



DOI: 10.22363/2313-0660-2025-25-4-668-683


EDN: HWBLLX

Research article / Научная статья

## The G20's Low-Carbon Development Agenda: A Historical Perspective and Key Concepts

Irina M. Popova 

Russian Presidential Academy on National Economy and Public Administration, Moscow, Russian Federation

 [popova-im@ranepa.ru](mailto:popova-im@ranepa.ru)

**Abstract.** The article analyses the transformation of the G20 agenda on climate, energy, and just transition from the earliest summits up to 2024. The relevance of the study stems from the fact that the G20 is one of the leading institutions of global economic governance, including in the field of climate policy. Examining the documents adopted by the leaders of member states, as well as those produced within the main ministerial cooperation tracks, makes it possible to identify the key factors and turning points in the transformation, strengthening, and expansion of the climate agenda within the institution, as well as the contradictions between members. The study employs the method of comparative analysis to assess the G20's activities in promoting low-carbon development, as well as content analysis of the final summit documents. The research demonstrates that the G20 plays an important role in the development of global governance in the field of low-carbon development. At the early summits, the priority issues were sustainable, inclusive, and equitable 'green' growth and recovery, and the need to consider climate impacts when designing policy was emphasized. Following the adoption of the Paris Agreement in 2015, climate issues, the energy transition, and decarbonization financing became separate areas and independent goals of the G20, effectively detached from the broader theme of economic growth. This approach, whereby emissions reduction is essentially separated from the need to ensure economic growth, reached its peak during Italy's presidency in 2021, when the G7, under pressure from the European Union (EU) and the United States, which had joined forces to promote their preferred vision of climate governance, attempted to transfer its decisions to the G20 agenda. However, such an approach, in which growth and decarbonization are treated as separate objectives, does not allow for full consideration of national contexts, as required by the Paris Agreement and previous G20 commitments. The existing contradictions within the G20, which are becoming increasingly pronounced, as well as the G7's desire to impose its decisions and agenda on the G20, are undermining the institution's effectiveness and jeopardize its legitimacy and leadership in ensuring low-carbon development.

**Key words:** energy transition, green growth, just transition, climate policy, carbon pricing, SDG7, UN 2030 Agenda, Paris Agreement

**Conflicts of interest.** The author declares no conflicts of interest.

**Funding sources.** The study was prepared on the basis of the RANEPА state assignment research programme.

**For citation:** Popova, I.M. (2025). The G20's low-carbon development agenda: A historical perspective and key concepts. *Vestnik RUDN. International Relations*, 25(4), 668–683. <https://doi.org/10.22363/2313-0660-2025-25-4-668-683>

© Popova I.M., 2025



This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License  
<https://creativecommons.org/licenses/by-nc/4.0/legalcode>

## Трансформация повестки «Группы двадцати» в сфере низкоуглеродного развития: историческая перспектива и основные понятия

И. М. Попова 

Российская академия народного хозяйства и государственной службы, Москва, Российская Федерация

✉ popova-im@ranepa.ru

**Аннотация.** Проанализирована трансформация повестки «Группы двадцати» (G20) по вопросам климата, энергетики и справедливого перехода с первых саммитов до 2024 г. Актуальность исследования определяется тем, что G20 является одним из ведущих институтов глобального экономического управления, в том числе в сфере климата, и изучение документов, принятых лидерами государств-участниц, а также в рамках основных треков министерского взаимодействия, позволяет выделить ключевые факторы и точки трансформации, усиления и расширения климатической повестки в институте, а также противоречия между членами. Использованы метод сравнительного анализа для оценки деятельности «Группы двадцати» в сфере продвижения низкоуглеродного развития и контент-анализ итоговых документов саммитов G20. Доказано, что «Группа двадцати» играет важную роль в развитии глобального управления в сфере обеспечения низкоуглеродного развития. На первых саммитах приоритетными были проблемы устойчивого инклюзивного справедливого «зеленого роста» и восстановления, подчеркивалась необходимость учета климатических последствий при разработке политики. С принятием Парижского соглашения в 2015 г. вопросы климата, энергетического перехода и финансирования декарбонизации выделились в отдельные направления и самостоятельные цели G20, фактически отделившись от тематики экономического роста. Пика такой подход, в котором сокращение выбросов фактически оторвано от необходимости обеспечивать рост экономики, пришелся на председательство Италии в 2021 г., когда «Группа семи» (G7), испытывая давление со стороны Европейского союза (ЕС) и США, объединившихся для продвижения собственного видения урегулирования проблем климата, попыталась перенести свои решения в повестку «Группы двадцати». Однако такой подход, в котором рост и декарбонизация рассматриваются как отдельные цели, не позволяет в полной мере учитывать национальные контексты, как того требуют Парижское соглашение и предыдущие обязательства «Группы двадцати». Уже существующие противоречия внутри G20, которые становятся все более глубокими, а также стремление «Группы семи» навязывать «Группе двадцати» свои решения и повестку подрывают эффективность института и ставят под угрозу его легитимность и лидерство в сфере обеспечения низкоуглеродного развития.

**Ключевые слова:** энергетический переход, зеленый рост, справедливый переход, климатическая политика, ценообразование на углерод, ЦУР 7, Повестка ООН — 2030, Парижское соглашение

**Заявление о конфликте интересов.** Автор заявляет об отсутствии конфликта интересов.

**Сведения о финансировании.** Исследование подготовлено в рамках выполнения научно-исследовательской работы государственного задания РАНХиГС.

**Для цитирования:** Попова И. М. Трансформация повестки «Группы двадцати» в сфере низкоуглеродного развития: историческая перспектива и основные понятия // Вестник Российского университета дружбы народов. Серия: Международные отношения. 2025. Т. 25, № 4. С. 668–683. <https://doi.org/10.22363/2313-0660-2025-25-4-668-683>

### Introduction

The Group of Twenty (G20) comprises the world's largest economies, which are responsible for three-quarters of global hydrocarbon emissions. Cooperation and the

adoption of coordinated decisions on energy and climate issues could contribute to achieving the goals outlined in the 2015 Paris Agreement (Kirton, 2020). The G20 plays an important role in the global governance of low-carbon

development, performing a range of functions. Coordinating decisions that take into account the interests of all Group members, and effectively implementing them, can significantly contribute to achieving the goals of the Paris Agreement (Nascimento et al., 2021).

