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DECONFLICTING CRITICAL MINERALS WITH CHARTER CITIES

Improving the Lives of Congolese Citizens and Creating a Stable and Ethical Source for Critical Minerals

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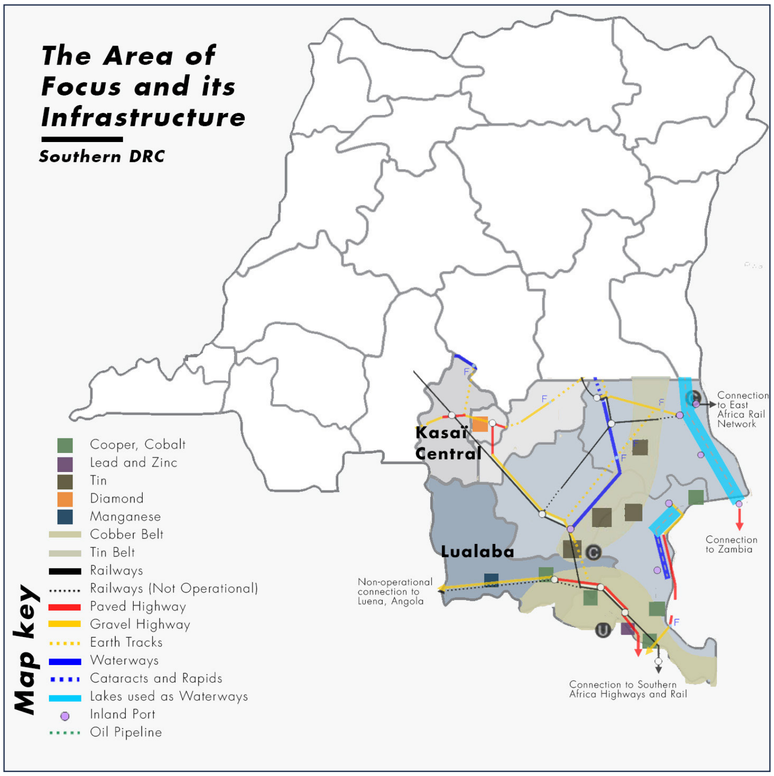

EXECUTIVE SUMMARY

The Democratic Republic of the Congo (DRC) has some of the largest deposits of the critical minerals cobalt and tantalum in the world. These critical minerals are necessary for many of the products that North American and European Union (EU) high-technology companies produce. However, the supply chains of these critical minerals are threatened by geopolitical competitor nations like the Russian Federation (Russia) and the People's Republic of China (PRC), both through the physical presence of these competitor nations in the region of central Africa, and through over concentration of supply chains in the hands of these competitor nations. The dangers to the supply chains of critical minerals, which are currently for the most part routed from African nations through competitor nations before reaching the United States, can be significantly reduced by relocating the refining and processing of these minerals to the DRC. Relocating these industries to the DRC will improve and diversify the DRC's economy. This relocation can be best managed through establishing a charter city in a relevant province. Establishing such a city would have the added benefit of increasing Congolese state capacity, technology transfers, and knowledge spill overs, thereby increasing the DRC's ability to resist unwanted influence from competitor nations.

RECOMMENDATIONS

1. With the Charter Cities Institute and Hubert Kabasu Babu Katulondi, former governor of Kasaï Occidental province, business leaders should reach out to the relevant government leaders in the DRC.
2. Select a site in one or both of Central Kasaï or Lualaba province.
3. Create a public-private partnership between companies relying on critical minerals from the DRC and the elevant government entities in the DRC in order to fund the charter city projects.
4. Establish a charter city that will focus on the transformation of minerals like cobalt, tantalum, nickel, chrome, and lithium into intermediate products, and eventually end products like cell phones, electric vehicle batteries, and jet engines, to be shipped directly to North America or the EU.

