



China's Global Energy Finance 2019

Xinyue Ma is the China Research and Project Leader at the Global Development Policy Center (GDP Center) at Boston University. Before joining the GDP Center, she worked with the New Climate Economy (NCE) Initiative at the World Resources Institute in Washington D.C.

Kevin P. Gallagher is a Professor of Global Development Policy at Boston University's Pardee School of Global Studies and directs the Global Development Policy Center. Gallagher also serves on the United Nations' Committee for Development Policy and co-chairs the T-20 Task Force on International Financial Architecture at the G-20.

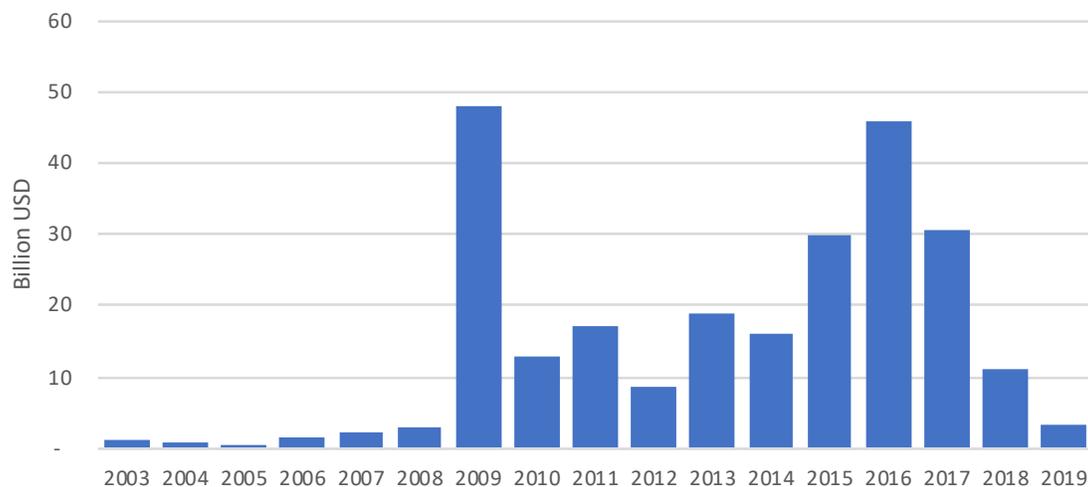
Yanan Guo is a Research Fellow for the Global Development Policy Center (GDP Center). He is pursuing a M.A. degree in International Affairs at the Frederick S. Pardee School of Global Studies with a specialization in International Communication. His research interests include international monetary policies and global finance.

XINYUE MA, KEVIN P. GALLAGHER, YANAN GUO

In 2019, overseas energy financing by China's two policy banks with global operations —the China Development Bank (CDB) and the Export-Import Bank of China (CHEXIM) —was at its lowest level since 2008. In 2019, China's policy banks issued only three loans for energy projects totaling just \$3.2 billion, down 71 percent from the \$11.08 billion in lending to foreign governments in 2018.¹ Figure 1 shows annual energy finance by the CDB and CHEXIM since 2000 according to our database.

¹ Estimates of the previous years are different from the 2019 version of the database, as the numbers have been adjusted as we gathered and verified more data.

Figure 1: China's Annual Energy Finance from Policy Banks 2000-2019



Source: *China's Global Energy Finance, 2019*. Global Development Policy Center, Boston University.

While the scale of Chinese financing for overseas energy has declined considerably, the composition of such lending has largely stayed the same. Two of the three loans this year went to hydropower projects – the Gurara hydropower project in Nigeria and the Koukoutamba hydropower project in Guinea, both provided by CHEXIM; the other went to a coal power plant in Turkey, which was provided by CDB (See Table 1).

Table 1: Overseas Energy Projects Financed by China's Policy Banks in 2019

Country	Region	Energy Source	Energy SubSector	Lender	Amount (\$m)	Project Name
Guinea	Africa	Hydropower	Multipurpose	Ex-Im Bank	812	294 MW Koukoutamba hydro project
Nigeria	Africa	Hydropower	Power Generation	Ex-Im Bank	1000	360 MW Gurara hydropower project
Turkey	Europe/Central Asia	Coal	Power Generation	CDB, ICBC, BOC	1381	Hunutlu Thermal Power Plant Project with ICBC, BOC

As of the end of 2019, we record a total of 270 loans given in the energy sector to other countries by these two banks since 2000, totaling approximately \$251 billion. Table 2 exhibits the total amount of energy finance flows from China's banks since 2000 by type of energy source and by region. Seventy-three percent of the \$251 billion went to BRI countries.² The oil sector received the biggest amount of loans, followed by coal and hydropower. Hydropower projects are the most frequently supported