Since the first leaders' meetings in 2008, issues such as ensuring 'green' growth, facilitating a just energy transition and achieving climate goals have been central to the institution's agenda (Larionova, 2022). The platform is an important format for coordinating members' positions, where decisions are harmonized ahead of the Conferences of the Parties to the UN Framework Convention on Climate Change (UNFCCC), and mandates are formulated for other international institutions to develop possible scenarios for the evolution of global climate governance and cooperation. Currently, the G20 is seeking compromises on the climate agenda between developed and developing countries, and between hydrocarbon exporters and importers. Under the influence of the Group of Seven (G7), climate risks are being integrated into the core G20 agenda on macroeconomic and financial regulation, with the active promotion of tax instruments for emission reduction and stricter regulatory tools. Developing countries, which hold the presidency in the group from 2022–2025, are attempting to ensure their interests are considered when choosing pathways and instruments for achieving the Paris Agreement goals, as well as when providing technology and financing.

The transformation of the G20 agenda can have a significant influence on key institutions and the strategies of its members. Therefore, it is important to analyze this agenda and understand which priorities are being set by various Group members under the influence of political and economic factors.

The climate agenda is one of the G20's main areas of cooperation, which is why a number of studies examined the G20's role in global climate regulation (Kirton & Warren, 2022; Unger & Thielges, 2021), including examining this role through the lens of historical institutionalism (Johnstone, 2021) and its interactions with other institutions. The aim of this study is to highlight the main factors driving the transformation and development of the G20's low-carbon development agenda and the key concepts and terms used by the Group in official documents, which represent a compromise among all members.

## Methodology

The present study employs the following research methods. The author applies an analytical approach to studying the documents, decisions, and declarations of the G20 summits from 2008 to 2024, systematizing information and highlighting trends in the transformation of the low-carbon development agenda.

A historical-institutional approach is also employed. The study is conducted in a historical perspective, which allows tracing the evolution of the G20's climate and energy agenda depending on the political and economic contexts of different periods (crises, the Paris Agreement, the COVID-19 pandemic, etc.).

The author employs a comparative approach in assessing the activities of international institutions. The author then compares the G20's approaches and decisions with those of other international formats, such as the Group of Seven (G7), the UNFCCC, the Paris Agreement, as well as with the national strategies of individual member countries.

The author also resorted to a content analysis. This involved a systematic analysis of official G20 documents, including leaders' and ministerial

declarations, programs, and action plans. This method was used to identify key concepts, terms, and priorities reflecting changes in concepts ('green growth,' 'just transition,' 'low-carbon development,' etc.).

The study includes the elements of comparative political analysis. The author analyzes the differences in the positions of developed and developing countries, the influence of presiding states on agenda formation, and the internal contradictions within the institution that affect its effectiveness and legitimacy.

Thus, the study combines qualitative methods of political and institutional analysis, based on documentary and comparative research, with the application of content analysis of official source texts and a historical-chronological approach to the processes under study.

### **Low-Carbon Development at the First G20 Summits**

Issues of sustainable and low-carbon development have entered the G20 agenda virtually since the very first high-level meetings. As was established at the second summit, held in London (UK) in 2009, one of the G20's cooperation priorities is to develop solutions that will stimulate economic growth whilst also accounting for its climate aspects.<sup>1</sup> The transition to low-carbon technologies, meaning the rejection of fossil fuels, became an important issue on the agenda of energy-importing

countries due to rising oil and other fuel prices, and was reflected in the agendas of international institutions, including the G20.

At the 2009 Pittsburgh summit (USA), Group members agreed to ensure 'green' and sustainable growth, invest directly in clean energy and energy efficiency, and assist developing countries with financing and technology. The issue of supporting developing countries in their low-carbon transition also entered the G20 agenda almost from the outset, but gained particular relevance after the Paris Agreement was adopted and climate goals received increased global attention. A significant milestone was the commitment adopted in Pittsburgh, which was subsequently repeated at almost every summit, to gradually phase out inefficient fossil fuel subsidies.<sup>2</sup> At the 2010 summit in Toronto (Canada), the low-carbon development agenda essentially fully reiterated the decisions of the previous summit.<sup>3</sup>

The 2010 Seoul summit (Republic of Korea) was primarily dedicated to sustainable recovery and growth. The 'green' component of this recovery became central. Besides reaffirming commitments made at previous summits, leaders promised to achieve a "result on emission reduction, increased policy transparency, increased financing, technology development and transfer, adaptation, and forest conservation."<sup>4</sup>

At the 2011 summit in Cannes (France), the G20 members committed to encouraging the

<sup>1</sup> Global Plan for Recovery and Reform: Statement Issued by the G20 Leaders. London, April 2, 2009 // G20 Research Group, University of Toronto, University of Toronto. URL: <http://www.g20.utoronto.ca/2009/2009communique0402.html#recovery> (accessed: 18.03.2024).

<sup>2</sup> G20 Leaders Statement: The Pittsburgh Summit. September 24–25, 2009, Pittsburgh // G20 Research Group, University of Toronto, University of Toronto. URL: <http://www.g20.utoronto.ca/2009/2009communique0925.html> (accessed: 18.03.2024).

<sup>3</sup> The G20 Toronto Summit Declaration. Toronto, June 27, 2010 // G20 Research Group, University of Toronto, University of Toronto. URL: <https://www.g20.utoronto.ca/2010/to-communique.html> (accessed: 06.11.2024).

<sup>4</sup> G20 Seoul Summit Leaders' Declaration. Seoul, November 12, 2010 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2010/g20seoul.html> (accessed: 18.03.2024).

implementation of low-carbon development strategies in member countries and beyond.<sup>5</sup> Leaders promised to ensure the swift operationalization of the 'Green Climate Fund.'<sup>6</sup>

At the 2012 Los Cabos summit (Mexico), the key commitments from previous summits were reaffirmed, and mechanisms for mobilizing public and private investment in inclusive 'green' growth in developing countries were discussed (Goodliffe & Sberro, 2012).