THE PROBLEM

The phenomenon of the "resource curse" is when countries that are rich in natural resources paradoxically have worse economic and development outcomes than countries with few natural resources. The DRC, which is rich in mineral resources, appears to be a prime example of this phenomenon. Since its independence from Belgium in 1960, the DRC has been wracked by a series of civil wars, the Mobutu dictatorship, disease, and other disasters. Despite possessing an estimated $24 trillion in untapped mineral resources, the DRC has still been unable to achieve the stability and economic success that it needs and that its people deserve.[1]

The governments and major economic actors in North America and the EU have more than just a humanitarian interest in a secure and stable DRC. The DRC is one of the key suppliers of a number of minerals that the US government has declared by law to be "critical minerals," vital for both the high-tech and defense industries. As such, there is ample opportunity for a mutually beneficial relationship to be struck between the DRC, North America, and the EU. By ensuring a secure and stable DRC, the nations of North America and the EU can simultaneously help to ensure their own security and stability. A full picture of needs and opportunities arises when four issues are examined:

1. The industrial need for critical minerals;
2. The rising threat of competition from Russia and the PRC;
3. The incomplete solutions offered by traditional development and aid in the DRC; and
4. The promising new solution of charter cities.

THE NEED FOR CRITICAL MINERALS

Specific minerals, valued for their unique chemical properties and the fact they can't be substituted for in industrial processes, are used by high-tech and defense industries to make advanced products. These products include, among other things, cell phones, computers, batteries used in electric cars, rocket and aircraft engines, and night vision goggles.[2] On December 27, 2017, the President of the United States issued Executive Order 13817, titled *''A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals.''*[3] This executive order led to the promulgation of a list of 35 critical minerals that meet three key elements :"(i) a non-fuel mineral or mineral material essential to the economic and national security of the United States, (ii) the supply chain of which is vulnerable to disruption, and (iii) that serves an essential function in the manufacturing of a product, the absence of which would have significant consequences for our economy or our national security."[4]

The DRC is a significant source of six of the listed minerals: cobalt, lithium, niobium, tantalum, tin, and tungsten. Furthermore, there is a suggested supplemental list of seven more mineral commodities of which the DRC is a significant source of three: copper, gold, and zinc.[5] The DRC's global share of some of these mineral resources is enormous, with 50% of the world's cobalt and 32% of its tantalum. However,

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[1] Democratic Republic of the Congo: Economy. (n.d.). Retrieved December 05, 2020, from https://globaledge.msu.edu/countries/democratic-republic-of-the-congo/economy

[2] Conca, J. (2019, November 19). 35 Minerals That Are Critical To Our Society. Retrieved December 05, 2020, from https://www.forbes.com/sites/jamesconca/2019/11/19/35-minerals-that-are-critical-to-our-society/?sh=580f2a0d18bf

[3] Presidential Executive Order on a Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals. (2017, December 20). Retrieved December 05, 2020, from https://prd-wret.s3-us-west-2.amazonaws.com/assets/palladium/production/atoms/files/myb3-2015-congo-kinshasha.pdf

[4] Ibid.

even the DRC's smaller global shares of the other minerals are not insignificant, with 5% of its copper; 2% of its tin; and 1% of its gold.[6] Despite the DRC's enormous global share of cobalt and tantalum, as well as other minerals, the country does not refine the overwhelming amount of these minerals itself. In fact, the DRC is the producer of only 3% of the world's refined cobalt.[7] Instead, these higher value-added refining activities take place elsewhere.

RUSSIAN AND CHINESE INFLUENCE

The world in general, and Africa in particular, has seen increasing Russian and Chinese influence over the flow of critical minerals. Russian influence has been characterized by the increased presence of Russian troops and mercenaries in countries like Libya, the Central African Republic, Mozambique, and others.[8] Russia has increased its military presence in these countries in an effort to secure its access to essential energy resources like oil, uranium, and coal.[9] Russia's overall strategy to secure access to resources in Africa is based around a "return of the Soviet strategy," which consists of recognizing the sovereignty of target countries, "but [maintaining] indirect control over them and to continue [Russia's] exploitation [of those countries' resources]."[10] The DRC's fragile democracy could easily fall prey to Russian meddling, meant to divert Congolese mineral resources out of global markets and into strictly Russian markets. However, Russia is not the only foreign power seeking to exert heightened control over Africa's resources through potentially coercive means.

