

Spain: A deforestation exposure assessment

Headlines

15,300 ha

Spain's average annual deforestation exposure in 2021–2023, from **direct trade**

12,800 ha

Spain's average annual deforestation exposure in 2021–2023, **adjusted for re-exports**

–60.4%

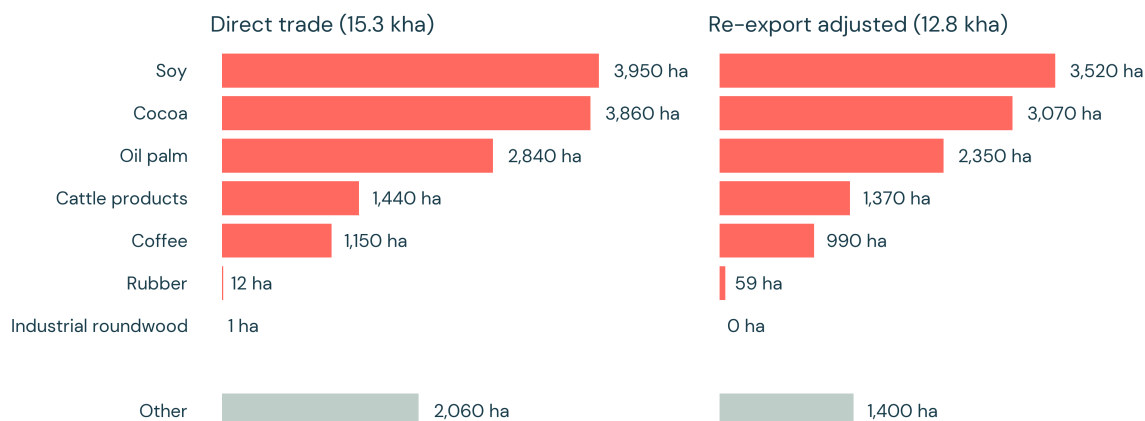
change in total deforestation exposure from 2014–2023, **adjusted for re-exports**

Methods note

This factsheet provides an estimate of the deforestation footprint of Spain's imports, combining data on global bilateral trade and the deforestation associated with 160+ different agricultural commodities. It is intended to help identify the most likely sources, trends and hotspots in global deforestation exposure. Deforestation exposure is likely to be underestimated for commodities that are often imported in more processed forms, particularly wood and rubber products. Please refer to the end of the factsheet for some key considerations, or read the full [methods note](#) for more detail on data sources and limitations.

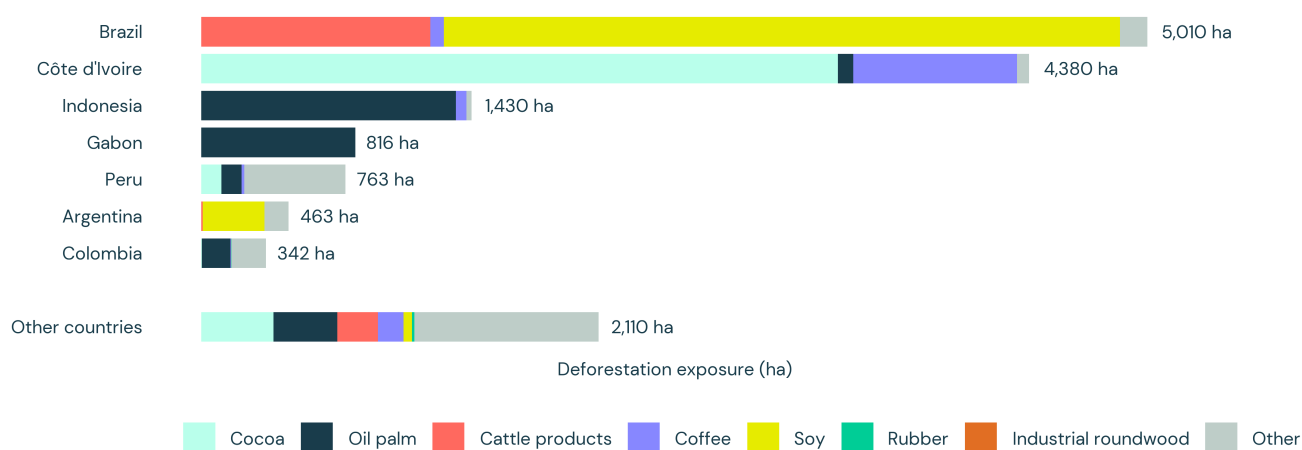
Deforestation exposure by commodity and trade perspective

Spain's total deforestation exposure was larger from the direct trade perspective (15,300 ha per year) and smaller from the re-export adjusted perspective (12,800 ha per year). The re-export adjustment process uses a mass-balance approach to estimate the likely true origins and destinations of products where supply chains involve multiple trade steps. For more information, see the accompanying [methods note](#). Numbers are average annual exposure from 2021 to 2023.