At the 2013 St. Petersburg summit (Russia), the G20 members pledged to support the development of more environmentally friendly and energy-efficient technologies to enhance the efficiency of energy markets.<sup>7</sup> The important role of natural gas as a less carbon-intensive fuel for facilitating the transition was noted. A commitment was also made to cooperate with international organizations in the fields of clean energy, energy efficiency, and technology.

The decisions on low-carbon development adopted in Brisbane (Australia) in 2014 were aimed at ensuring the success of the climate conference scheduled for 2015 in Paris. Commitments to phasing out fossil fuel subsidies, increasing energy efficiency and ensuring 'green' growth were also reaffirmed at the summit.<sup>8</sup>

At the 2015 Antalya summit (Türkiye), G20 members reaffirmed the goal,<sup>9</sup> formulated in the Lima Call for Climate Action, of limiting the rise in global average temperature to no more than 2° Celsius.<sup>10</sup>

### **Developments in the post-Paris Agreement Agenda**

Following the adoption of the Paris Agreement in 2015, the climate aspect of the low-carbon development agenda was based on its goals (Sainsbury & Wurf, 2016). At the 2016 meeting in Hangzhou (China), leaders pledged to implement a sustainable development agenda consisting of three components: achieving the Sustainable Development Goals, the Paris goals, and implementing the Addis Ababa Action Agenda.<sup>11</sup> An important decision was the commitment to minimize the environmental impact of extracting, transporting and processing natural gas as a less carbon-intensive type of fossil fuel.<sup>12</sup>

Recognizing gas as a sustainable alternative for the transitional period of the decarbonization process at the G20 level also implied an agreement that national transition plans could include and be implemented by replacing coal with gas, gradually scaling up and developing

<sup>5</sup> Cannes Summit Final Declaration — Building Our Common Future: Renewed Collective Action for the Benefit of All. Draft of November 4. Cannes, November 4, 2011 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2011/2011-cannes-declaration-111104-en.html> (accessed: 18.03.2024).

<sup>6</sup> Ibid.

<sup>7</sup> G20 Leaders' Declaration. September 6, 2013, St Petersburg // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2013/2013-0906-declaration.html> (accessed: 18.03.2024).

<sup>8</sup> G20 Leaders' Communiqué. Brisbane, November 16, 2014 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2014/2014-1116-communicue.html> (accessed: 18.03.2024).

<sup>9</sup> G20 Leaders' Communiqué. Antalya, Turkey, November 16, 2015 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2015/151116-communicue.html> (accessed: 18.03.2024).

<sup>10</sup> Decision –/CP.20. Lima Call for Climate Action // UNFCCC. December 11, 2014. URL: [https://unfccc.int/files/meetings/lima\\_dec\\_2014/application/pdf/auv\\_cop20\\_lima\\_call\\_for\\_climate\\_action.pdf](https://unfccc.int/files/meetings/lima_dec_2014/application/pdf/auv_cop20_lima_call_for_climate_action.pdf) (accessed: 18.03.2024).

<sup>11</sup> Addis Ababa Action Agenda of the Third International Conference on Financing for Development // The United Nations. July 15, 2015. URL: [https://sustainabledevelopment.un.org/content/documents/2051AAAA\\_Outcome.pdf](https://sustainabledevelopment.un.org/content/documents/2051AAAA_Outcome.pdf) (accessed: 18.03.2024).

<sup>12</sup> G20 Leaders' Communiqué: Hangzhou Summit. Hangzhou, September 5, 2016 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2016/160905-communicue.html> (accessed: 18.03.2024).



‘green’ energy technologies, and accumulating sufficient investments for their scaling and future implementation against a backdrop of consistent emission reduction. The decision adopted during China’s presidency can be considered historic, as it practically confirmed the G20’s adherence to the principle of common but differentiated responsibilities and capabilities, and consequently, the need to consider national circumstances when choosing the trajectory of what is now called ‘energy transition’ (Yu, 2017).

Following Donald Trump’s victory in the 2016 US presidential election, the country announced its withdrawal from the Paris Agreement.<sup>13</sup> Such a move by the largest economy and emitter was expected to undermine efforts to harmonize and achieve the agreement’s goals, as well as impose restrictions on the development of the G20 agenda (Larionova, 2017). However, the climate agenda in the Group continued its development, and leaders adopted specific decisions, explicitly mentioning that the commitments being made did not apply to the USA. For example, at the 2017 Hamburg summit, leaders emphasized that they were jointly committed to “reducing greenhouse gas emissions through the development of innovation in sustainable and clean energy and energy efficiency.”<sup>14</sup> Significant attention was paid to the financing of the climate and energy transition. A commitment was made to increase resources and enhance the transparency of climate program financing, and

to increase funding by developed countries for programs in developing countries for both emission reduction and economic adaptation to climate change (Fues, 2017). The G20 members once again emphasized the need for developed countries to fulfill their commitment to mobilize USD 100 billion per year by 2020 for financing adaptation and climate change mitigation in developing countries, and their intention to continue fulfilling the commitment until 2025 (Kirton & Warren, 2021). This decision was repeatedly reiterated in the final documents, but the stated goal for climate program financing was not achieved.

At the 2018 Buenos Aires summit (Argentina), all members except the USA reaffirmed the irreversibility of the Paris Agreement and committed to fully implementing it in accordance with the principle of common but differentiated responsibilities (Nahón, 2018). Leaders called for considering various scenarios for energy reform and transformation that combine economic growth with reducing greenhouse gas emissions.<sup>15</sup>

At the 2019 Osaka summit (Japan), member countries once again actively discussed issues of climate program financing, including ways to mobilize public and private financing and measures to enhance coherence between them, as well as the innovations required for low-emission development.<sup>16</sup> The final declaration recognized the role of all energy sources and technologies in the energy balance and the various possible national pathways for achieving emission reduction in the energy sector. Despite Japan

<sup>13</sup> President Trump Announces U.S. Withdrawal from the Paris Climate Accord // White House (Archive). June 1, 2017. URL: <https://trumpwhitehouse.archives.gov/articles/president-trump-announces-u-s-withdrawal-paris-climate-accord/> (accessed: 18.03.2024).