The DRC's fragile democracy could easily fall prey to Russian meddling, meant to divert Congolese mineral resources out of global markets and strictly into Russian markets.

The PRC has spent years implementing a two-pronged strategy to augment its influence over African resource flows. The first prong of this strategy is to provide loans, engage in business, and buy property on the ground in many African countries. This prong of the strategy has seen the PRC engage in enormous infrastructure projects across the continent, in some cases under the auspices of its Belt and Road Initiative (BRI). Several BRI-related infrastructure projects have led the PRC to try and take control of infrastructure assets when loans cannot be repaid. For example, the PRC has attempted to seize assets at the Port of Mombasa in Kenya and has succeeded in gaining control over the Port of Hambantota in Sri Lanka.[11] However, as a percentage of the total value of African mining production, Chinese companies, many of which are state owned, still only produce about 7% of this value.[12] While this number is growing, it can still be said that physical control and extraction of Africa's mineral resources is not the main prong of the PRC's strategy. This brings us to the second prong of the PRC's strategy.

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[5] Final List of Critical Minerals 2018, Notice, E.O. 13817, 82 Fed. Reg. 60835 (May 18, 2018).
[6] Yager, T. R. (2019, July). 2015 Minerals Yearbook: CONGO (KINSHASA) [ADVANCE RELEASE]. Retrieved December 05, 2020, from https://prd-wret.s3-us-west-2.amazonaws.com/assets/palladium/production/atoms/files/myb3-2015-congo-kinshasha.pdf
[7] Ibid.
[8] Dukhan, N. (2020, October). Central African Republic: Ground Zero for Russian Influence in Central Africa. Retrieved December 05, 2020, from https://www.atlanticcouncil.org/wp-content/uploads/2020/10/CAR-Russian-Influence-Final.pdf.
[9] Schmitt, E., & Gibbons-neff, T. (2020, January 28). Russia Exerts Growing Influence in Africa, Worrying Many in the West. Retrieved December 06, 2020, from https://www.nytimes.com/2020/01/28/world/africa/russia-africa-troops.html
[10] Dukhan, note 8, supra.
[11] See, e.g, Farooki, M. (2018, March). China's Mineral Sector and the Belt & Road Initiative. Retrieved December 05, 2020, from http://stradeproject.eu/fileadmin/user_upload/pdf/STRADE_PB_02-2018_One_Belt_One_Road.pdf; Servant, J. (2019, December 11). China steps in as Zambia runs out of loan options. Retrieved December 08, 2020, from https://www.theguardian.com/global-development/2019/dec/11/china-steps-in-as-zambia-runs-out-of-loan-options; Muchira 03-16-2021 02:22:00, N. (2021, March 16). Kenya: China cannot Seize port of Mombasa if debt Default Occurs. Retrieved April 13, 2021, from https://www.maritime-executive.com/article/kenya-china-cannot-seize-port-of-mombasa-if-debt-default-occurs#:~:text=Kenya%3A%20China%20Cannot%20Seize%20Port%20of%20Mombasa%20if%20Debt%20Default%20Occurs,-Courtesy%20Mombasa%20Port&text=The%20National%20Treasury%20cabinet%20secretary,to%20finance%20the%20SGR%20project.; Abi-habib, M. (2018, June 25). How China got Sri Lanka to cough up a port. Retrieved April 13, 2021, from https://www.nytimes.com/2018/06/25/world/asia/china-sri-lanka-port.html
[12] Dukhan, note 8, supra.

