

# The G7's Governance of Rare Earth Minerals: Moving the Renewable Revolution Forward

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The global governance of natural resources has always been a central part of countries' domestic and foreign policy and development strategies. Historically, European countries plundered non-European countries and peoples for their minerals and metals. British, French, Spanish, Portuguese and Dutch settlers led the practice in North and South America and elsewhere. The United States and Canada were built on the exploitation of what was in and below the soil – from gold, silver and nickel to hemp and trees for lumber and, later, to oil, gas and uranium. Globally, land was the most important and valuable commodity in exploration, territorial expansion and colonization, most often secured by violence. Today, land and what is beneath it continue to hold as much value and attraction as they have in the past.

In the context of climate and environmental changes, an increasing number of countries are setting targets to shift to net-zero economies by 2050. There is no silver bullet solution to achieve this, so an all-solutions-on-deck approach is required. However, a central shift has been emerging in the area of natural resource extraction. In order to reach its agreed climate targets, the world needs to move from non-renewable commodities and infrastructure to renewable ones. This includes shifting to energy-related infrastructure such as solar panels, wind mills and tidal turbines, as well as new modes of transportation. This green infrastructure requires critical raw materials, whose extraction, when unsustainable, diminishes the “green-ness” of the end product. Moreover, labour rights and human rights are inextricably involved in mining practices. The violation of those rights also reduces the quality of the end product. In 2007, the G7 recognized this juxtaposition between the potential of mineral resources for sustainable development and poverty alleviation, and its own contribution to the misuse of revenues, environmental destruction, armed conflict and state fragility (G8 2007).

The key question now is how does the world move towards a renewable-based economy while avoiding the environmental and human rights pitfalls pervasive in the mining industry? And what countries are best suited to lead the way?

This study helps answer this question. It reviews the G7 major market democracies' governance of minerals from 1975 to 2021, by applying the concert equality model of global summit governance, focusing on the six key dimensions of summit performance (Kirton 2013). It shows that the G7 has paid scant attention to global minerals governance and even less to its links to the environment and climate change.

## **G7 Governance of Minerals, 1975–2021**

The G7 started governing minerals at the 2003 Evian Summit. Since then, it has governed minerals at only six of its annual summits. Although energy security has been one of the G7's central focus points and one reason it was created in 1975, it has paid little attention to the mineral inputs for achieving this. Subsequently, its governance of minerals, across the six dimensions of summit performance, has been low, with the exception of direction setting through links to the democratic value of transparency (see Appendix A). Its governance has been even lower on links to the environment and nearly non-existent on climate change. But the 2021 Cornwall Summit opened the door for finally forging the link between mineral extraction and climate change.

### **Domestic Political Management**

The first dimension of summit performance is domestic political management, measured here in communiqué compliments to individual members (see Appendix B). There has been only one such compliment. It was given to Germany at the Heiligendamm Summit it hosted in 2007. The G7 welcomed Germany's proposal to hold a global multistakeholder conference on transparency in the extractive sector.

Two other compliments came at the 2013 Lough Erne Summit, but to outside international organizations rather than G7 members. Here the G7 welcomed the leadership of the African Union and of the Intergovernmental Forum on Mining for their work on promoting good governance and transparency in the extractive sector.

### **Deliberation**

The second dimension of performance, deliberation, shows that the G7 has paid little attention to minerals. It has given only 2,406 words and 30 paragraphs to the subject from its start in 1975 to 2021 (see Appendix C). For context, the subject of energy has received 39,432 words and 472 paragraphs.

The first summit with a minerals reference in the G7's public communiqué was the French-hosted 2003 Evian Summit, with 32 words. This was followed by an increase to 73 words at the US-hosted 2004 Sea Island Summit. In 2005 and 2006, minerals dropped off the agenda. But the issue made a strong comeback at the German-hosted 2007 Heiligendamm Summit, with a leap to 1,179 words. This marked the highest amount of attention at any G7 summit. Then, minerals again dropped off the agenda for the next two years, before receiving 237 words at the Canadian-hosted 2010 Muskoka Summit and 76 at the French-hosted 2011 Deauville Summit. The issue disappeared again at the US-hosted 2012 Camp David Summit, before rising to 463 at the UK-hosted 2013 Lough Erne Summit. From 2014 to 2020, there was a long gap. The UK-hosted 2021 Cornwall Summit revived the subject, with 246 words and one paragraph.