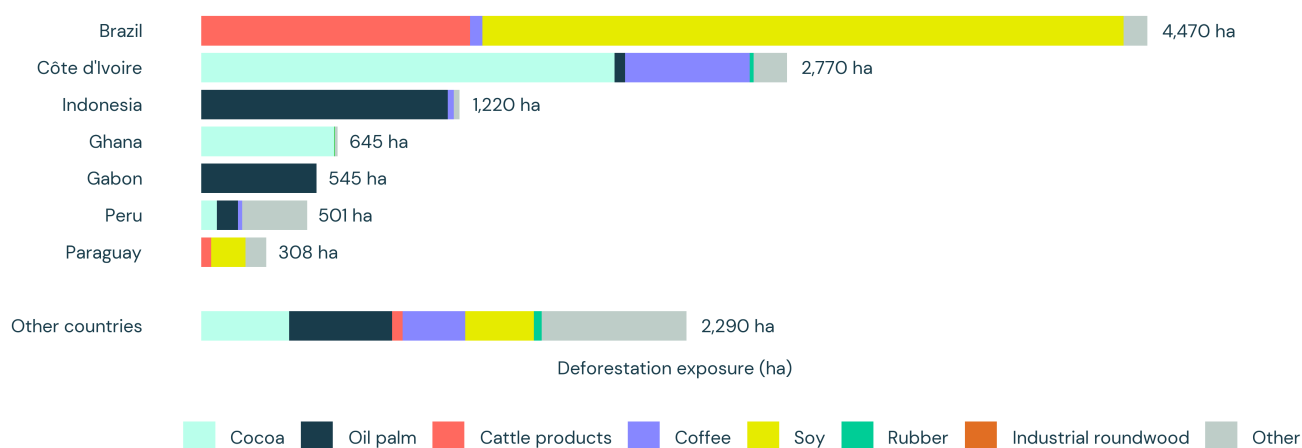
Direct trade deforestation exposure by origin country and commodity

From a direct trade perspective, on average between 2021 and 2023, Spain was most exposed to deforestation in Brazil (5,010 ha, 32.7%), followed by Côte d'Ivoire (4,380 ha, 28.6%) and Indonesia (1,430 ha, 9.3%). Across all origin countries, the most important commodities were soy (3,950 ha, 25.8%), cocoa (3,860 ha, 25.2%) and oil palm (2,840 ha, 18.5%). In Brazil, the most important commodity for Spain's deforestation exposure was soy (3,580 ha, 71.4%), followed by cattle products (1,210 ha, 24.2%). In Côte d'Ivoire, the most important commodity was cocoa (3,370 ha, 76.9%), followed by coffee (867 ha, 19.8%).



