

---

## 5 King Leopold's ghost: The legacy of labour coercion in the DRC

---

**Sara Lowes and Eduardo Montero**

Harvard University

The Democratic Republic of Congo (DRC), located in the centre of Africa, is one of the world's poorest countries. Prior to becoming the DRC, Zaire, or even the Belgian Congo, it was the Congo Free State (CFS), the personal colony of King Leopold II of Belgium. Between 1885 and 1908, it was the site of some of the worst human rights abuses in Africa's colonial history. In fact, historians Hochschild and Vansina estimate that 10 million people, approximately half of the population of Congo, died between 1880 and 1920 (Vansina 2010 and Hochschild 1998). Motivated by a desire to profit from soaring natural rubber prices, Leopold granted private companies concessions to extract rubber in the upper Congo basin. The concession companies, with the support of the *Force Publique*, and with their own militias, forced people to collect rubber as a form of taxation. Those who did not meet the quotas for rubber collection were subjected to severe punishment and violence.

In an academic working paper, Lowes and Montero (2016) examine the long-term effects of labour coercion on economic development in the DRC, using the well-defined boundaries of the two largest historical rubber concessions from the CFS-era, ABIR and Anversoise. This work relates to several literatures on understanding Africa's comparative development. First, a growing literature in economics documents that Africa's colonial history has important implications for its economic development. For example, Nunn (2008) demonstrates that African countries with a greater exposure to the Atlantic slave trade are less developed today. Michalopoulos and Papaioannou (2016) study how the country borders that were arbitrarily drawn under colonialism have led to more conflict and lower development, by comparing partitioned to non-partitioned ethnic groups. Second, during the colonial era labour coercion was widely prevalent.

There is evidence that historical labour coercion affects present day development. Dell (2010) examines the long-term impacts of the mining mita in Peru that lasted over two centuries. The labour coercion in the CFS was extremely violent, but also of relatively short duration compared to the mining mita or the slave trade. Finally, Lowes and Montero (2016) address the literature on the effects of indirect rule within Africa. Mamdani (1996) argues that the strategy of indirect rule, during the colonial era, may have undermined the accountability of local leaders. Lowes and Montero (2016) examine the effects of the co-option of chiefs during the rubber era on the quality and accountability of local leaders.

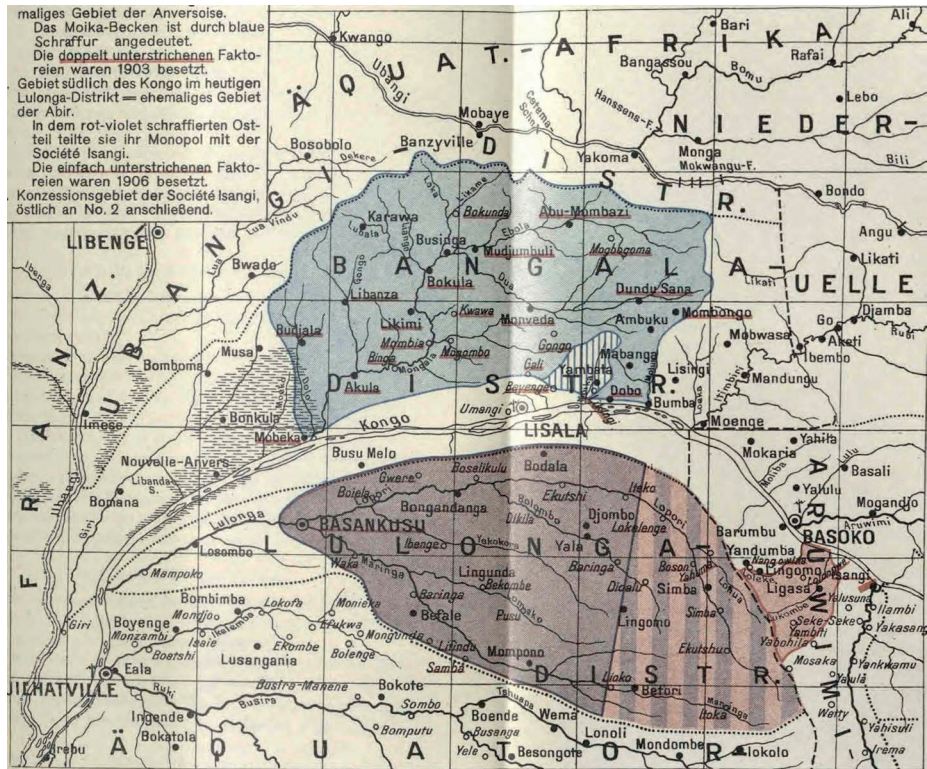
## **History of the CFS rubber concessions**