This second prong entails the diversion of the refining of African mineral resources to the PRC. For instance, in 2017 the PRC was responsible for refining 59.5% of the total of cobalt refined in the world that year.[13] This prong of the strategy ensures that minerals mined in Africa flow to the PRC, which then gives the PRC a significantly higher degree of control over global mineral flows than it could likely get through physical control of mines alone. Together, the two prongs of the strategy give the PRC significant capabilities to influence global mineral flows and provide the PRC motivation to pressure African governments to continue directing raw minerals out of Africa and into the PRC for refining and processing. The ultimate effect of this two-pronged strategy is that as of 2019, the PRC controls nearly half of the DRC's cobalt refining output through ownership of eight of the 14 largest cobalt mining operations in the DRC, and that the PRC represents 80% of the world's cobalt chemical refining capacity.[14]

ADDITIONAL PROBLEMATIC TRENDS

Three additional trends may also hamper DRC's overall economic development: (i) rapid urbanization; (ii) poor governance, especially when it comes to extractive industries; and (iii) a lack of industrialization. These trends become especially problematic when combined with the geo-political meddling of Russia and the PRC, discussed above. Traditional development strategies have been largely ineffective at spurring sustained economic development in such a difficult domestic environment; a new approach, discussed in the next section, is called for.

First, from 2016 to 2030 the DRC's urban population will grow at a rate of over 4 percent per year, meaning the country will add 1 million urban dwellers to its cities and towns every year. This rate of urban growth implies that the 30 million urban residents the DRC had in 2016 will surge to 44 million by 2030. DRC's capital, Kinshasa, will become Africa's largest megacity by 2030 with 24 million residents, surpassing Cairo and Lagos.[15]

Historically, urbanization in now-high income countries has been associated with many development benefits: boosted incomes, the creation of higher value-added jobs in factories, increased productivity, and increased economic growth. But if urbanization is not competently managed it can bring about several downsides: crime, congestion, intergenerational urban slums, and the spread of contagious disease, among others. Today, the rapid urbanization trajectory of the DRC—and several other countries in sub-Saharan Africa, for that matter—is arguably creating more downsides than benefits (see Figure 1[16]). This is an urgent policy issue that must be remedied.

Second, poor governance is another significant problem that makes it substantially more difficult to accommodate rapid urban expansion. This is largely because DRC is urbanizing at much lower governance levels and with weaker state capacity than most high-income countries. For example, when the US became over 50% urbanized in the 1920s, it had per capita incomes of USD$7,500. Similarly, when China and South Korea reached over 50% urbanized, they had incomes per capita of about USD$4,500. Conversely, DRC is careening towards 50% urbanized at per capita incomes of just over USD$450, magnitudes lower than has historically been the norm.[17] This means that Congolese cities and towns, while adding 1 million new urban dwellers per year, have remarkably fewer resources available to provide needed infrastructure, housing, education, hospitals, and other basic services that make cities livable. The result is that in 2018, the year with the most recent data, a staggering 78% of the urban population in the DRC lived in slums.[18] This dire trend is likely to continue if concerted policy action isn't taken.

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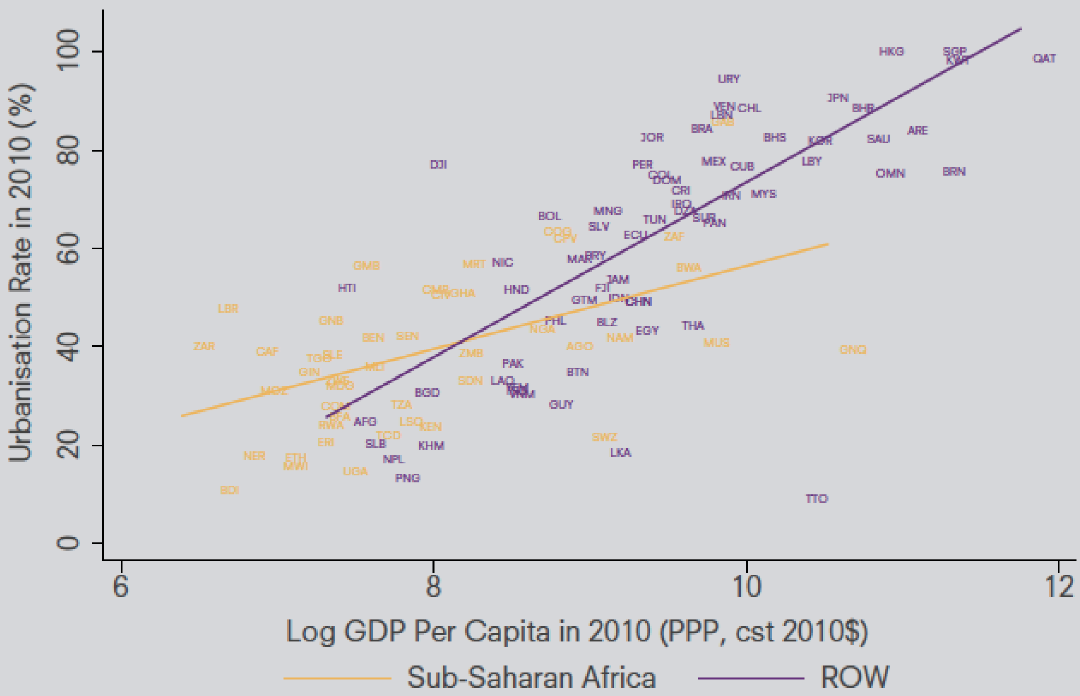
[13]Global and China Cobalt Industry Report, 2018-2023 - ResearchAndMarkets.com. (2018, November 09). Retrieved December 06, 2020, from https://www.businesswire.com/news/home/20181109005417/en/Global-and-China-Cobalt-Industry-Report-2018-2023---ResearchAndMarkets.com