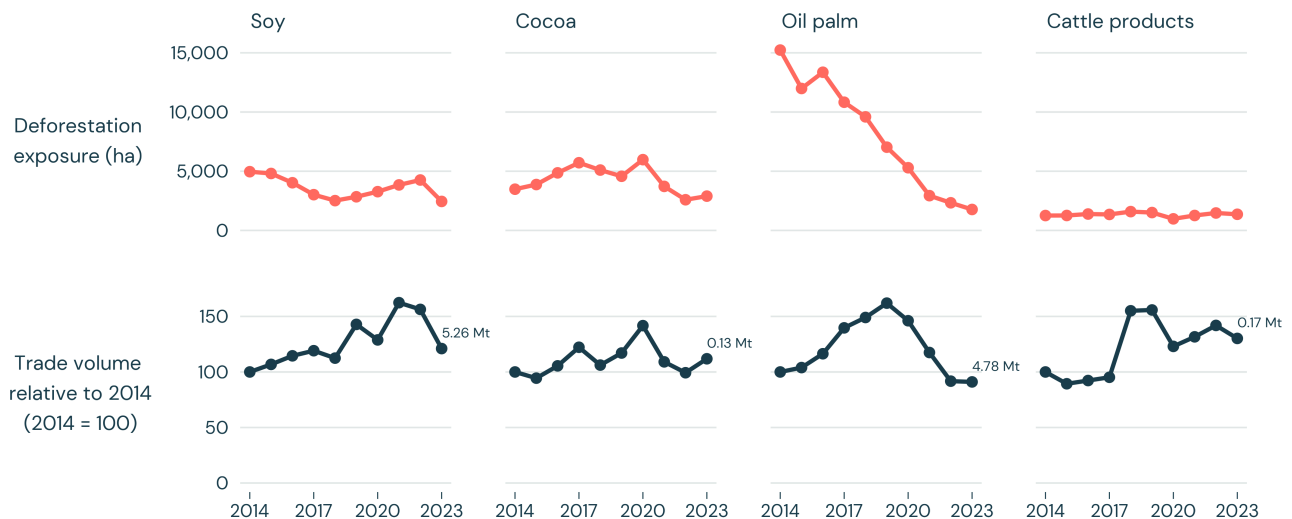
Re-export adjusted deforestation exposure by origin country and commodity

After adjusting for re-exports, on average between 2021 and 2023, Spain was most exposed to deforestation in Brazil (4,470 ha, 35.1%), followed by Côte d'Ivoire (2,770 ha, 21.7%) and Indonesia (1,220 ha, 9.6%). Across all origin countries, the most important commodities were soy (3,520 ha, 27.6%), cocoa (3,070 ha, 24.1%) and oil palm (2,350 ha, 18.4%). In Brazil, the most important commodity for Spain's deforestation exposure was soy (3,030 ha, 67.7%), followed by cattle products (1,270 ha, 28.4%). In Côte d'Ivoire, the most important commodity was cocoa (1,950 ha, 70.5%), followed by coffee (588 ha, 21.2%).



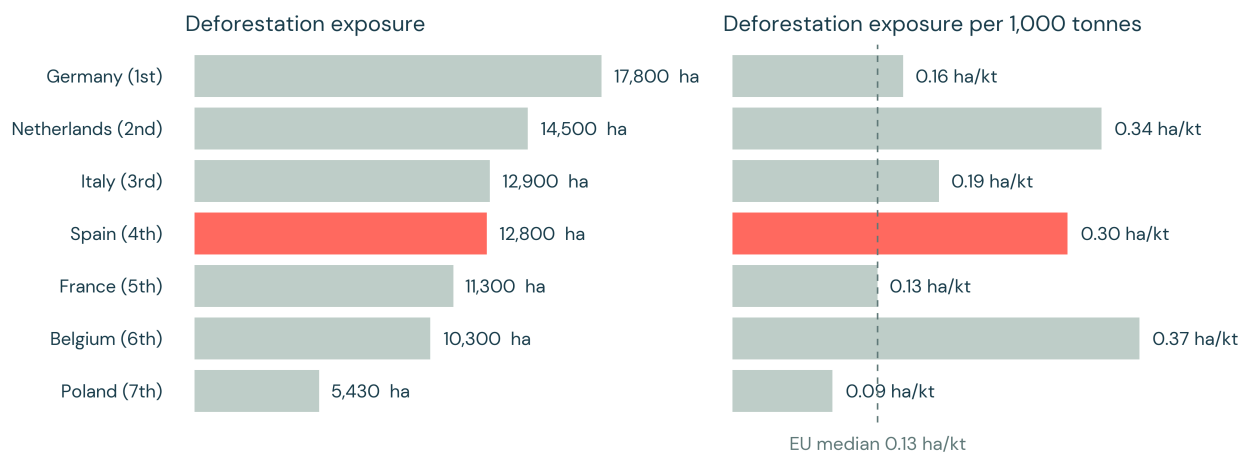
Trends in deforestation exposure and trade volume for top commodities

The following charts show trends in re-export adjusted deforestation exposure and trade volume for the top four commodities (selected based on total deforestation exposure over the last three years of the time series). Overall, Spain's total exposure decreased between 2014 and 2023 by 16,500 ha, a change of -60.4% . Of the top seven commodities, oil palm saw the biggest change over the time series in both absolute and relative terms, with a decrease of $-13,500$ ha (-88.4%).