<sup>14</sup> G20 Leaders’ Declaration: Shaping an Interconnected World. July 8, 2017, Hamburg // G20 Research Group, University of Toronto. URL: <https://www.g20.utoronto.ca/2017/2017-G20-leaders-declaration.html> (accessed: 18.03.2024).

<sup>15</sup> 2018 Buenos Aires Summit. G20 Leaders’ Declaration: Building Consensus for Fair and Sustainable Development // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2018/2018-leaders-declaration.html> (accessed: 18.03.2024).

<sup>16</sup> G20 Osaka Leaders’ Declaration. Osaka, Japan, June 29, 2019 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2019/2019-g20-osaka-leaders-declaration.html> (accessed: 18.03.2024).

being a member of the G7, the G20 emphasized the role of all possible energy sources in forming energy matrices, in accordance with the principle of considering national contexts and pathways<sup>17</sup>. Although Japan is a member of the G7, which has a much less flexible approach, emphasizing the idea of a complete carbon neutralization and a comprehensive transition to renewable energy sources, during its G20 Presidency, in line with the principle of taking into account national contexts and development paths, the role of all possible energy sources in shaping energy matrices was emphasized. Attention was also given to advanced technologies for reducing emissions, including hydrogen, as well as carbon capture, utilization and storage mechanisms (Larionova, 2019).

The year 2020 and Saudi Arabia's presidency of the G20 were marked by efforts to combat the coronavirus infection and its consequences. Despite facing challenges of a completely different level and nature, the final summit documents contained decisions concerning low-carbon development (Luckhurst, 2021). Leaders stressed their commitment to "protecting the planet and creating a more environmentally sustainable and inclusive future for all people" in the course of the post-pandemic recovery.<sup>18</sup> As part of implementing one of the priorities for Saudi Arabia's presidency, the G20 members launched the Circular Carbon Economy Platform, based on the 4R principles (reduce, reuse, recycle, recover), recognizing the particular importance and ambition to reduce greenhouse gas emissions (Johnstone, 2021).

### **The Growing Importance of the Low-Carbon Development Agenda under Pressure from the G7**

Issues related to the energy transition, combating climate change, and low-carbon development in general were central to Italy's G20 presidency in 2021.<sup>19</sup> The goal of achieving carbon neutrality by mid-century or around mid-century was confirmed. This wording was a compromise, as the G20 members had developed their low-emission development strategies and nationally determined contributions based on different planning horizons. The G20 members also committed to reducing emissions over the next decade and to formulate or, where necessary, update nationally determined contributions (NDCs) by 2030 and present long-term strategies. Following this decision and the Coordination Summit (CS) held in Glasgow, many G20 members did indeed update their NDCs, specifying their targets for 2030 and, in some cases, even making them more ambitious.

In 2021, a commitment was made to develop national economic recovery plans that give special attention to emissions reduction and adaptation.<sup>20</sup> The European Union (EU) has adopted an approach that places low-carbon transformation at the heart of its post-crisis recovery strategy. In 2021, the EU's multiannual financial framework (2021–2027) was also approved, which also allocates significant resources to the implementation of decarbonization measures. As a member of the EU and chair of the EU Multiannual Financial Framework (2021–2027), which also allocates

<sup>17</sup> G20 Osaka Leaders' Declaration. Osaka, Japan, June 29, 2019 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2019/2019-g20-osaka-leaders-declaration.html> (accessed: 18.03.2024).

<sup>18</sup> Leaders' Declaration. Riyadh Summit, November 21, 2020 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2020/2020-g20-leaders-declaration-1121.html> (accessed: 18.03.2024).

<sup>19</sup> Greco E. The Italian G20 Presidency: A Post-Summit Assessment // The International Spectator. 2021. URL: <https://www.iai.it/en/pubblicazioni/c05/italian-g20-presidency-post-summit-assessment> (accessed: 06.11.2024).

<sup>20</sup> G20 Rome Leaders' Declaration. Rome, October 31, 2021 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2021/211031-declaration.html> (accessed: 18.03.2024).

significant resources to the implementation of decarbonization measures. Italy, as a member of the EU and chair of the G20, promoted the inclusion of this aspect in the Group's agenda. The need to ensure that climate goals are taken into account in post-crisis recovery strategies has been actively promoted by international institutions, primarily the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD) and the World Bank, which actively cooperated with Italy during its G20 presidency.

The G20 members also pledged to increase funding for adaptation in developing countries,<sup>21</sup> which often receives much less attention than the need to reduce emissions, even though the effects of climate change are already being felt and developing countries are facing serious challenges to their socio-economic development. The issue of adaptation financing issues became part of the institute's agenda during the presidencies of developing countries after the adoption of the so-called 'Glasgow Pact.'

In 2021, methane was also mentioned separately for the first time in the final documents as a significant factor in climate change. The Rome Declaration emphasizes that reducing methane emissions could be one of the fastest and most cost-effective ways to ensure that the Paris Agreement targets are met.<sup>22</sup>

The methane agenda was continued with the adoption of the methane initiative at the COP in Glasgow. Including methane in the agenda reflects the interests of the EU, which were promoted by Italy as chair of the G20. It was

the EU that initiated the methane initiative and established the International Methane Emissions Observatory, which are mentioned in the declaration, and proposed its methods for assessing emissions as global standards. The declaration also focused on cooperation to improve the collection, verification, and measurement of statistics for greenhouse gas inventories, ensuring high-quality scientific data.

The decision to "end international public financing for new coal-fired power projects in third countries,"<sup>23</sup> included in the final documents, caused serious disagreements between the G7, on the one hand, and Russia, China, India, and South Africa, on the other. In line with discussions on phasing out coal that have been taking place in many international forums, including the G20, developed economies have been trying to lobby for a commitment to phase out coal in the energy sector. In turn, countries whose economies are heavily dependent on coal consumption or exports have opposed such wording. As a result, at the COP in Glasgow, mainly under pressure from India, which took a principled position on this issue, the wording on phasing out coal was transformed into a commitment to gradually reduce its use.<sup>24</sup> The G20 agreed to stop investing in new coal-fired power generation capacity in other countries.<sup>25</sup> In other words, countries will determine the fate of coal and the pace of its reduction in their own national economies, retaining the right to export it but without the ability to invest in new foreign projects based on the burning of this hydrocarbon.