The French-hosted 2003 Evian Summit first raised the issue of transparency in extractive industries, naming oil, gas and mining, while recognizing the importance of revenues from these sectors. This was taken forward at the US-hosted 2004 Sea Island Summit, where country-led transparency compacts were launched, with a special emphasis on large extractive industries. The first countries to engage in these partnerships at Sea Island were Georgia, Nicaragua, Nigeria and Peru. In this regard, the Extractives Industry Transparency Initiative (EITI) was recognized.

At the 2007 Heiligendamm Summit, the G7 renewed its support for the EITI with a focus on combatting corruption. Minerals resources were framed as a contributor to poverty alleviation and sustainable development while being recognized as a cause of environmental destruction, misuse of revenues, armed conflict and state fragility. From this, the G7 discussed good governance of mineral resources consistent with social and environmental standards, the development of international principles and guidelines, certification schemes, and the artisanal and small-scale mining sector.

The 2010 Muskoka and 2011 Deauville summits scaled back the G7's focus to corruption and illegal exploitation of and trade in minerals. It targeted conflict in the Congo and removed the environment-social-mining link. The 2013 Lough Erne Summit reintroduced the socioeconomic dimension of resource extraction. It called for both transparency and now the accountable management of mineral resources. Yet it still left out the environment.

The 2021 Cornwall Summit was the first to omit references to the EITI and transparency and the first to discuss "critical minerals and semiconductors." The paragraph containing this reference also recognizes that climate change and growing inequality are a key risk for the global economy. It also

states that the G7 leaders will address risks to the resilience of global supply chains in the area of critical minerals and semiconductors. The G7 thus made a link, if not entirely a direct one, between minerals and climate change.

### **Direction Setting**

On the third dimension of direction setting, affirmations of the G7's first foundational mission of democracy was strong, with 37 references (see Appendix D). They were weak in regard to its second foundational mission of individual liberty or human rights, with only two references. On democracy almost all references were to transparency. There were five to openness, four to good governance and one to the rule of law. The two human rights affirmations were made at the 2007 Heiligendamm Summit with a reference to the Voluntary Principles on Security and Human Rights and at the 2013 Lough Erne Summit in the context of certification, responsible business and respect for human rights.

Further, there have also been very few linkages to the subject of the environment, climate change and sustainability, with 17 such links in total, mostly concentrated at one summit. Links with the environment and sustainability tied with eight each, leaving climate change with just one link. The 2007 Heiligendamm Summit claimed 14 of them, split between eight with the environment and six with sustainability. The 2013 Lough Erne Summit made one link with sustainability. The 2021 Cornwall Summit made one link with sustainability and one with climate change.

### **Decision Making**

On the fourth dimension, decision making, the G7 has made few commitments compared to other subjects, with 44 (see Appendix E). The first, and the most made at a single summit, came at the 2007 Heiligendamm Summit with 22. None were made in 2008 or 2009. Two each were made at 2010 Muskoka and 2011 Deauville. None were made at 2012 Camp David. Then a jump came with 15 at 2013 Lough Erne. But then a long absence came, with none made from 2015 to 2020. Finally, 2021 Cornwall added three new mining commitments.

The 2007 Heiligendamm Summit introduced a range of issues. These included 10 references in its commitments to environmental sustainability, five to crime and corruption, three to trade and two to human rights. It also referred to raw materials, rare metals, conflict diamonds, gold and transparency. In the summits that followed, the range of subjects shrank. The 2010 Muskoka Summit referenced diamonds and crime and corruption, 2011 Deauville referenced transparency, and 2013 Lough Erne referenced transparency, trade, human rights, diamonds and gold and added precious stones. No summit between 2008 and 2019 made commitments that referred to environmental sustainability.