[14]OECD. (2019). Interconnected supply chains: A comprehensive look at due diligence challenges and opportunities sourcing cobalt and copper from the Democratic Republic of the Congo. Retrieved December 06, 2020, from https://mneguidelines.oecd.org/Interconnected-supply-chains-a-comprehensive-look-at-due-diligence-challenges-and-opportunities-sourcing-cobalt-and-copper-from-the-DRC.pdf

[15]World Bank (2018). Democratic Republic of Congo Urbanization Review: Productive and Inclusive Cities for an Emerging Democratic Republic of Congo. World Bank Group: Washington, DC

[16]Dercon, S. et al. (2019). "Can Africa Learn from the Chinese Urbanizations Story." International Growth Centre: Oxford. https://www.theigc.org/publication/can-africa-learn-from-the-chinese-urbanisation-story/

Figure 1: Relationship between the urbanisation rate (%) in 2010 and log GDP per capita (PPP, constant 2010$) for a sample of 116 countries



Note: Sub-Sahara Africa (N = 46), Asia (27), Latin American and the Caribbean (26) and Middle-East and North Africa (17). The graph splits the sample into Sub-Saharan African countries and all others in the sample from the rest of the world

Poor governance in the DRC has several other manifestations. First, instability and conflict have been ever-present risks for both individuals and businesses over the last few decades. Second, service delivery and public goods provision are all but absent in rural areas. Third, large regions of the country are, in essence, ungoverned or ruled by rebel groups. All of these governance factors mean that DRC's urbanization is peculiar: to avoid the above three factors people are pushed to migrate to cities, unlike in most other countries throughout history where urbanization occurs as the result of pull factors like better employment opportunities in cities.[19]

Poor governance is especially evident when it comes to DRC's extractive industries. Most notably, this industry is plagued with minerals that are extracted with child labor or are used to fund conflicts. In terms of child labor, in the DRC's copper belt 13% of those working in mines are under the age of 18. Additionally, armed groups will often finance their operations through the sale of minerals.[20] While there is guidance on how companies can conduct due diligence tracing the origins of the minerals that they buy, it can be difficult to effectively and accurately trace the origins of all of the minerals that a company purchases.[21]

[17] See 'Ed Glaeser & Paul Romer on Rapid Urbanization' here: https://www.youtube.com/watch?v=nZGdyowWVzw&t=269s
[18] The World Bank. (2021). Population living in slums (% of urban population) - Congo, DEM. REP. Retrieved April 15, 2021, from https://data.worldbank.org/indicator/EN.POP.SLUM.UR.ZS?locations=CD
[19] World Bank (2018), note 15, supra.