<sup>21</sup> G20 Rome Leaders' Declaration. Rome, October 31, 2021 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2021/211031-declaration.html> (accessed: 18.03.2024).

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

<sup>24</sup> Decision –/CP.26. Glasgow Climate Pact // UNFCCC. November 10, 2021. URL: [https://unfccc.int/sites/default/files/resource/cop26\\_aup\\_2f\\_cover\\_decision.pdf](https://unfccc.int/sites/default/files/resource/cop26_aup_2f_cover_decision.pdf) (accessed: 06.11.2025).

<sup>25</sup> G20 Rome Leaders' Declaration. Rome, October 31, 2021 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2021/211031-declaration.html> (accessed: 18.03.2024).



With the support of the IMF and the OECD, Italy, as the chair of the G7, also attempted to lobby for the inclusion of carbon pricing on the agenda as a tool for reducing emissions. This decision was reflected in the final documents of the 2021 G7 summit. However, the G20 failed to secure the inclusion of a similar specific commitment. The Rome summit declaration contained a reference to the need for a broad set of measures for decarbonization: investment in sustainable infrastructure and innovative technologies for decarbonization and the circular economy; a wide range of fiscal, market, and regulatory instruments to stimulate the transition to clean energy, including the use of carbon pricing (where appropriate) with mandatory targeted support for the most vulnerable populations.<sup>26</sup> The inclusion of pricing as an instrument for reducing emissions is controversial and meets with resistance, not only in developing countries. In the US and Australia, for example, there are no nationwide instruments for direct price formation, nor are there any plans to introduce them. An important milestone in the development of the low-carbon agenda was the inclusion of a pillar dedicated to protecting the planet into the G20 Action Plan. Amidst debates over possible measures to decarbonize the economy and their consequences, international organizations, primarily the IMF, were tasked with conducting a thorough analysis of the risks and opportunities of various low-carbon development models, in order to assess the costs of transition and the consequences of its absence or overly slow pace.<sup>27</sup>

The Rome summit, chaired by Italy and held on the eve of the UN Climate Change Conference, was a turning point in the development of the G20's low-carbon agenda. This was due to two factors.

Firstly, in the run-up to and during Italy's presidency, several factors influenced the agenda. The adoption of the European Green Deal by the European Union in 2019 and the presentation of the *Fit for 55* package<sup>28</sup> by the European Commission to implement its goals provided for the strengthening of climate regulation instruments and the tightening of standards and requirements for carbon intensity, and a regulation on a cross-border carbon adjustment mechanism was also proposed.

Secondly, at the end of 2020, Democrat Joseph Biden won the US presidential election. He almost immediately brought the US back into the Paris Agreement, as his party's program took a much more serious approach to climate change and proposed various measures to encourage decarbonization. The UK then hosted the UN Climate Change Conference in Glasgow in 2021, so it was also focused on climate issues to ensure the success of the meeting.

Thus, the G7 members also conveyed their emphasis on climate goals and CO<sub>2</sub> emissions regulation to the G20 agenda. Despite facing serious resistance from developing countries, they were still able to include the most important priorities in the Group's documents in one form or another, albeit occasionally not in the form of specific commitments.

<sup>26</sup> G20 Rome Leaders' Declaration. Rome, October 31, 2021 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2021/211031-declaration.html> (accessed: 18.03.2024).

<sup>27</sup> Ibid.

<sup>28</sup> *Fit for 55* is a package of EU legislative initiatives designed to reduce greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. The package includes a series of laws in areas such as energy, transport, and buildings, with the aim of making the EU climate neutral by 2050, while ensuring a fair and competitive transition. See: *Fit for 55* // European Council. Council of the European Union. URL: <https://www.consilium.europa.eu/en/policies/fit-for-55/> (accessed: 12.04.2025).

By the end of 2021, the G20 had moved away from the position recognized in 2016 and confirmed in subsequent years, including under the presidencies of Japan and Saudi Arabia, which recognized the importance of using the widest possible range of fuels and technologies, taking into account national conditions, as well as implementing various energy transition options based on the 3E+S concept (energy security, economic efficiency, and environmental protection plus reliability). Issues of just transition, energy security, and green growth have given way to decarbonization. Whereas climate considerations used to be taken into account in ensuring inclusive development, reducing emissions has now become the key objective. This approach does not allow for the implementation of the principle of common but differentiated responsibilities, taking into account national contexts, no matter how much leaders proclaim this in their final documents.

### **Developing Countries' Presidencies as an Opportunity to Consolidate Their Interests on the G20 Agenda**

Starting in 2022, the G20 entered a long period of presidencies held by developing countries. Indonesia, India, Brazil, and South Africa took the lead in 2022, 2023, 2024, and 2025, respectively. This gave them the opportunity to try to promote the priorities of developing countries in the field of low-carbon development within the G20 agenda, ensure that their interests and needs are taken into account more effectively, and reduce the dominance of the developed G7 countries in shaping the institution's agenda.

Developing countries are primarily interested in attracting international financing from any source — whether private, public, mixed, or provided by international institutions

and development banks — to ensure their decarbonization, and they also need technology. In addition, they need to ensure that differentiated responsibilities are taken into account in practice, in accordance with national contexts, and not just declared on paper. Finally, developing countries are interested in returning to the aspect of green, fair, inclusive, and sustainable growth, in which climate transformation would help them ensure development, rather than hindering and slowing it down and/or creating new dependencies, for example, on technology. The issue of energy security and how to ensure it by all available means is once again being discussed in the G20.

In the 2022 agenda, chaired by Indonesia, issues pertaining to low-carbon development were given a high level of prominence. In light of the potential risks posed by climate change to the country, Indonesia has started paying much greater attention to climate issues in its national policies (Umar & Indrayani, 2022). The country was facing a serious shortage of funding and the necessary technologies, which could only be obtained from international partners. Indonesia used its presidency of the G20 to enhance the visibility of its efforts and plans to combat climate change on the international stage, confirming its status as a reliable and responsible partner that is genuinely interested in transforming approaches to this area with sufficient support (Larionova, 2023).