The 2021 Cornwall Summit added an indirect link to climate change, in a new commitment on critical minerals and semiconductors. This commitment was preceded in the communiqué by a sentence that referenced climate change as a risk to the global economy. Thus although the discrete commitment does not use the specific term, climate change is linked as a salient factor in the creation and implementation of this commitment. Cornwall's other two commitments were on transparency.

### **Delivery**

There is little evidence on the fifth dimension, the delivery of these commitments through G7 members' compliance with them before their next summit. This is an important area of further research. Only one of the 44 minerals commitments has been assessed for compliance. This commitment, from the 2007 Heiligendamm Summit, was to "build capacity for good governance of minerals consistent with social and environmental standards and sound commercial practices by reducing barriers to investment and trade" (G8 2007). Compliance was only 56%.

Statistical analysis of the G7's compliance with its past commitments, overall and across all subject areas, suggests that the G7's compliance with its minerals commitments will be moderate to low. A regression analysis of 596 G7 commitments and 4,896 observations showed the G7's compliance was enhanced when the commitment included a reference to the G7's core foundational missions of human rights and democracy, and when the G7 held a same subject ministerial meeting ahead of the leaders summit (Rapson 2021). Commitments on mobilizing money inhibited compliance. Features such as high binding language, references to a major international organization or commitments with a timetable had no effect on compliance.

An analysis of the G7's 44 minerals commitments shows 13, or 31%, included a reference to the G7's core democratic value of transparency. Three, or 7%, referenced its core value of human rights. This gives a significant 38% of the commitments a potential compliance-enhancing feature.

Yet, the potential for higher compliance is pulled down by the 10 references to major international organizations, in 23% of the commitments. There is no core international organization for mining. The G7 has invoked several international organizations: the World Trade Organization, the Organisation for Economic Cooperation and Development (OECD), the United Nations, the World Bank and the International Finance Corporation, as well as several initiatives, with the Extractive Industry Transparency Initiative at the forefront. Mining is a diffuse, cross-cutting issue. As such, it may be to the world's benefit for governance to be shared. However, without a central forum this diffusion can also pose challenges for leadership on such issues as creating internationally agreed upon and stringent social and environmental standards in the mining sector.

Further, the G7 does not invite the G7 members' ministers responsible for natural resources to hold a stand-alone or joint pre-summit meeting. Additionally, the G7's compliance with other subjects highly relevant for its minerals commitments has had historically lower compliance and a lower effect on the probability of compliance: trade, -45.1%; crime and corruption, -36.4%, conflict prevention, -24.7%; climate change, -21.0% (Rapson 2021). This is somewhat confirmed with the one assessed G7 minerals commitment, with its environmental reference and low compliance of 56%. More hopefully, energy has a stronger positive effect, or +15.9%.

Finally, there is yet no solid evidence on the impact of specified agents — or initiatives and programs — on the G7's compliance. Of the 44 minerals commitments, 14, or 32%, reference a specified agent. Also unknown are those commitments with a reference to the private sector (N=5, 11%) or civil society (N=1, 3%).

### **Development of Global Governance**

On the sixth dimension of performance, development of the institutional internal and external global governance, there were 21 references to international institutions in the leaders' communiqué passages on minerals (see Appendix F). Three went to institutions inside the G7: one each to the 2007 presidency, the G7 Investment Screening Expert Group and the G7 Panel on Economic Resilience.

The remaining 18 references went to outside institutions: four to the OECD, two each to the International Finance Corporation and the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, and one each to the remainder. Notably, one of these latter references was to the UN Environment Programme.

Of these references, the G7 led and supportively followed equally. It welcomed and called on external and internal institutions eight times and it agreed to support and cooperate with them eight times.

