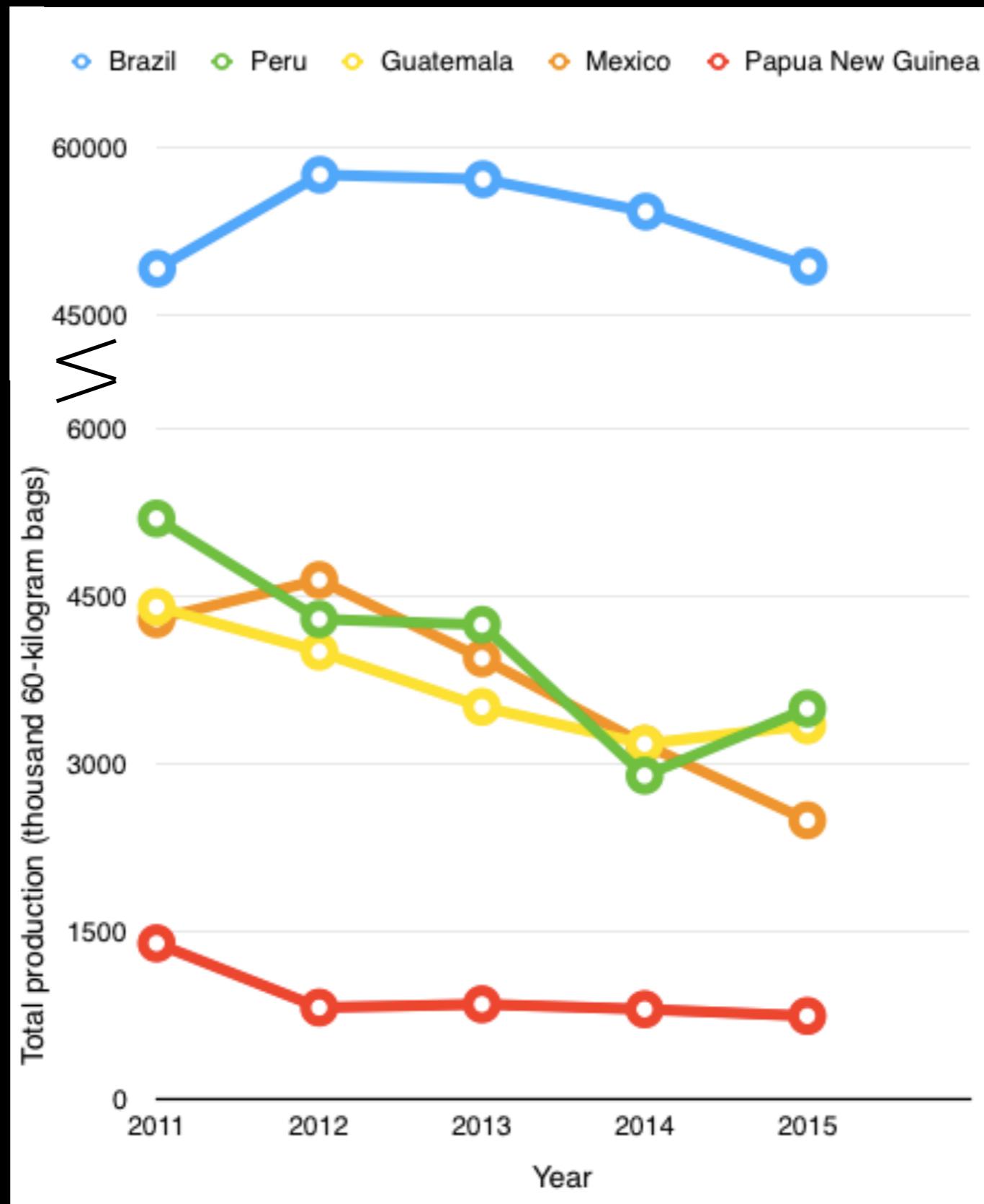


Trouble Brewing

Discovering new regions for optimal coffee growth

Samuel Cheang
Galvanize DSI Cohort 16

Decreasing production over the years in many countries