Comparison with deforestation exposure of other EU countries

After adjusting for re-exports, Spain ranks 4th among EU countries for deforestation exposure, accounting for 11.9% of the EU27 total. Looking at the deforestation per 1,000 tonnes of imported material, Spain ranks 5th at 0.3 ha/kt, higher than the EU median of 0.13 ha/kt.



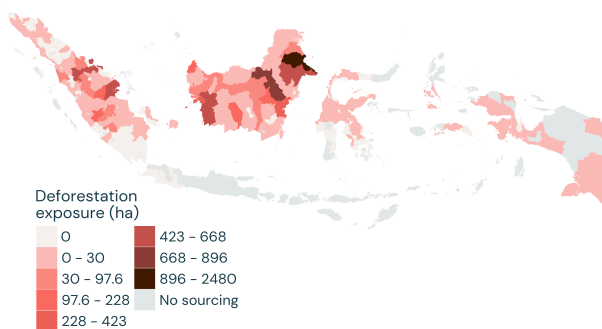
Subnational deforestation exposure

Estimates of subnational deforestation exposure presented in this section will differ from the national-level estimates presented earlier in the factsheet and are not directly comparable. This reflects different definitions of deforestation (in Brazil, for example, the subnational data includes the conversion of any native vegetation, including ecosystems such as the Cerrado), and other methodological differences (e.g. the time periods used to attribute deforestation to commodities can vary substantially between Trase's subnational data and the global dataset used for this factsheet, and can lead to large differences in estimates). See the [methods note](#) accompanying the factsheet for more information.

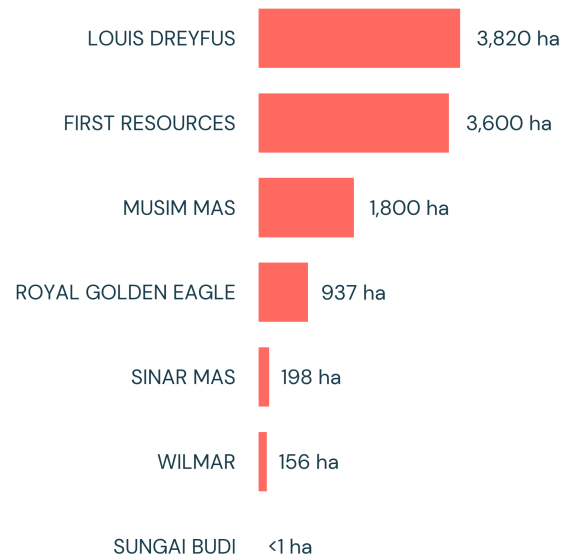
Indonesia palm oil: Subnational detail

Trase data estimates that Spain was exposed to 10,500 ha of deforestation from its direct imports of Indonesia palm oil in 2022, the most recent year with subnational data available. Spain's deforestation exposure was highest in the provinces of Kalimantan Timur (5,590 ha, 53.1%), Riau (2,210 ha, 21%) and Kalimantan Barat (1,440 ha, 13.7%). Zooming in to a finer spatial scale, Spain sourced Indonesia palm oil from 246 kabupaten, while 80% of Spain's exposure was spread across 11 kabupaten. In total, Spain imported Indonesia palm oil from 7 exporters in 2022. The exporter groups most exposed to deforestation were LOUIS DREYFUS, FIRST RESOURCES and MUSIM MAS, which together accounted for 87.7% of Spain's deforestation exposure. To explore the data in more detail, visit trase.earth