As part of its G20 presidency in 2022, Indonesia has included the financing of the energy transition in developing countries, and therefore its own, among the institution's priorities. One of the three main priorities is the transition to low-carbon energy systems, with a particular focus on energy security. The G20 Leaders' Declaration emphasized the need for "rapid transformation and diversification of energy systems, strengthening energy

security and sustainability, and market stability by accelerating and ensuring the transition to clean, sustainable, equitable, affordable, and inclusive energy and the inflow of sustainable investments.”<sup>29</sup> The need to support developing countries, especially the most vulnerable, in ensuring their access to affordable, sustainable, and modern energy, the latest technologies, technological cooperation, and financing in the energy sector was recognized.<sup>30</sup>

The G20 leaders also pledged to “accelerate the transition process and ensure the achievement of climate goals by strengthening energy supply chains and energy security, as well as diversifying energy matrices and systems.”<sup>31</sup> They committed to scaling up climate-neutral electricity generation, including renewable energy sources, carbon capture and storage technologies. Overall, the energy agenda at the summit in Indonesia was built around Sustainable Development Goal 7 (SDG 7), “Ensure access to affordable, reliable, sustainable, and modern energy for all.”<sup>32</sup>

At the 2022 Bali summit (Indonesia), leaders recognized the urgent need to mobilize financing, including a significant increase in support for developing countries. They expressed their support for continuing discussions on a new collective climate finance goal of USD 100 billion per year for developing countries.<sup>33</sup> The declaration also included a reminder of the Glasgow Climate Pact, which calls on developed countries to double their adaptation finance for developing countries. Developing and least developed countries need to attract funding not only for emission reduction projects, but also for climate change adaptation,

as they are already feeling the effects of these changes and need to adapt to them. In addition, the G20 members acknowledged the macroeconomic risks associated with climate change and agreed to continue discussing the costs and benefits of various transitions.<sup>34</sup>

Thus, as chair of the G20, Indonesia contributed to the inclusion in the agenda of clearer commitments on financial support for developing countries in their low-carbon development and energy transition, paying considerable attention to issues of energy security and access to energy in these countries. The energy transition goals were formulated in line with SDG 7, which focuses on ensuring the development of and universal access to sustainable energy, rather than decarbonization. In this regard, the G20 leaders pledged to take measures to “ensure an orderly, fair, and affordable transition period” and to finance “sustainable and inclusive, environmentally sound, and equitable transitions.”<sup>35</sup>

The wording on coal included into the final declaration of the Bali summit also reflects the interests of Indonesia and other developing countries to a greater extent. It refers to a “phased phase-out” of coal and recognizes the need for support for a just transition, i.e., international assistance and support. Attracting investment in the gradual phase-out of coal for power generation was Indonesia’s top priority, and it succeeded in including commitments to finance energy transitions and technology transfer in the text of the final documents. The terms ‘just,’ ‘inclusive’ and ‘sustainable’ in the context of energy transition have returned to the agenda.

<sup>29</sup> G20 Bali Leaders’ Declaration. Bali, November 16, 2022 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2022/221116-declaration.html> (accessed: 18.03.2024).

<sup>30</sup> Ibid.

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

<sup>33</sup> Ibid.

<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

An entire section of the 2023 Delhi Declaration was devoted to the transition to clean, sustainable, equitable, affordable, and inclusive energy. The G20 members committed to accelerating the transition to such an energy system, following different paths, in order to ensure strong, sustainable, balanced, and inclusive growth, and to achieve climate goals (Mahida & Chauhan, 2023). Particular attention was paid to the needs, vulnerabilities, priorities, and different national circumstances of developing countries.<sup>36</sup>

In 2024, the main themes in the area of low-carbon development were a fair and inclusive energy transition, ways to accelerate the financing of energy transformations, the social dimension of the energy transition, and prospects for innovation in the field of sustainable fuels.<sup>37</sup>

### **Systematization of the Terms and Concepts Used in the Agenda**

The documents adopted by the G20 leaders and ministers use different terminology to describe the set of measures aimed at ensuring low-emission economic development. The declarations agreed upon at the first high-level summits of the Group since 2008 use the terms ‘green recovery’ and ‘green economy.’ These concepts are mentioned in the documents following the summits in Pittsburgh, London, and Toronto. The focus of the first summits was on measures to overcome the 2008 financial crisis, so the emphasis was on actions to restore economies. The ‘green’ aspect of such a recovery emphasized the fact that it should take into account the problem of climate change and not harm the environment as a whole. Starting with

the Seoul summit in 2010, the term ‘green growth’ appeared in G20 documents, implying that technologies that ensure low or zero emissions could become the basis for economic growth. Documents from the French presidency (2011) also contain this concept.

Following the summits in Los Cabos (2012) and St. Petersburg (2013), the term ‘green growth’ was supplemented with the adjective ‘inclusive.’ Pursuing a policy of inclusive green growth means ensuring economic growth, environmental protection, and social integration, which complement and reinforce each other (Kim & Chung, 2012). An important aspect of inclusiveness has also been the issue of support for developing countries. The Los Cabos Summit Declaration states that “developing countries should have access to institutions and mechanisms that can facilitate knowledge sharing, resource mobilization, and technical and institutional capacity building for the development and implementation of inclusive green growth strategies and policies.”<sup>38</sup>

Since 2014, the concepts of a ‘green’ economy, recovery, and growth have ceased to be used in texts adopted by the Group’s leaders and ministers. Addressing climate change, improving energy efficiency, and developing clean technologies ceased to be a significant aspect of ensuring recovery and growth and became a fully-fledged independent policy goal of the institution (Kokotsis, 2017). This change in approach correlates with parallel processes within the UNFCCC. In 2014 and 2015, active preparations were underway for the Paris Conference of the Parties, at which a new international agreement on combating climate change was to be signed, and in this regard,

<sup>36</sup> G20 New Delhi Leaders’ Declaration. New Delhi, India, September 9, 2023 // G20 Research Group, University of Toronto. URL: <https://www.g20.utoronto.ca/2023/230909-declaration.html> (accessed: 18.03.2024).