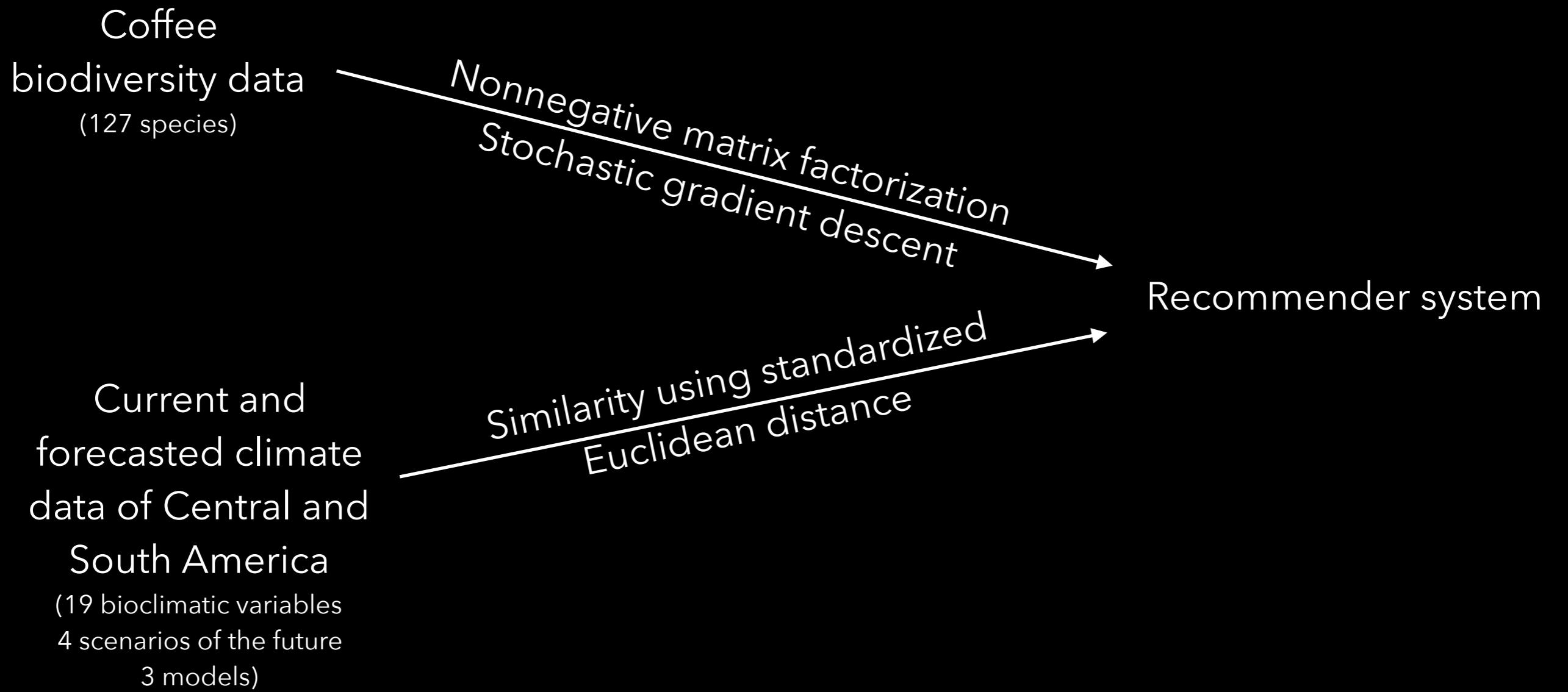


What insight can we glean from our recommender system?

What insight can we glean from our recommender system?

- Not much..