European colonisers had claimed much of Africa by the mid-1870s, yet central Africa remained largely unexplored. King Leopold II leveraged the mistrust between the British, French and German governments, regarding their colonial aspirations, to negotiate the creation of the Congo Free State, as his own personal colony, in 1885. In return, Leopold promised to end the slave trade and to maintain the Congo as a free-trade zone for individuals of all nationalities (Nzongola-Ntalaja 2007). A condition of his control over the CFS was that he needed to demonstrate state presence within the Congo. This proved to be costly, and by 1890 Leopold had spent almost the entirety of his father's fortune in the Congo (Van Reybrouck 2014). His financial troubles coincided with the invention of the pneumatic tyre, which greatly increased the demand for natural rubber. Congo had an abundance of natural rubber, offering Leopold an opportunity for profits.

In 1892, because the CFS had limited capacity and manpower, Leopold granted concessions to private companies to extract rubber. The two largest concessions that focused primarily on rubber were ABIR and Anversoise. As most of the interior of DRC was unexplored at the time, the boundaries of these two concessions were determined using salient geographic characteristics - in this case, major rivers and their tributaries. ABIR was situated between the Maringa and Lopori rivers and Anversoise occupied the Mongala river basin. Figure 1 shows an historical map illustrating the concession borders and Figure 2 presents a map of the digitised concession borders and the modern DRC border.

Leopold was a majority stakeholder in both companies and the CFS shared in the profits of the companies (Harms 1975).

**Figure 1.** Historical map of the rubber concessions



*Notes:* The Anversoise rubber concession is the northern concession and the ABIR concession is the southern concession in the figure above. The original map is from (Waltz 1918).

In the sparsely populated concessions, access to labour was a key constraint on the rubber production process. The rubber companies set up systems to ensure control over and access to labour. European agents were sent to the interiors of the concessions to establish posts. They would survey surrounding villages to create a census of adult men and quotas were then set, based on these population counts. Generally, male villagers were required to deliver around 4 kilos of dried rubber to the European agents every two weeks. Additionally, villages were required to provide food and supplies to nearby posts (Harms 1983).

**Figure 2.** The Democratic Republic of Congo and the rubber concession borders



Notes: The map illustrates the present day boundaries of the Democratic Republic of Congo and the digitised rubber concession boundaries.

To collect rubber, villagers would travel into the jungle to tap *landolphia* vines. The process could take days, and, as natural rubber supplies dwindled, villagers would take almost the entire two weeks to fill the mandated quota. The punishment for not meeting the quota was severe – individuals could be imprisoned and subjected to various forms of physical violence, including burning, whipping by the *chicotte* (a whip made of hippopotamus hide), or death. Figure 3 and Figure 4 provide contemporaneous illustrations of the rubber collection process and the *chicotte* punishment, respectively.



**Figure 3.** Illustration of the rubber collection process



Notes: Frederic de Haenen, *How the White Man Trades in the Congo, Bringing in Rubber and Hostages*, 1906. Gouache and ink wash. Graphic Arts Collection, Firestone Library, Princeton University. <https://graphicarts.princeton.edu/2013/09/14/how-the-white-man-trades-in-the-congo/>

**Figure 4.** Illustration of punishment by the chicotte



Notes: Frederic de Haenen, *The Chicotte (The Whipping)*, 1906. Gouache and ink wash. Graphic Arts Collection, Firestone Library, Princeton University. <https://graphicarts.princeton.edu/2013/09/14/how-the-white-man-trades-in-the-congo/>

The soldiers from the *Force Publique* and sentries from the concession companies' private militias were primarily responsible for carrying out these violent tactics, although European agents also imprisoned and tortured villagers. Sentries armed with rifles were assigned to each post. To prevent waste, the sentries were required to provide a human hand for every bullet used.

Robert Casement, a British consul, was sent to Congo to investigate accusations of atrocities. First hand African accounts document the intensity of the labour coercion:

*“When I was still a child, the sentries shot at the people in my village because of the rubber. My father was murdered: they tied him to a tree and shot and killed him, and when the sentries untied him they gave him to their boys, who ate him. My mother and I were taken prisoner. The sentries cut off my mother’s hands while she was still alive. Two days later, they cut off her head.”* (Janssens 1904)

The primary responsibility of the sentries was to ensure rubber production. The head sentry for a village, called the *kapita* (which today is a Lingala word used to denote ‘village chief’), would assert his authority over a village by undermining men in positions of esteem or authority. According to accounts by Morel (1904), the village headmen were *“shamelessly degraded in the eyes of their people, made to fetch and carry for soldiers, cast into chains and flung into prison”*.