<sup>37</sup> G20 Sherpa Track: Energy Transitions // G20. URL: <https://g20.org/track/energy-transitions/> (accessed: 25.05.2024).

<sup>38</sup> G20 Leaders Declaration. Los Cabos, 18–19 June 2012 // G20. URL: [https://g20.org/wp-content/uploads/2024/10/G20\\_Mexico\\_2012\\_communique-1.pdf](https://g20.org/wp-content/uploads/2024/10/G20_Mexico_2012_communique-1.pdf) (accessed: 06.11.2024).

this agenda came to the forefront of interaction and cooperation within various international institutions (Kirton & Kokotsis, 2015).

With the development and operationalization of important terms from the Paris Agreement, the texts following the meetings of G20 leaders and ministers began to use them predominantly. The declarations of the summits in Hamburg, Riyadh (Basangov & Ignatov, 2019), Rome, and Bali, the term “low greenhouse gas emissions development” is used. The term “low-carbon development” is essentially a shorter version of this term used by the G20 and the parties to the Paris Agreement. Adopting and presenting long-term strategies to ensure such development is an integral component of the G20 countries’ participation in the Paris Agreement.

The terms “green inclusive economy” and “sustainable and inclusive, environmentally friendly and equitable transitions” have returned to the texts of the Bali summit documents. In recent years, issues of inclusiveness and fairness, both in the domestic policies of states and in relations between countries, have once again come to the forefront of the G20 agenda, as sustainable growth cannot be achieved without protecting the interests of the most vulnerable groups.

In the energy sector, one of the main concepts has been the energy transition. It was first mentioned in the documents of the G20 leaders in 2017 following Germany’s presidency. Since then, it has become an integral part of the G20 narrative. During Indonesia’s presidency in 2022, special attention was paid to “clean, sustainable, fair, affordable, and inclusive energy transitions.” The guiding principles of the Bali Pact, which

was adopted at the 2022 summit, include the following measures:

- implementing and revising frameworks to improve decision-making processes,
- enhancing energy security, stability, and market accessibility,
- ensuring sustainable and reliable infrastructure and energy supply systems,
- improving energy efficiency,
- diversifying energy systems and energy source matrices,
- catalyzing and scaling up sustainable and inclusive investments,
- cooperating in mobilizing all sources of financing,
- expanding access to affordable, innovative, and smart low- and zero-emission technologies,
- creating and strengthening innovation ecosystems to stimulate the research, development, demonstration, deployment, and adoption of new technologies.<sup>39</sup>

Also, during Indonesia’s chairmanship in 2022, the Roadmap (“Decade of Action: Bali Energy Transition Roadmap”), which sets out three priorities for energy transition policy: ensuring energy access, scaling up smart and clean energy technologies, and promoting clean energy financing.

The summits in India and Brazil in 2023 and 2024, as well as South Africa’s chairmanship in 2025, have cemented the concept of a “just energy transition” in the institute’s agenda, which involves taking into account national contexts and conditions, the responsibility of developed countries to provide financing and technology, and the impact of industrial and trade policy measures on the interests of developing economies.<sup>40</sup>

<sup>39</sup> Bali Compact. G20 Energy Transitions Ministers’ Meeting. Bali, September 2, 2022 // G20 Research Group, University of Toronto. URL: <https://g20.utoronto.ca/2022/220902-bali-compact.html> (accessed: 06.11.2024).

<sup>40</sup> Decade of Actions: Bali Energy Transitions Roadmap. G20 Energy Transitions Ministers’ Meeting. Bali, September 2, 2022 // G20 Research Group, University of Toronto. URL: <http://www.g20.utoronto.ca/2022/220902-energy-roadmap.html> (accessed: 18.03.2024).



## Conclusion

Low-carbon development issues have been on the G20 agenda since practically the very first summit. Over time, the topic has evolved, with new commitments being made in the areas of energy, sustainable green growth, and climate policy aimed directly at reducing greenhouse gas emissions. Commitments to phase out fossil fuel subsidies, develop sustainable and clean energy based on alternative sources, provide all types of financing for climate and energy transitions and the introduction of clean technologies, and ensure financing for the decarbonization of developing countries are repeated year after year.

At the first summits, the priority was on achieving sustainable, inclusive, and equitable green growth and recovery, and the need to take climate impacts into account when developing policies was emphasized. With the adoption of the Paris Agreement in 2015, climate, energy transition, and decarbonization financing issues became separate areas and independent goals of the G20, effectively separating them from the topic of growth. This approach, in which emissions reduction is effectively detached from the need to ensure economic growth, peaked during Italy's presidency in 2021, when, under pressure from the EU — US alliance, which had regained strength in the climate sphere, the G7 attempted to transfer its decisions to the G20 agenda. However, treating growth and decarbonization as separate goals does not allow for full consideration of national contexts, as required by the Paris Agreement and previous commitments of the G20.

The final texts of the summits in Antalya, Hangzhou, Hamburg, Osaka, Riyadh, and Bali devote considerable attention to energy security and universal access to energy sources, recognizing the possibility of using all available resources to achieve this goal.

The successive presidencies of Indonesia, India, Brazil, and South Africa are trying to ensure a return to the inseparability of socio-economic growth from emissions reduction, to prevent the problems of energy security and access to energy for all from being ignored in the spirit of SDG 7, and to increase pressure on the G7 to fulfill its commitments in the areas of financing the energy transition and decarbonization in developing countries and technology transfer.

The G20 plays an important role in developing global governance in the area of low-carbon development by performing a number of functions. Coordinating decisions that take into account the interests of all members of the Group and ensuring their effective implementation can significantly contribute to achieving the goals of the Paris Agreement. Implementing commitments at the national level can help to structure domestic policy, to add weight to decisions, and to provide a set of best practices for implementation. However, the existing contradictions within the Group, which are becoming increasingly deep, as well as the desire of the 'seven' to impose their decisions and agenda on the G20 undermine the effectiveness of the institution and jeopardize its leadership in ensuring low-carbon development and legitimacy.