## Conclusion

Although the G7 has paid little attention to minerals, this subject has been on the leaders' agenda since 2003 Evian Summit and as recently as the 2021 Cornwall Summit. The G7's governance of mining has been sporadic, with only politically conservative leaders bringing minerals to the G7's agenda: French presidents Jacques Chirac in 2003 and Nicolas Sarkozy in 2011; US president George W. Bush in 2004; German chancellor Angela Merkel in 2007; Canadian prime minister Stephen Harper in 2010; and British prime ministers David Cameron in 2013 and Boris Johnson in 2021.

Across all the six dimensions of summit performance, the G7 has had low performance. With little attention given to minerals in its communiqués, there were subsequently few discrete commitments, relative to other subjects. Its strongest performance came with a relatively high number of references to the G7's core foundational mission of democracy, specifically to the democratic value of transparency, especially at Heiligendamm in 2007 and Lough Erne in 2013. Research suggests that references to democratic values in G7 commitments is a predictor of higher compliance (Rapson 2021). This bodes well for the G7's compliance with its minerals commitments, where data are not yet available. Yet several factors can inhibit compliance, suggesting that the G7's compliance with its minerals commitments may be moderate at best. Still, the 2021 Cornwall Summit opened the door to improved governance of minerals with its, albeit low binding, commitment to consider critical rare earth minerals against the backdrop of a rapidly warming planet.

## Further Research

Further research should start with the following questions:

First, what, if any, countries or bloc of countries inside or outside the G7 are best positioned to lead on environmentally and socially sustainable mining, as the world moves away from non-renewable commodities to renewable ones? This research should begin with an inventory of the top producing countries of critical and rare earth minerals, especially those needed for renewables, such as lithium. It should include state-owned enterprises and major resource extractive companies too. The top producers' degree of democracy should be assessed, as this is where the democratic G7 is most likely to find partners for the coalition it needs to construct. How many such countries has the G7 invited as guests to its summits and does G7 minerals performance increase when it does?

Second, it should build a comprehensive dataset of the G7's compliance with its minerals commitments and conduct further studies on potential compliance enhancers and inhibitors and the causes of compliance. The G7 is a powerful group of democratic countries, whose membership also includes the world's historically most voracious colonial powers that built their economies using violent methods of resource extraction and forced human labour. Avoiding these pitfalls of history is imperative in the energy transition. The G7 would therefore provide an insightful case study of how well democratic colonial powers comply with their own resource extraction commitments, and whether a group that includes more middle and smaller powers would be better suited to lead on global mineral governance. Thus far, the record on the other dimensions of performance does seem to correlate with a country's colonial holdings abroad, as France and the United Kingdom addressed minerals at two of the three summits they hosted, while the United States, Germany and Canada did at only one each, and Japan and Italy never have.

Third, it should look at the causal effect of the individual leaders hosting a G7 summit. All G7 summits where there were deliberations (or a communiqué with references to minerals) were hosted by a conservative party. They came from one of the two biggest colonial powers of the G7 — France and the United Kingdom — and their progeny — Canada and the United States. Europe's most powerful country, Germany, also had a conservative host. It was the only one to bring the issue of

the environmental impacts of mining onto the G7's agenda, after which it disappeared. Will ecologically sustainable mining return to the G7 summit's agenda and action in 2022, when Germany hosts at Elmau on June 25–26, this time led by a social democratic leader, Chancellor Olaf Shultz?

## References

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<http://www.g7.utoronto.ca/summit/2007heiligendamm/g8-2007-summary.html>.

Rapson, Jessica (2021). "The Effectiveness Challenge," in *G7 UK: The Cornwall Summit*, eds. John Kirton and Madeline Koch (London: GT Media). <https://www.globalgovernanceproject.org/the-effectiveness-challenge>.