Recommending places CURRENTLY
good for coffee planting is not helpful
if we are planning for the future



Coffea arabica L. (current)



Coffea arabica L. (2020-2049)



Implications

- Financially sensible expansion of coffee farmlands in Central American countries
- Diversification of crops or growth of more resistant coffee trees in Brazil

References

- http://www.ipcc-data.org/guidelines/pages/gcm_guide.html
- <http://www.espressocoffeeguide.com/all-about-coffee-2/coffee-plants/arabica-coffee/>
- <http://www.espressocoffeeguide.com/all-about-coffee-2/coffee-plants/robusta-coffee/>
- S Ponte, 'The "Latte Revolution"? Regulation, Markets and Consumption in the Global CoffeeChain,' *World Development* 30 (2002): 1099-1122
doi:10.1016/S0305- 750X(02)00032-3.
- <http://apps.fas.usda.gov/psdonline/circulars/coffee.pdf>
- <https://www.theatlas.com/charts/ry6JYSDs>

Thank You

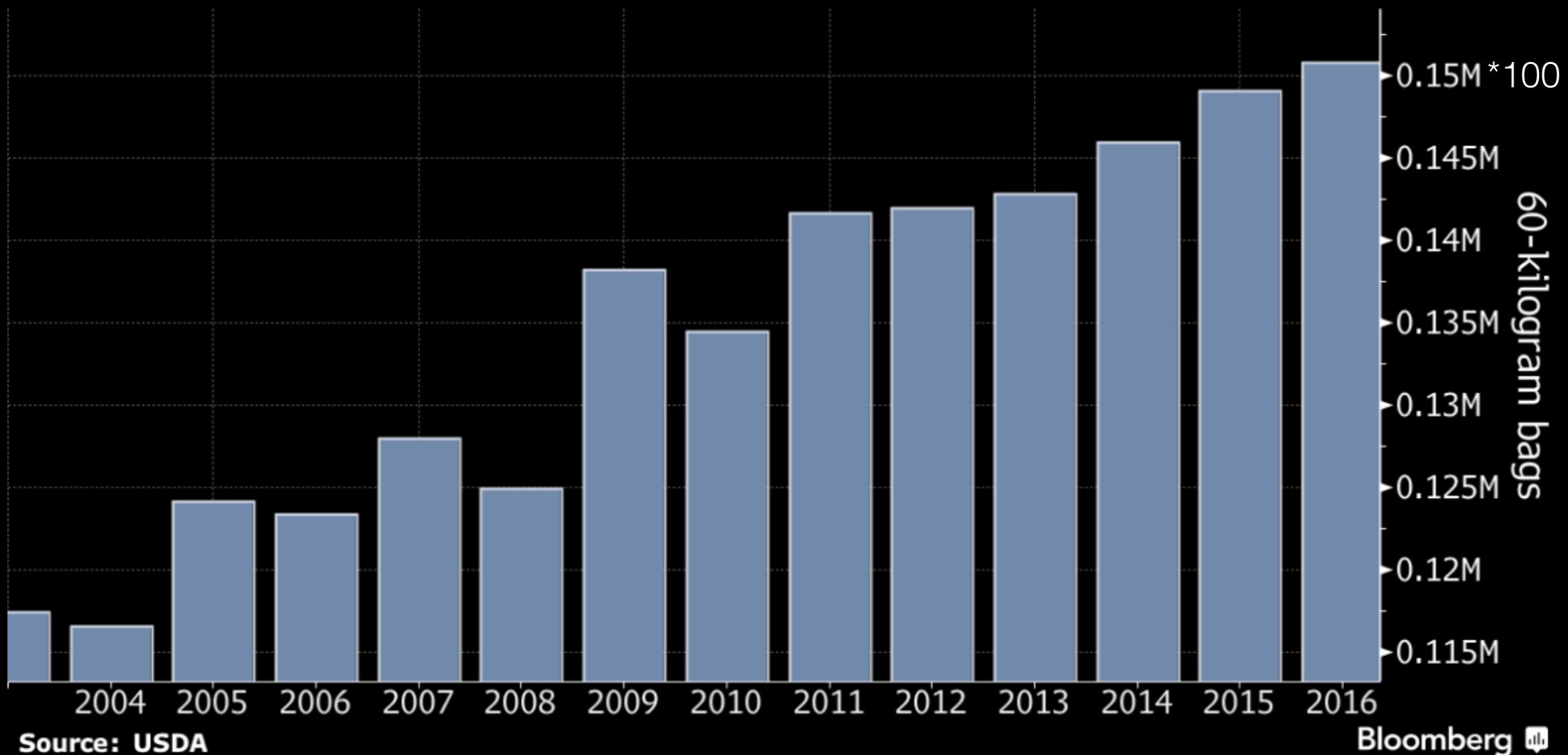
samuelcheang0419@gmail.com

<https://github.com/samuelcheang0419>

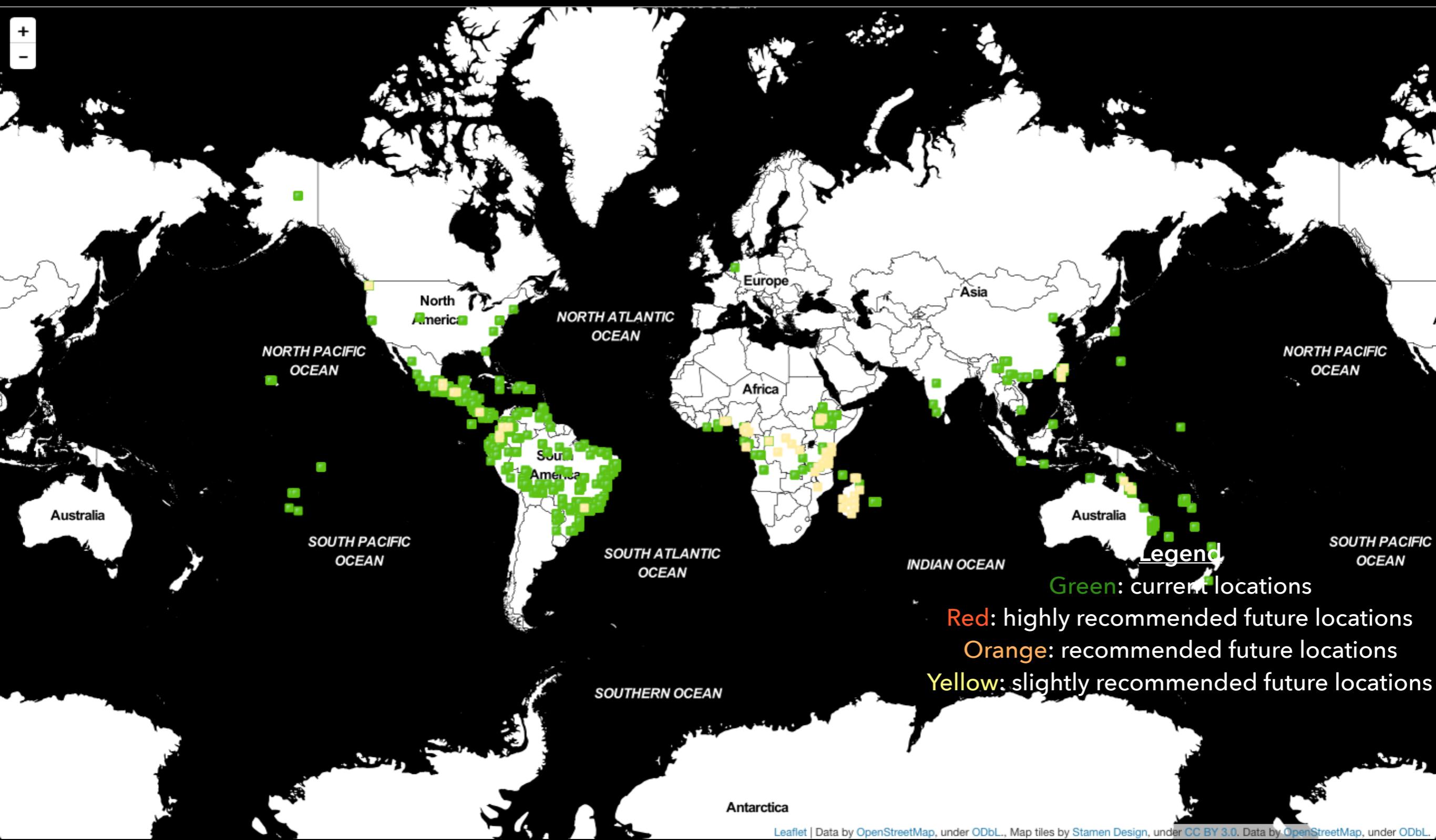
<https://www.linkedin.com/in/samuelcheang0419>