Third, due to the DRC's excessive reliance on natural resources, it has had a particularly difficult time diversifying its economy, by, for example, establishing a domestic manufacturing base. This is in line with the "Dutch Disease," whereby large resource exports result in the appreciation of the domestic currency, making domestic manufactures relatively more expensive (and less competitive) on international markets. Uncompetitively priced manufactures prevents a domestic manufacturing base from emerging. This lack of industrialization is problematic because urbanization without industrialization is associated with lower worker productivity, fewer productive jobs, and therefore likely has negative consequences for long-run development.[22]

A NEW APPROACH: CHARTER CITIES

Charter cities are one such novel solution. A charter city is a city granted a special jurisdiction to create a new governance system. This special jurisdiction allows city officials to adopt a more business-friendly legal and regulatory environment. Such a city has a significant degree of devolved authority within a nation and/or province. This devolution of decision-making ability and policy implementation allows for those managing the city to enact deep institutional reforms that improve governance, increase responsiveness to local businesses and residents, crowd in investment, boost job creation, and in turn jump-start economic growth. Charter cities are not an exit from a political unit, they are a co-development strategy with their host country. If a charter city gets to the point where there is a real risk of violent confrontation with the host country, they have already lost. To this end, all responsibility for national defense and foreign affairs would remain with the host country's government.

In the case of the DRC, a charter city could serve as a social and economic hub of modernization and development. As this policy paper focuses on the supply chains of critical minerals, it follows that locating a charter city (or cities) in the mining-heavy regions of Kasaï or Katanga is most sensible. Such a project would be aimed at improving the regional and national economies in south and central DRC with mineral supply chains anchoring further local economic development. Additionally, a charter city project would serve as a reliable supplier of refined critical minerals for high-tech industries from North America and the EU. The project would be able to secure mineral supply chains more effectively than can be done currently because the creation of a special jurisdiction would enable better monitoring and management of supply chains through improved rules and enforcement. Furthermore, one or more charter cities would result in significantly improved local governance, and would therefore help better accommodate the DRC's rapidly urbanizing population while providing much-needed alternatives to rural-to-urban migrants ending up in slums.

This jurisdiction would be funded primarily through a public-private partnership between the national and relevant provincial governments of the DRC on the one hand, and high-tech and extractive industry companies on the other. This arrangement would allow for the recruitment of the most qualified Congolese and international experts who would be able to apply the improved set of rules within the jurisdiction, in order to more rapidly address the issues of urbanization, governance, industrialization, poverty reduction, and supply chain due diligence. The goal of the charter city would be to establish a jurisdiction where a substantially higher amount of the DRC's minerals would be refined and processed within country, providing a remedy to the current situation where the PRC dominates latter stages of critical mineral supply chains. By pursuing a co-development strategy through the implementation of charter cities, the DRC can avoid entering into lop-sided and often unfavorable relationships with Russian and Chinese firms; relationships that have the potential to, at times, turn predatory.

[20] OECD, note 14, supra.
[21] Ibid.
[22] Gollin, D., Jedwab, R. & Vollrath, D. "Urbanization with and without industrialization." J Econ Growth 21, 35–70 (2016). https://doi.org/10.1007/s10887-015-9121-4. See also Rodrik, D. (2013). "The Perils of Premature Deindustrialization." Prague: Project Syndicate.

