempt of the USA to leave the WHO shows that the solutions within the framework of the global partnership proposed by the global public goods approach are not very valid in practice. However according to Kanbur (2001), more resources should be allocated to sectoral agencies on global public goods, and the WHO is an important example of this. Kanbur (2001: 14) suggests that resources should be clearly provided to the WHO to manage problems such as infectious disease control or encouraging basic vaccine research, on the grounds that WHO is more involved in country-specific health programs and is not enough in programs related to global public goods with cross-border externalities. Yamey et al. (2019), emphasizing that WHO’s legitimacy, convening power, and role in setting global norms and standards will help provide the overarching governance of global functions, also offer similar views.

The free-rider problem in traditional public finances can also arise in the case of global public goods, and this can be called the “global free-rider problem”. While many countries take an active role in the solution of global problems and bear the costs of this, the fact that some countries do not take part in the solution and do not bear the costs of this makes these countries the global free-rider. Moreover, the fact that these “idle” countries inevitably benefit from the positive activities of other countries, due to the non-excludability of the benefits of global public goods, strengthens the global free-rider problem. It is an example of the global free-rider that countries that do not sign the Kyoto Protocol are positively affected by the activities of other countries to restrain global warming and do not participate in its costs (such as limiting growth). As seen in the COVID-19 pandemic, the inadequacy of global solutions further increases the global free-rider problem. In the fight against the pandemic, many countries bear the economic and social costs by making full closure decisions and contribute to preventing the spread of the epidemic, while some countries set an example of the global free-rider by not taking these costs into account.

### **3.2.5. The Problem of Patenting Vaccines**

The patenting of COVID-19 vaccines and making them a priceable good has also been a very important practice in the disruption of the global public goods approach. If global infectious diseases are a “public bad” and trying to prevent the spread of these diseases is a “public good”, creating rivalry in the consumption of COVID-19 vaccine and exclusion from its benefits practically eliminates the meaning of discourses about global public goods. While the question of whether or not there should be property of knowledge is a separate topic of debates, if we consider the COVID-19 outbreak to be a global public issue, we must accept that the COVID-19 vaccine is also a global public good. However, contrary to globalist rhetoric, the practice of COVID-19 has introduced “vaccine nationalism”. Vaccine nationalism is related to the existence of nation-states interested in securing health products first in order to accelerate national recovery and maintain hegemonic interests (Hein & Paschke, 2020: 7). Vaccine nationalism, often associated with national control and ownership of vaccines, is the result of nationally-interested vaccine pursuits that may be to the detriment of other countries, such as supply agreements or export bans (Vanderslott vd., 2021: 2-3).

As it is known, World Trade Organization (WTO) has a Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement in order to reduce the barriers to international trade and to ensure that the procedures and measures regarding the enforcement of intellectual property rights do not constitute an obstacle to trade. With the increase of global health problems, the Doha Declaration was proclaimed by the WTO on 14 November 2001, and it was accepted that some provisions of the TRIPS Agreement could be bent in order to promote access to medicine for all, especially in the face of public health problems arising from HIV/AIDS, tuberculosis, malaria and other epidemic diseases (WTO, 2001). Of course, the emphasis in the Doha Declaration, such as “intellectual property protection is important for the development of new medicines”, “the TRIPS Agreement does not and should not prevent members from taking measures to protect public health” and “reiteration their commitment to the

TRIPS Agreement” are not overlooked. However, a similar approach has not been seen during the COVID-19 period. At a formal meeting of the Council for TRIPS on 23 February 2021, a proposal to waive certain provisions of the TRIPS Agreement for the prevention, containment and treatment of COVID-19 was discussed. The proposal, previously submitted by India and South Africa and supported by many underdeveloped countries, aimed to last for a specific number of years and until widespread vaccination worldwide and the majority of the world’s population was immune (WTO, 2021). However, the proposal was not accepted by the votes of the “leading” countries. Later, the same issue was on the agenda of the WTO many times, but the proposals were still not accepted. The collective action discourse of the global public goods debate has once again failed, and the true face of the globalization story has revealed.