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**Appendix A: G7 Performance on Minerals, 1975–2021**

Summit	Domestic political management		Deliberation			Direction setting			Decision making			Delivery		Development of global governance		
	Compliments		Words		Documents	Priority placement	Democracy	Human rights	# made	Assessed		Score	%	Inside	Outside	
	#	%	#	%						#	%				#	#
2003 Evian			32	0.2	1		1	0								
2004 Sea Island			73	0.2	1		2	0								
2005 Gleneagles			0	0	0											
2006 St. Petersburg			0	0	0											
2007 Heiligendamm	1	8%	1,179	4	2		15	1	22	1	4.5%	+0.11	56%	1	10	8
2008 Hokkaido-Toyako			0	0	0				0							
2009 L'Aquila			0	0	0				0							
2010 Muskoka			237	2.5	1		2	0	2					0	1	1
2011 Deauville			176	1	1		5	0	2							
2012 Camp David			0	0	0				0							
2013 Lough Erne	2 <sup>a</sup>	15%	463	3	2		8	1	15					0	6	6
2014 Brussels			0	0	0											
2015 Elmau			0	0	0											
2016 Ise-Shima			0	0	0											
2017 Taormina			0	0	0											
2018 Charlevoix			0	0	0											
2019 Biarritz			0	0	0											
2020 Virtual			0	0	0											
2021 Cornwall			246	1	1		2	0	3					2	1	1
Total	3	-	2,406	12	9		35	2	44	1	-	-	-	3		
Average	1	0.12	127	1	0		5	0.29	5.5	1	0.05	+0.11	56%	0.8	4.5	4

Notes: There were minerals conclusions from 1975 to 2002.

<sup>a</sup> References are to international organizations.

## Appendix B: G7 Communiqué Compliments – Minerals

Summit	Total	Germany	NEPAD	Intergovernmental Forum on Mining
2007 Heiligendamm	1	1		
2008 Hokkaido-Toyako				
2009 L'Aquila				
2010 Muskoka				
2011 Deauville				
2012 Camp David				
2013 Lough Erne	2		1	1
2014 Brussels				
2015 Elmau				
2016 Ise-Shima				
2017 Taormina				
2018 Charlevoix				
2019 Biarritz				
2020 Virtual				
2021 Cornwall				
Total	3	1	1	1

Note: No compliments were given before 2007. The traditional coding for domestic political management includes countries and excludes institutions, but given the small number of mentions for this issue area, institutions were also included.



## Appendix C: G7 Conclusions on Minerals

Summit	Words		Paragraphs		Documents		
	#	% total	#	% total	#	% total	# dedicated
2003 Evian	32	0.2	1	0.2	1	7	0
2004 Sea Island	73	0.2	1	0.1	1	5	0
2005 Gleneagles	0	0	0	0	0	0	0
2006 St. Petersburg	0	0	0	0	0	0	0
2007 Heiligendamm	1,179	4	21	4	2	20	0
2008 Hokkaido-Toyako	0	0	0	0	0	0	0
2009 L'Aquila	0	0	0	0	0	0	0
2010 Muskoka	237	2.5	1	1	1	50	0
2011 Deauville	176	1	1	0.4	1	20	0
2012 Camp David	0	0	0	0	0	0	0
2013 Lough Erne	463	3	4	1.5	2	50	0
2014 Brussels	0	0	0	0	0	0	0
2015 Elmau	0	0	0	0	0	0	0
2016 Ise-Shima	0	0	0	0	0	0	0
2017 Taormina	0	0	0	0	0	0	0
2018 Charlevoix	0	0	0	0	0	0	0
2019 Biarritz	0	0	0	0	0	0	0
2020 Virtual	0	0	0	0	0	0	0
2021 Cornwall	246	1	1	0.5	1	16	0
Total	2,406	12	30	8	9	168	0
Average	127	1	2	0	0	9	0

### Notes:

Governance of minerals started in 2003. Data are drawn from all official English-language documents released by the leaders as a group. Charts are excluded.

Words: “#” is the number of mineral-related subjects for the year specified, excluding document titles and references, and calculated by paragraph as the unit of analysis. “% total” refers to the total number of words in all documents for that summit.

Paragraphs: “#” is the number of paragraphs containing references to minerals. Each point is recorded as a separate paragraph. “% total” refers to the total number of paragraphs in all documents for that summit.