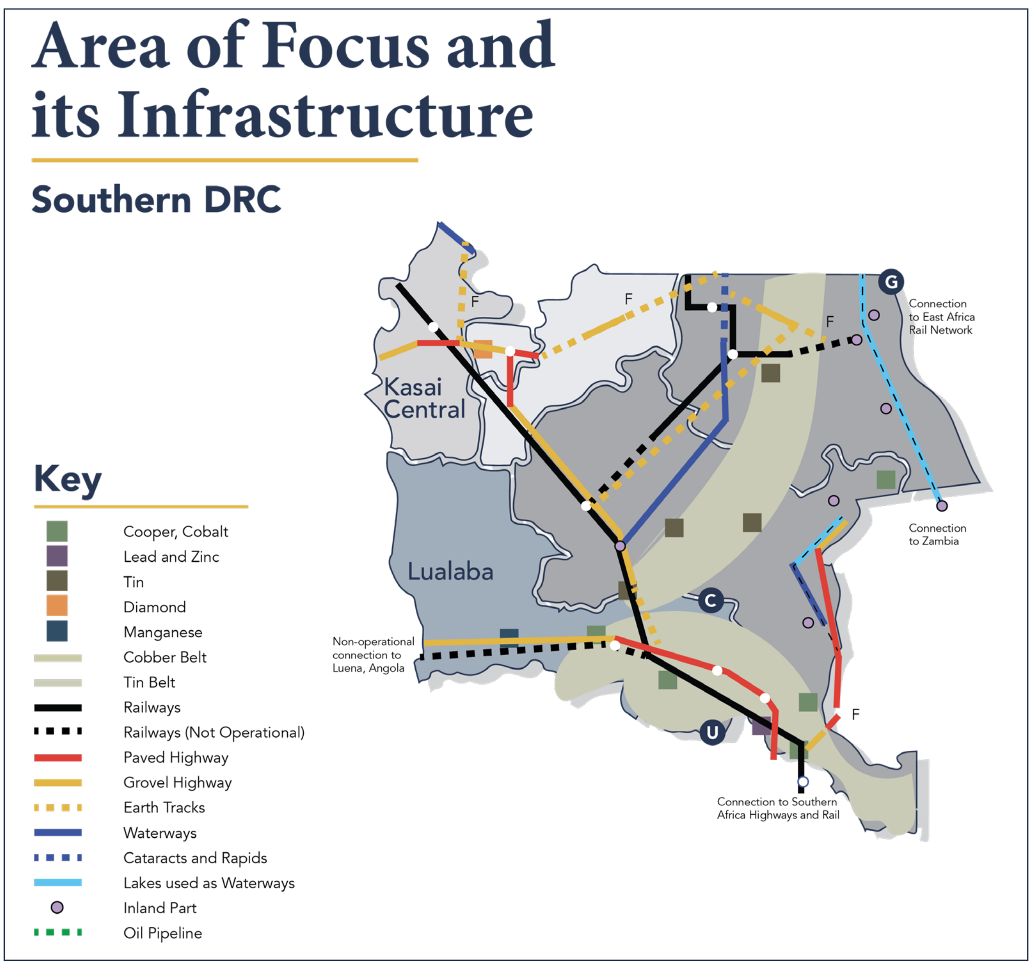
There are two provinces that are prime locations for a charter city project: Central Kasaï and Lualaba.

CENTRAL KASAÏ

Central Kasaï possesses a large deposit of nickel, as well as cobalt, chrome, diamond and gold. The province has huge potential for the production of hydroelectric energy for its industry and can export its minerals through Angola. Fortunately, the province is stable and has no militias. Furthermore, Hubert Kabasu Babu Katulondi, former governor of Kasaï Occidental province, which Central Kasaï was split from, is a supporter of the implementation of a charter city.

LUALABA

Lualaba also possesses large deposits of copper and cobalt. This province has access to ports through access to Zambia's more developed transportation networks via rail and highway links with Zambia that go on to connect to the rail and highway networks of Mozambique and South Africa. Lualaba is also fort unately a stable part of the DRC and has the added advantage of being near some of the most well-developed industrial capacity in the country. This well-developed industrial capacity means that any charter city established in this province would be close to a population of skilled and experienced labor, and increasingly available and reliable hydroelectric power.[23]



[23] African Energy. (2019, July 12). DR Congo: Tembo Power outlines Lualaba hydro plan. Cross-border Information. https://www.crossborderinformation.com/news/monitoring-news/dr-congo-tembo-power-outlines-lualaba-hydro-plan.

CONCLUSION

Through a charter city project in the mineral-rich DRC, North America and the EU can secure their critical mineral supply chains from geopolitical competitors at the same time as helping spur sustained economic development in concentrated regions in the DRC. Importantly, such a project would benefit the people of the DRC by drawing in well-financed stakeholders who are keen on bringing stability and security to a charter city and its residents. This win-win project will provide a significant material improvement to the lives of the Congolese people while establishing secure and reliable supply chains for the people of North America and the EU.

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