Deforestation hotspots for exports to Spain



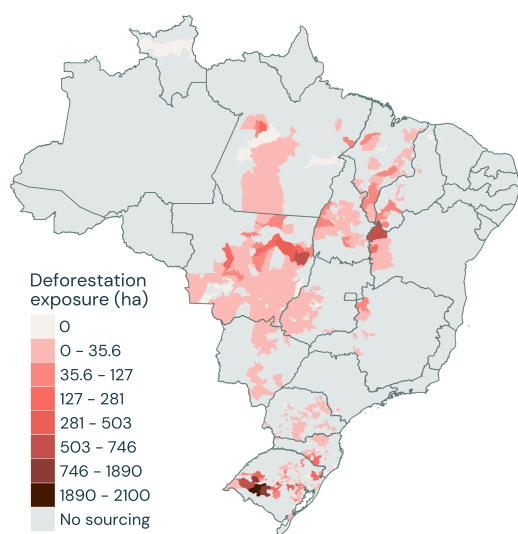
Exporter exposure for exports to Spain



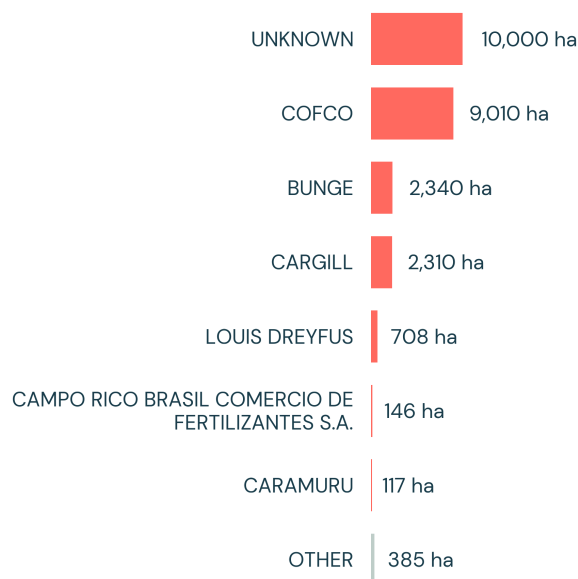
Brazil soy: Subnational detail

Trase data estimates that Spain was exposed to 25,100 ha of deforestation from its direct imports of Brazil soy in 2022, the most recent year with subnational data available. Spain's deforestation exposure was highest in the states of Rio Grande Do Sul (12,300 ha, 49.2%), Mato Grosso (2,380 ha, 9.5%) and Bahia (1,070 ha, 4.3%). For 25% of Spain's imports (6,260 ha), the production location was unknown. In total, Spain imported Brazil soy from 26 exporters in 2022. The exporter groups most exposed to deforestation were COFCO, BUNGE and CARGILL, which together accounted for 59.9% of Spain's deforestation exposure. To explore the data in more detail, visit trase.earth