Documents: “#” is the number of documents that contain information on mineral subjects and excludes dedicated documents. “% total” refers to the total number of documents for that summit. “# dedicated” is the number of documents at that summit that contain a mineral-related subject in the title.

Inclusion terms: cobalt, copper, diamonds, extractive sector/industry (in reference to mining), Extractives Industry Transparency Initiative (EITI), gold, iron, lead, lithium, nickel, the Organisation for Economic Co-operation and Development’s Guidelines for Multinational Enterprises, potash, rare metals, semiconductors, silver, tin, uranium, zinc.  
Exclusion terms: oil, gas, coal, peat, wood.

## Appendix D: G7 Direction Setting on Minerals

Summit	Total	Democracy	Individual liberty
2003 Evian	1	1	0
2004 Sea Island	2	2	0
2005 Gleneagles			
2006 St. Petersburg			
2007 Heiligendamm	16	15	1
2008 Hokkaido-Toyako			
2009 L'Aquila			
2010 Muskoka	2	2	0
2011 Deauville	5	5	0
2012 Camp David			
2013 Lough Erne	9	8	1
2014 Sea Island			
2015 Elmau			
2016 Ise-Shima			
2017 Taormina			
2018 Charlevoix			
2019 Biarritz			
2020 Virtual			
2021 Cornwall	2	2	0
Total	37	35	2

Notes: There were no references before 2003. Blank = no governance on minerals at that summit.

**Appendix E: G7 Commitments on Minerals by Subject**

Summit	# discrete commitments	Mining	Minerals	Raw materials	Rare metals	Metals	Human rights	Diamonds	Gold	Crime and corruption	Transparency	Trade	Precious Stones	Critical minerals	Semi-conductors	Environment/sustainability	Climate change
1975–2006	0																
2007 Heiligendamm	22 (44)	10	7	3	1	1	2	1	1	5	1	3				10	
2008 Hokkaido-Toyako	0																
2009 L'Aquila	0																
2010 Muskoka	2 (3)		1					1		1							
2011 Deauville	2 (3)	1									2						
2012 Camp David	0																
2013 Lough Erne	15 (22)	3	4				1	3	1		8	1	1				
2015 Elmau	0																
2016 Ise-Shima	0																
2017 Taormina	0																
2018 Charlevoix	0																
2019 Biarritz	0																
2020 Virtual	0																
2021 Cornwall	3 (4)										2			1	1		1 <sup>a</sup>
<b>Total</b>	<b>44 (74)</b>	<b>14</b>	<b>12</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>5</b>	<b>2</b>	<b>6</b>	<b>11</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>10</b>	<b>1</b>

Notes: Number of discrete commitments is the total number of commitments made, number in parentheses is the total number of subject references with overlap.

<sup>a</sup> This commitment is implicitly linked to climate change because it appears in a paragraph on climate change, although the commitment does not explicitly reference climate change.

## Appendix F: G7 Development of Global Governance - Minerals

Institution	Total	2007 Heiligendamm	2008 Hokkaido-Toyako	2009 L'Aquila	2010 Muskoka	2011 Deauville	2012 Los Cabos	2013 Lough Erne	2014 Brussels	2015 Elmau	2016 Ise-Shima	2017 Taormina	2018 Charlevoix	2019 Biarritz	2020 Virtual	2021 Cornwall
Outside																
World Trade Organization	1	1														
Organisation for Economic Co-operation and Development	4	2					1									1
International Finance Corporation	2	2														
UN Global Compact	1	1														
Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development	2	1					1									
International Council on Mining and Metals	1	1														
World Bank	1	1														
UN Environmental Program	1	1														
Non-governmental Organizations	1				1											
African Union	1						1									
New Partnership for Africa's Development	1						1									
African Development Bank	1						1									
International Financial Institutions	1						1									
Total Outside	18	10			1		6									1
Inside																
G7/G8	1	1														
G7 Investment Screening Expert Group	1															1
G7 Panel on Economic Resilience	1															1
Total Inside	3	1														2