² According to the list of 137 countries that have signed cooperation documents with China on BRI as of the end of October 2019 <https://www.yidaiyilu.gov.cn/gbjg/gbgk/77073.htm>.

source of energy – 33% of the 270 projects supported by CDB and CHEXIM are hydropower projects, followed by coal (25%) and other transmission projects (15%). In terms of regional distribution, Africa received the greatest number of projects financed by the two banks (32%), followed by Latin America and the Caribbean and Southeast Asia (both received 13% of China’s energy development finance overseas). East European and Central Asian countries received the largest amount of loans due to the development of oil and gas projects in the region. Coal finance provided by CDB and CHEXIM is the most concentrated in Asia. Africa received the largest amount of hydropower finance. Non-hydro, renewable energy projects only received 2.3% of the total energy finance by Chinese policy banks, or 6.7% of the projects.

“As of the end of 2019, we record a total of 270 loans given in the energy sector to other countries by these two banks since 2000, totaling approximately \$251 billion.”

Table 2: China's Overseas Development Finance in Energy by energy source and by region, 2000-2019 (Million USD)

	Africa	East Asia	Europe/ Central Asia	LAC	Middle East	South Asia	SE Asia	BRI Countries	Grand Total
Biomass				60				60	60
Coal	6,465		11,367	356		16,787	16,807	43,055	51,783
Gas/ LNG	3,922		25,943			4,248	2,400	29,414	36,514
	493							493	493
	23,093		797	7,462	130	4,404	7,683	39,721	43,569
Nuclear			7,772			8,420		8,420	16,192
Oil	10,830		26,378	48,310	150	694	1,670	47,982	88,032
Solar	206		1,061	1,292		1,500		3,727	4,058
	5,167	113	482	889	1,500		1,276	9,427	9,427
Wind	611			38		474		1,123	1,123
Grand Total	50,788	113	73,801	58,406	1,780	36,526	29,836	183,421	251,251

Looking at the projects financed by CDB and CHEXIM identified in 2019, both Nigeria and Guinea are countries with which CHEXIM has a long-standing cooperation relationship, especially in the hydropower sector. Both the Gurara II Hydropower Plant and the Koukoutamba Hydropower Plant are the third hydropower plant in our record that CHEXIM has financed in the country. These plants are among the lists of projects slated to meet the glaring energy demand gaps in the two West African countries which are rich in hydropower resources. Turkey's energy use is expected to increase by 50% over the next decade. The Hunutlu Thermal Power Plant becomes China's biggest direct investment in Turkey so far. It is owned by a joint venture company involving the Chinese Shanghai Electric Power Co. as well as local investors, and financed by CDB.³

All three projects are designed to address key development gaps. However, even though the smaller number of projects could be interpreted as a reflection of stricter risk management at the banks, the projects are not free from controversies, especially the Koukoutamba Dam and the Hunutlu Thermal Power Plant.

Led by the Senegal River Basin Development Organisation (OMVS), a regional cooperative management body of the Senegal River which currently includes Guinea, Mali, Mauritania, and Senegal, the 294MW

Koukoutamba Dam in Guinea is a long-planned project that has been highlighted as a regional priority since 1981.⁴ According to the World Bank, as of 2017, only 18% of Guinea's population have access to electricity.⁵ This project is among the group of renewable energy projects the country is developing to meet its national demand by 2021. In the medium term, this project is planned to be connected to the West Africa Power Pool to help meet the fast-growing regional electricity demand.⁶ Studies regarding Koukoutamba Dam indicate that the contribution of this infrastructure to the regional hydropower generation is huge with relatively

“In 2019, China’s policy banks issued only three loans for energy projects totaling just \$3.2 billion, down 71 percent from the \$11.08 billion in lending to foreign governments in 2018.”

low negative environmental and social impacts.³

However, this project has become increasingly controversial due to potential environmental impacts to a newly declared protected area called the Moyon-Bafing National park – a crucial sanctuary for the critically endangered species of western chimpanzees.⁷ In addition, new roads and improved infrastructure would also mean opening up previously remote areas, potential displacing physically and economically the population to other areas of the protected area. Feasibility studies for the reserve conclude that it will be “challenging but feasible” to implement a chimpanzee conservation project in Moyon-Bafing that is aligned with best practice conservation standards and will deliver tangible and significant conservation gains. However, if poorly managed, this would trigger threats that could

3 <https://www.nsenerybusiness.com/projects/hunutlu-thermal-power-plant/>.

4 World Bank, (2013). International Development Association Project Appraisal Document for Senegal River Basin Multipurpose Water Resources Development Project 2 <http://documents.worldbank.org/curated/en/164891468007238442/pdf/767650PAD0GEF00R2013002830100OUO090.pdf>.