A civil alliance called *The People’s Vaccine* has made demands to vaccinate low- and middle-income countries and end the COVID-19 pandemic through a call for urgent action signed by more than 130 prominent figures (former world leaders, scientists, humanitarians, faith leaders, etc.). Emphasizing pharmaceutical monopolies and inequality, the letter criticizes developed countries’ failure to abolish intellectual property rules on COVID-19 vaccine, testing and treatment. The demands of the letter can be summarized as follows (The People’s Vaccine, 2022): (a) vaccinating the majority of people and establishing a global roadmap to ensure sustained, timely and equitable access to medical technologies; (b) pooling all knowledge, data and technologies related to COVID-19 and suspending relevant intellectual property rules; (c) investments in research and development related to vaccine production and in establishing a global distribution network of the vaccine to all nations as a global public good; (d) to be provided free to the public, pricing COVID-19 vaccines, tests and treatments close to real cost to governments and institutions; and (e) increasing the scale of sustainable investment in public health systems of low- and middle-income country governments.

Moreover, UN Secretary-General António Guterres made the following statement at the Global Vaccine Summit in New York on 4 June 2020: “A COVID-19 vaccine must be seen as a global public good, a people’s vaccine” (United Nations, 2020). And finally, Jonas Salk, the inventor of the polio vaccine, replied in 1955 when journalist Edward Murrow asked him who owned the patent: “Well, the people, I would say. There is no patent. Could you patent the sun?” (Davis, 2021: 509). Maybe Dr. Salk ended the discussion about the vaccine patent years ago with this sentence.

Although governments provide vaccines to their citizens free of charge, it should not be forgotten that governments buy these vaccines from abroad via the taxes paid by the same citizens. The patenting of COVID-19 vaccines and making them a marketable commodity leads to differences in vaccine supply between developed and underdeveloped countries. The fact that rich countries have started to stockpile vaccine prognosticates that poor countries will not be able to reach a safe level in vaccination. Moreover, the promise of Oxford-AstraZeneca, one of the leading cheap vaccine projects, to give 64% of its own vaccines to developing countries, does not change this result (BBC News, 2020).



**Table 3. Share of People Vaccinated Against COVID-19 (% of Population)**

Country Group	Share of People with a Complete Initial Protocol	Share of People Only Partly Vaccinated	Total
High Income	74.62	4.89	79.51
Upper Middle Income	77.36	4.55	81.91
Lower Middle Income	52.31	8.41	60.72
Low Income	12.52	3.22	15.74
World	59.38	6.03	65.41

Source: Our World in Data (2022).

The fact that COVID-19 vaccines are not accepted as a global public good leads to inequity in vaccine distribution. In other words, the inequity in the international distribution of income is similar to the inequity in the international distribution of vaccines. Table 3 shows that 65.41% of the world population has been vaccinated against COVID-19. Only 15.74% of people in low-income countries have received at least one dose. This ratio is much higher in high-income and middle-income countries. This situation shows that the COVID-19 vaccine has been turned into a “private good” whose consumption is rivalry and whose benefit is excludable at the international level, rather than a “global public good”. This reveals that in critical periods, the “my country first” approach (Bollyky & Bown, 2020: 97) has replaced globalist theses.

Contrary to the statements in the public finance literature, the practice of the COVID-19 pandemic shows that the solution can be national when it comes to global public goods. Masks and healthcare equipment wars, international tensions, disinformation about the pandemic, questioning of trust in the WHO, and patenting of the COVID-19 vaccine reveal the necessity of discussing the issue of global public goods again and in a different dimension. While the practice of the COVID-19 pandemic is expected to raise the concept of global public goods, it can be stated that it has prepared the process of fall.

#### 4. Conclusion

During the COVID-19 pandemic, it is possible to evaluate the concept of global public goods from two aspects: the international relations and the economics.

From the perspective of international relations, the COVID-19 pandemic has revealed the fact that developed countries are very advanced in the arms industry and technology but fail in the fields of health and social services. While COVID-19 has caused people to be masked for their health, it has unmasked globalist actors. In the European Union (EU), which is considered as the pioneer of free movement and solidarity, border controls began between countries in the first year of the pandemic, and other EU countries were not willing to send health equipment to countries where the epidemic was widespread, especially to Italy and Spain. In the first months of the pandemic, the

“corona bond” discussions and disagreements between the leaders of EU member states weakened the hopes for a common solution. The only success of the EU, which started symbolic aid with the pandemic being partially brought under control, was “not to disintegrate”.