Received / Поступила в редакцию: 18.03.2024

Revised / Доработана после рецензирования: 24.03.2025

Accepted / Принята к публикации: 18.09.2025

## References

- Basangov, L.L., & Ignatov, A.A. (2019). Saudi Arabia's G20 presidency in 2020. *Vestnik RUDN. International Relations*, 19(4), 654–662. (In Russian). <https://doi.org/10.22363/2313-0660-2019-19-4-654-662>; EDN: HNOWXT
- Fues, T. (2017). Recalibrating the G20's mission towards sustainable development: Opportunities and challenges for the German presidency. *International Organisations Research Journal*, 12(2), 34–53. <https://doi.org/10.17323/1996-7845-2017-02-34>; EDN: ZDQFPF
- Goodliffe, G., & Sberro, S. (2012). The G20 after Los Cabos: Illusions of global economic governance. *The International Spectator*, 47(4), 1–16. <https://doi.org/10.1080/03932729.2012.733181>
- Johnstone, I. (2021). The G20, climate change and COVID-19: Critical juncture or critical wound? *Fulbright Review of Economics and Policy*, 1(2), 227–245. <https://doi.org/10.1108/FREP-05-2021-0031>; EDN: EMWHAI
- Kim, J.A., & Chung, S.Y. (2012). The role of the G20 in governing the climate change regime. *International Environmental Agreements: Politics, Law and Economics*, 12(4), 361–374. <https://doi.org/10.1007/s10784-012-9173-2>; EDN: BNIIPH
- Kirton, J. (2020). Globalization's implications for G20 governance. *International Organisations Research Journal*, 15(2), 24–54. <https://doi.org/10.17323/1996-7845-2020-02-02>; EDN: XWFSFZ
- Kirton, J.J., & Kokotsis, E. (2015). *The global governance of climate change: G7, G20, and UN leadership*. Abingdon; New York: Routledge.
- Kirton, J., & Warren, B. (2021). From silos to synergies: G20 governance of the SDGs, climate change & digitalization. *International Organisations Research Journal*, 16(2), 20–54. <https://doi.org/10.17323/1996-7845-2021-02-03>; EDN: YKSQLV
- Kirton, J., & Warren, B. (2022). Governing climate change at the G20 Rome and UN Glasgow summits and beyond. *International Organisations Research Journal*, 17(2), 110–134. <https://doi.org/10.17323/1996-7845-2022-02-05>; EDN: AKUNWR
- Kokotsis, E. (2017). The Gx contribution to global climate governance. *Studia Diplomatica*, 68(3), 79–96. Retrieved from <https://www.jstor.org/stable/26531658>
- Larionova, M.V. (2017). Germany G20 presidency. The test by Trump. *Vestnik RUDN. International Relations*, 17(4), 807–823. (In Russian). <https://doi.org/10.22363/2313-0660-2017-17-4-807-823>; EDN: ZWPRUZ
- Larionova, M.V. (2019). Results of the G20 summit: Mitigation of risks. *Russian Economic Developments*, 26(7), 7–12. (In Russian). EDN: SLUGVX
- Larionova, M.V. (2022). A brief history of the G20 institutional dynamics (2008–2021). *International Organisations Research Journal*, 17(2), 250–274. <https://doi.org/10.17323/1996-7845-2022-02-11>; EDN: BVBNKO
- Larionova, M.V. (2023). G20 at the critical juncture. Indonesia's 2022 presidency: Internal and external shocks, risks of power rebalancing and eventual demise, causes of resilience and re-equilibrium. *International Organisations Research Journal*, 18(1), 33–74. <https://doi.org/10.17323/1996-7845-2023-01-02>; EDN: SKTHYX
- Luckhurst, J. (2021). Networked G20 governance of COVID-19 and its transversal crisis effect. *International Organisations Research Journal*, 16(3), 34–68. <https://doi.org/10.17323/1996-7845-2021-03-02>; EDN: XAFIQM
- Mahida, R., & Chauhan, S. (2023). A study on presidency of the G20 in India: SWOC analysis. *Vidya: A Journal of Gujarat University*, 2(2), 15–25. <https://doi.org/10.47413/vidya.v2i2.188>; EDN: FCQERS
- Nahón, C. (2018). Latin America in the G20: Continuities and ruptures of the regional agenda (2008–2018). *International Organisations Research Journal*, 13(4), 39–54. <https://doi.org/10.17323/1996-7845-2018-04-02>; EDN: YMYUZP
- Nascimento, L., Kuramochi, T., Iacobuta, G., den Elzen, M., Fekete, H., & et al. (2021). Twenty years of climate policy: G20 coverage and gaps. *Climate Policy*, 22(2), 158–174. <https://doi.org/10.1080/14693062.2021.1993776>; EDN: SWOGTA
- Sainsbury, T., & Wurf, H. (2016). The G20 and the future of energy governance. *International Organisations Research Journal*, 11(1), 7–27. <https://doi.org/10.17323/1996-7845/2016-01-7>; EDN: VRWFOZ
- Umar, H., & Indrayani, I. (2022). Indonesian presidency at the G20 forum. *Journal of Social Political Sciences*, 3(4), 443–454. Retrieved from <https://e-journal.unas.ac.id/index.php/jsps/article/view/142>

- Unger, Ch., & Thielges, S. (2021). Preparing the playing field: Climate club governance of the G20, Climate and Clean Air Coalition, and Under2 Coalition. *Climatic Change*, 167(3–4), 1–21. <https://doi.org/10.1007/s10584-021-03189-8>; EDN: CDYHTN
- Yu, H. (2017). G20 and the reform of global energy governance. *China Quarterly of International Strategic Studies*, 3(2), 227–242. <https://doi.org/10.1142/S2377740017500142>

**About the author:**

*Popova Irina Maximovna* — Researcher, Centre for International Institutions Research of the Institute of Applied Economic Research, Russian Presidential Academy on National Economy and Public Administration; 11 Prechistenskaya embankment, Moscow, 119034, Russian Federation; eLibrary SPIN-code: 8106-0481; ORCID: 0000-0002-0849-7168; e-mail: [popova-im@ranepa.ru](mailto:popova-im@ranepa.ru)