5 World Bank, (2018). *Project Information Document/Integrated Safeguards Data Sheet Guinea-Mali Interconnection Project-P166042*. <http://documents.worldbank.org/curated/en/515871527263469191/pdf/Project-Information-Document-Integrated-Safeguards-Data-Sheet-Guinea-Mali-Interconnection-Project-P166042.pdf>.

6 <https://africa-energy-portal.org/sites/default/files/WAPP%20Presentation%20Master%20Plan%202019-2033,%20February%202019.pdf>.

7 Watts, J. (2019, February 28). Chinese dam project in Guinea could kill up to 1,500 chimpanzees. *The Guardian*. <https://www.theguardian.com/world/2019/feb/28/chinese-dam-project-in-guinea-could-kill-up-to-1500-chimpanzees>.

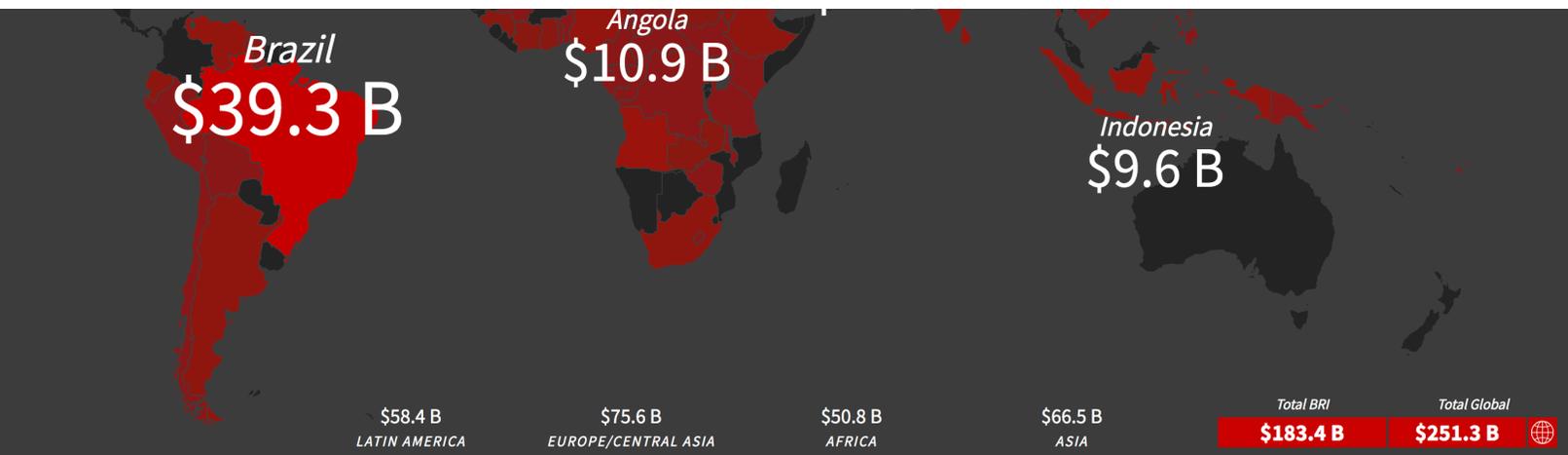
unhinge its long-term conservation value.⁸ As of the release of the database, it has not been confirmed that construction for this project has started.

Similarly, the Hunutlu Thermal Power Plant is planned near a biodiversity hotspot area and faces local and national opposition due to potential pollution, health, environmental, and climate impacts. Even though the power plant is adopting higher pollution control and efficiency standards than the EU,⁹ the projected greenhouse gas emissions are still alarming. In May 2019, the company initiated the construction of the coal power plant project, even though it was paused in June because of the tortoise nesting season, according to a local conservation group EKAD.¹⁰

8 TBC (2017) Moyen Bafing chimpanzee offset feasibility assessment. The Biodiversity Consultancy Ltd, Cambridge, UK and Conakry, Republic of Guinea.

9 <http://embapower.com/#control>; http://www.xinhuanet.com/fortune/2019-08/26/c_1210257158.htm.

10 https://www.banktrack.org/project/emba_hunutlu_coal_power_plant#updates.



The Global China Initiative (GCI) is a research initiative at Boston University's Global Development Policy Center. The GDP Center is a University wide center in partnership with the Frederick S. Pardee School for Global Studies. The Center's mission is to advance policy-oriented research for financial stability, human wellbeing, and environmental sustainability.

www.bu.edu/gdp

The views expressed in this Policy Brief are strictly those of the author(s) and do not represent the position of Boston University, or the Global Development Policy Center.

NOTES:

This version of the CGEF database also made updates to 124 past entries. We deleted 17 entries that were suspended or beyond the scope of our database, added 54 new entries that could be verified per our methodology in the past years, and updated information for 53 past entries. We also updated the list of BRI countries according to the list of countries that have signed cooperation documents with China as of October 2019 (latest available).