After COVID-19, nation states can take steps to become a prominent power again and the existence of economic/military alliances may become open to discussion. In other words, the COVID-19 pandemic process may be the first step in the transition “from a weak partnership to a strong loneliness”.

From the perspective of economics, the entry of health equipment into the black market and the sudden increase in their prices in the first months of the pandemic has once again shown the importance of the publicness of health services. The world has faced the fact that health services are too important to be left to the market mechanism.

The disruptions of the public-private partnership implemented in the health sector have manifested themselves more during the COVID-19 period. In the fight against a completely public infectious disease, the solution must also be public. For this reason, the profit motive in health services and the public-private partnerships that are its reflection have come to a dead end during the pandemic period. The pandemic has revealed the fact that social benefit is more important than the profit motive in health care. Therefore, the privatization practices of the new age required by the governance, which is a product of the neoliberal paradigm and accepted as a global public good, have reached questionable results.

The statement that the COVID-19 pandemic treats everyone equally without discriminating between rich and poor is not true. In the periods when the restrictions were imposed, the upper income groups did not have a survival problem due to the savings they had, while the lower income groups without savings faced serious economic problems. Although social welfare states and developed countries have tried to minimize this problem with social aid packages, the economy in underdeveloped countries has taken precedence over public health. As in the case of Turkey, the partial restrictions due to economic concerns caused workers to continue to work under great health risks.

The destruction caused by the pandemic in the economy has also changed the scope of the concept of “free market economy”. The concept now includes not only the freedom of entry and exit to the market, but also the freedom to produce and consume despite the health risk. In other words, production facilities and shopping centres continued to remain open in the pandemic neoliberal order. However, while individuals have the freedom to choose the method of the consumption (shopping) process by risking their health, they are not free to choose the method of the production process. Because the labour factor of production has to work in order to live.

COVID-19 has exposed not only the consequences of domestic income inequality, but also the consequences of international income inequality. The patenting and pricing of vaccines discovered as a result of scientific research to combat the pandemic removes its publicness and cross-border externality characteristics. Because, in order for the vaccines against COVID-19 to be a global public good, it should have non-

rivalry and/or non-excludability properties. However, the pricing and marketing of vaccines leads to partial exclusion from benefit and rivalry in consumption. In addition, for the vaccine to be a “global” public good, it must also have cross-border externalities. And as it is known, as long as the external effect of a good or service is not paid for, this is considered an externality. Otherwise, as long as it is paid for, it is not considered an externality. Therefore, the pricing of the vaccine in the fight against COVID-19 also removes the cross-border externality characteristic. This shows that the vaccine will not be a global public good as long as it is a patentable and marketable good. At the same time, this situation also eliminates the “free-rider aid” feature of global public goods as development assistants to underdeveloped countries.


The fact that the COVID-19 vaccine cannot be a global public good in practice contrary to the discourses and that countries entered a panicked selfish mood in the supply of health equipment during the first scarcity period shows that the solution to global problems remains at the national level and that the globalist theses (and its fiscal theory discourses) have failed.

The spread of the COVID-19 pandemic as a public bad is related to the weakest link, and thus the problem is global. However, efforts to find a vaccine in the fight against the pandemic as a public good are related to the best-shot, and the solution is not global in practice. Because the vaccine is needed to purchase by other countries in order to have global effects. This, in turn, becomes a national issue of countries due to the financing problem. The inability of other countries to produce the vaccine due to patents and similar protection methods also contributes to the fact that the solution remains at the national level. However, the capitalization of the vaccine in the fight against a global epidemic conflicts with the public good debates. Not only the research for the discovery of the vaccine, but also the supply of the vaccine should be considered as a global public good and the vaccine should be made available to the whole world. Then the solution to the global problem will be global as well. Otherwise, the era we live in will go down in history as a period in which only problems become global, but solutions become national.

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