Though the CFS government objected publicly to the violence, in practice it encouraged and benefitted from it (Hochschild 1998). The concession companies made exorbitant profits, particularly as rubber prices increased from 6.20 francs per kilo in 1894 to over 10 francs per kilo in 1898. Meanwhile, the estimated cost incurred by the concession companies to ‘purchase’ a kilo of rubber in CFS was approximately 1.35 francs (Harms 1983). The magnitude of profits earned by the concession companies led one contemporary observer to note that *“ABIR has in a single fiscal year made a net profit that represents more than twelve times the initial capital investment. Such a result is perhaps without precedent in the annals of our industrial companies”* (Plas and Pourbaix 1899).

The intense extraction efforts by the rubber concessions and the destruction of the delicate *landophilia* vines meant that the natural rubber supplies were nearly exhausted in the Upper Congo Basin by 1905. This coincided with the release of the Casement report, documenting the human rights abuses in the CFS. Facing dwindling rubber supplies and condemnation of their labour practices, ABIR and Anversoise left the CFS in 1906. In 1908, the CFS became a Belgian colony (Harms 1975).

The regime of labour coercion had disastrous effects for the local population, including famine, spread of sleeping sickness, and low fertility rates. The brutality of the rubber collection tactics earned the policy the nickname '*Red Rubber*' (Vangroenweghe 1985).

## **The long-run effects of labour coercion**

To examine the long-term effects of the rubber concessions, Lowes and Montero (2016) use Demographic and Health Survey (DHS) data from 2007 and 2014 to test whether the former concessions have worse development outcomes today. The well-defined concession boundaries allow them to use a geographic regression discontinuity design – essentially comparing villages just inside the former concession borders to those just outside the former concession borders – to causally identify the effect of labour coercion on three primary outcomes of interest: years of education, wealth and health. Similar to the borders studied by Michalopoulos and Papaioannou (2016), the concession boundaries were determined at a time when there was little knowledge of the geography of the interior of Congo. Thus, Lowes and Montero (2016) compare areas that were geographically similar and were culturally identical at the time of colonial contact but differed only with respect to whether they became part of the rubber concession.

Lowes and Montero (2016) find that former concession areas have significantly worse education, wealth and health outcomes relative to places just outside the concessions. Individuals inside the concessions have on average 1.5 fewer years of education, are 20% less wealthy, and have lower height-to-age percentiles, which is a measure of cumulative health status. Additionally, they compare older and younger age cohorts within the DHS and find no evidence that outcomes are improving over time. These results suggest that a 14-year event, occurring over 100 years ago, still matters for understanding the relative development of these former concession areas.

This naturally leads to the question of why this historical event still affects present day development. One potential explanation is that the subsequent Belgian government invested less in infrastructure inside the former concessions. Alternatively, since missionaries were the primary providers of schooling during the colonial era, if there were fewer Catholic and Protestant missions inside the former concessions, then perhaps this can explain the observed results.



However, using maps on colonial investments in health centres, roads, and mission stations, Lowes and Montero (2016) find no evidence that there was differential investment in the region by the Belgian colonial administration nor that there was differential missionary presence.

Previous work has highlighted the importance of institutions for explaining differences in development (Acemoglu *et al.* 2001). Using survey data collected near the border of the Anversoise concession, Lowes and Montero (2016) test whether villages within the former concessions have lower quality local institutions. The historical co-option of village chiefs to support the rubber regime may have undermined long-term local institutional quality. They measure institutional quality by the extent to which the chief provides various public goods for the village and how chiefs are chosen. They find that village chiefs within the former concessions are less likely to provide critical public goods, such as road maintenance and conflict arbitration. Additionally, they are less likely to be elected to their position and are more likely to be hereditary. These results provide important evidence that even a relatively short-term exposure to violence and extractive colonial institutions can affect present day economic development, if it undermines institutional quality.

These findings are related to the work by Mamdani (1996), who argues that indirect colonial rule created unaccountable chiefs in Africa, and work by Acemoglu *et al.* (2014) on how the denomination of different numbers of ruling families by the colonial government has affected development in Sierra Leone. Acemoglu *et al.* (2014) find that districts with fewer ruling families, and therefore less political competition, experience worse development outcomes but higher levels of social capital. Interestingly, Lowes and Montero (2016) also find evidence that individuals from former concessions trust their local chiefs more than those individuals outside the former concessions, even though the chiefs inside the former concessions provide fewer public goods today.