Deforestation hotspots for exports to Spain



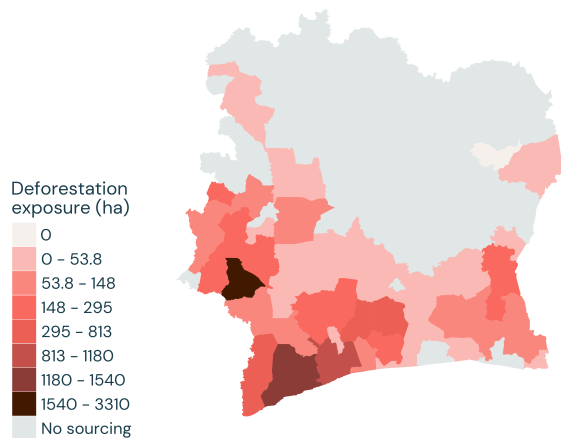
Exporter exposure for exports to Spain



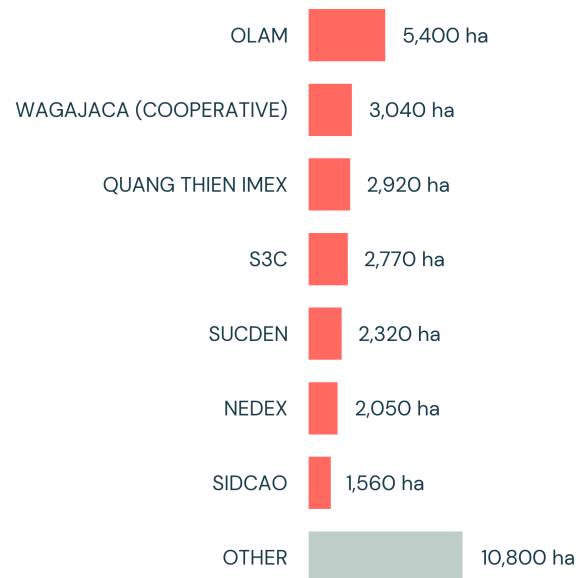
Côte d'Ivoire cocoa: Subnational detail

Trase data estimates that Spain was exposed to 30,900 ha of deforestation from its direct imports of Côte d'Ivoire cocoa in 2021, the most recent year with subnational data available. Spain's deforestation exposure was highest in the departments of Guiglo (3,310 ha, 10.7%), San-Pedro (1,540 ha, 5%) and Sassandra (1,180 ha, 3.8%). Indirect sourcing accounted for 27.2% (8,400 ha) of Spain's deforestation exposure, where it was not possible to determine the department of production. In total, Spain imported Côte d'Ivoire cocoa from 24 exporters in 2021. The exporter groups most exposed to deforestation were OLAM, WAGAJACA (COOPERATIVE) and QUANG THIEN IMEX, which together accounted for 36.8% of Spain's deforestation exposure. To explore the data in more detail, visit trase.earth

Deforestation hotspots for exports to Spain



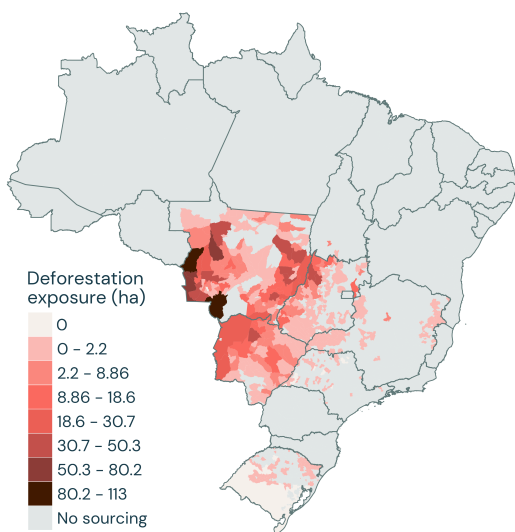
Exporter exposure for exports to Spain



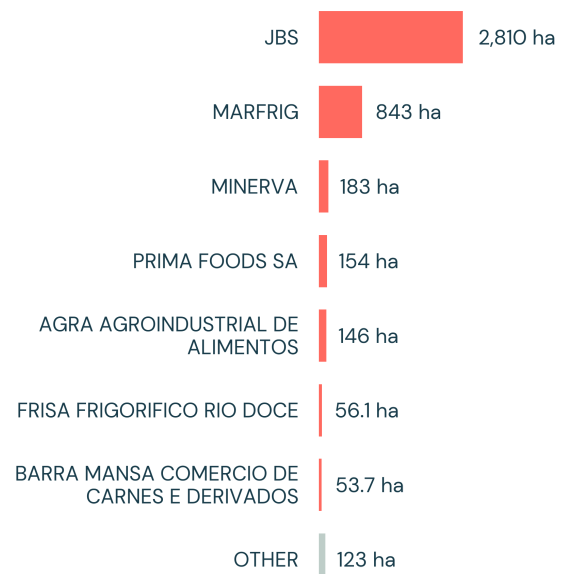
Brazil beef: Subnational detail

Trase data estimates that Spain was exposed to 4,370 ha of deforestation from its direct imports of Brazil beef in 2023, the most recent year with subnational data available. Spain's deforestation exposure was highest in the states of Mato Grosso (1,230 ha, 28.2%), Goiás (275 ha, 6.3%) and Mato Grosso Do Sul (223 ha, 5.1%). For 60% of Spain's imports (2,620 ha), the production location was unknown. In total, Spain imported Brazil beef from 12 exporters in 2023. The exporter groups most exposed to deforestation were JBS, MARFRIG and MINERVA, which together accounted for 87.8% of Spain's deforestation exposure. To explore the data in more detail, visit trase.earth

Deforestation hotspots for exports to Spain



Exporter exposure for exports to Spain



Interpreting this factsheet

To identify the most important commodities and countries globally for Spain's deforestation exposure, this factsheet uses the best available data [linking commodities to deforestation at the global scale](#), based on conversion of natural forests with canopy cover of at least 25%. Due to data availability limitations, we are currently unable to include deforestation exposure estimates for the imports of more processed materials, meaning that deforestation exposure is likely to be underestimated for commodities typically imported in more processed forms – particularly affecting wood and rubber products. We refer you to our [methods note](#) for further details.

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For methods information, data sources, and frequently asked questions, please refer to the [accompanying methods note](#).

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