## Conclusion

Lowes and Montero (2016) examine an important and brutal episode of colonial labour coercion. Despite the rubber regime having lasted only 14 years, Lowes and Montero (2016) demonstrate that the labour coercion has undermined long-run development in the DRC. Individuals in former rubber concession areas have lower levels of education, are poorer, and have worse health outcomes than individuals just outside the concessions. Using data collected along the boundary of one of the former concessions, Lowes and Montero (2016) provide evidence that the rubber concessions have affected local institutional quality. Studying the legacy of this historical event – the Congo Free State rubber concessions and their aftermath – highlights the role of history for understanding the process of economic development. Even historical events of short duration can have long-lasting effects on development and local institutional quality.

## References

- Acemoglu, Daron, Simon Johnson, and James A. Robinson (2001), “[The Colonial Origins of Comparative Development: An Empirical Investigation](#)”, *American Economic Review*, 91 (5), 1369–1401.
- Acemoglu, Daron, Tristan Reed, and James A. Robinson (2014), “[Chiefs: Economic Development and Elite Control of Civil Society in Sierra Leone](#)”, *Journal of Political Economy*, 122 (2), 319–368.
- Dell, Melissa (2010), “[The Persistent Effects of Peru’s Mining Mita](#)”, *Econometrica*, 78 (6), 1863–1903.
- Harms, Robert (1975), “[The End of Red Rubber: A Reassessment](#)”, *Journal of African History*, 16 (1), 73–88.
- Harms, Robert (1983), “[The World Abir Made: The Maringa-Lopori Basin, 1885-1903](#)”, *African Economic History*, 12, 125–139.
- Hochschild, Adam (1998), *[King Leopold’s Ghost: A Story of Greed, Terror, and Heroism in Colonial Africa](#)*, Houghton Mifflin.

Janssens, E. (1904), Africa archives, papers D1366 11/22/1904. Federale Overheidsdienst Buitenlandse Zaken.

Lowes, Sara and Eduardo Montero (2016), *Blood Rubber: The Effects of Labor Coercion on Development and Culture in the DRC*, Working Paper.

Mamdani, Mahmood (1996), *Citizen and Subject: Contemporary Africa and the Legacy of Late Colonialism*, Princeton: Princeton University Press.

Michalopoulos, Stelios and Elias Papaioannou (2016), “The Long-Run Effects of the Scramble for Africa,” *American Economic Review*, 106 (7), 1802–1848.

Morel, Edmund Dene (1904), *King Leopold's Rule in Africa*, London: W. Heinemann.

Nunn, Nathan (2008), “The Long Term Effects of Africa's Slave Trades,” *Quarterly Journal of Economics*, 123 (1), 139–176.

Nzongola-Ntalaja, Georges (2007), *The Congo from Leopold to Kabila: A People's History*, New York, NY: Zed Books.

Plas, J. and Victor Pourbaix (1899), *Les Sociétés Commerciales Belges et le Régime Économique et Fiscal de L'état Indépendant du Congo*, Brussels: Van Assche.

Van Reybrouck, David (2014), *Congo: The Epic History of a People*, New York: Ecco.

Vangroenweghe, Daniel (1985), “Le Red Rubber de L'Anversoise 1899-1900 Documents Inédits,” *Annales Aequatoria*, 6, 39–65.

Vansina, Jan (2010), *Being Colonized: The Kuba Experience in Rural Congo, 1880-1960*, Madison: University of Wisconsin Press.

Waltz, Heinrich Jakob (1918), “Das Konzessionswesen im Belgischen Kongo”, *Veröffentlichungen des Reichskolonialmths*, No 9, G Fischer Jena.

## About the authors

**Sara Lowes** is a Ph.D. candidate in the Political Economy and Government program at Harvard University. She graduated from Middlebury College in 2007 with a B.A. in Economics and Political Science. She studies economic development, political economy and economic history. Her most recent work is in the Democratic Republic of Congo. She also has research experience in Uganda, Zambia, Ghana, Nigeria, Bolivia and Vietnam.

**Eduardo Montero** is a Ph.D. candidate in the Economics Department at Harvard University. He is from San Jose, Costa Rica. He graduated from Stanford University in 2010 with a B.A. in Economics, and in 2011 with an M.S. in Statistics. Eduardo's interests are in development economics, political economy, and economic history. His research focuses on Central Africa (in particular, the Democratic Republic of Congo) and Central America.