Coffee Cravings

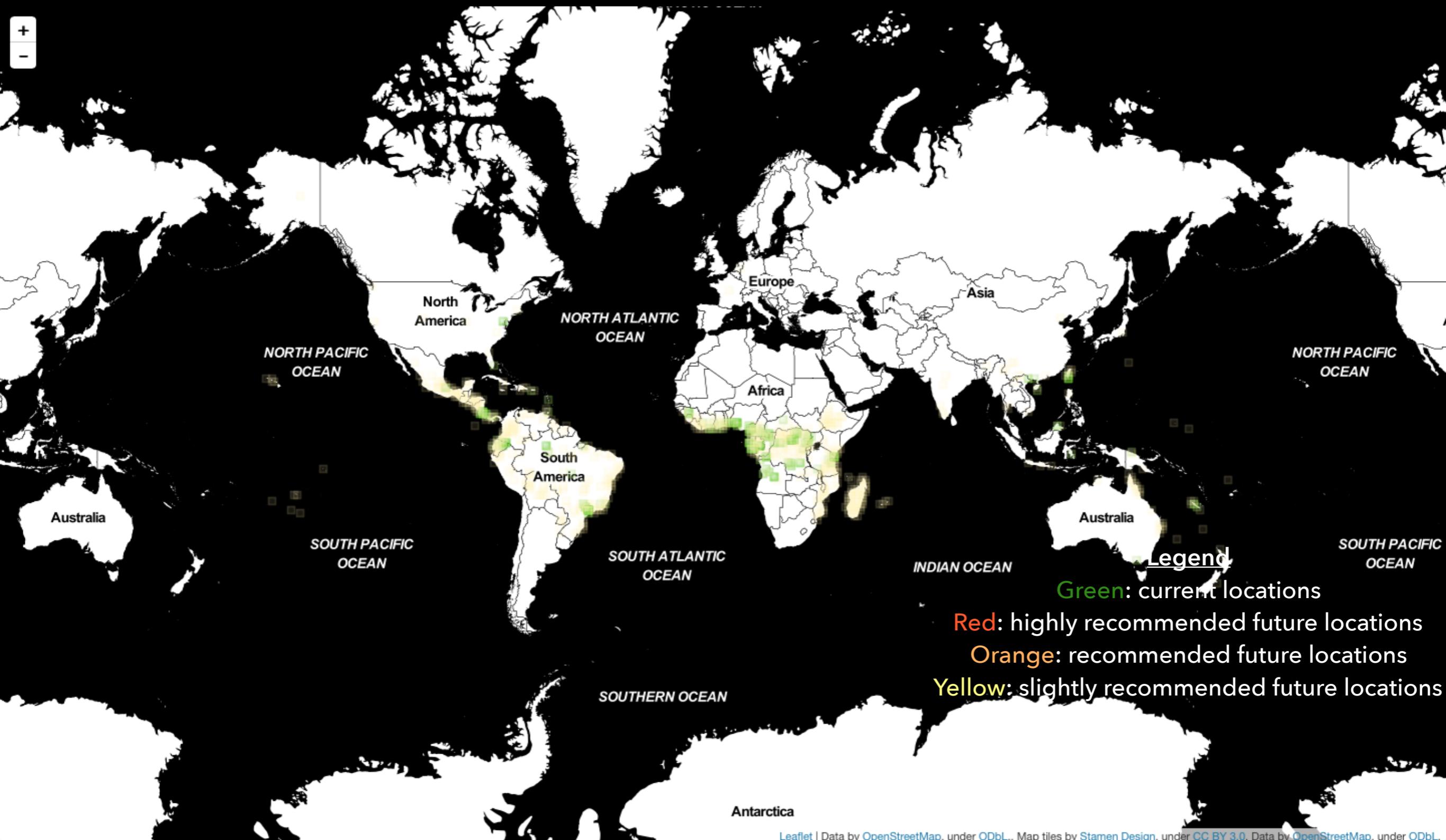
World demand is poised for a record



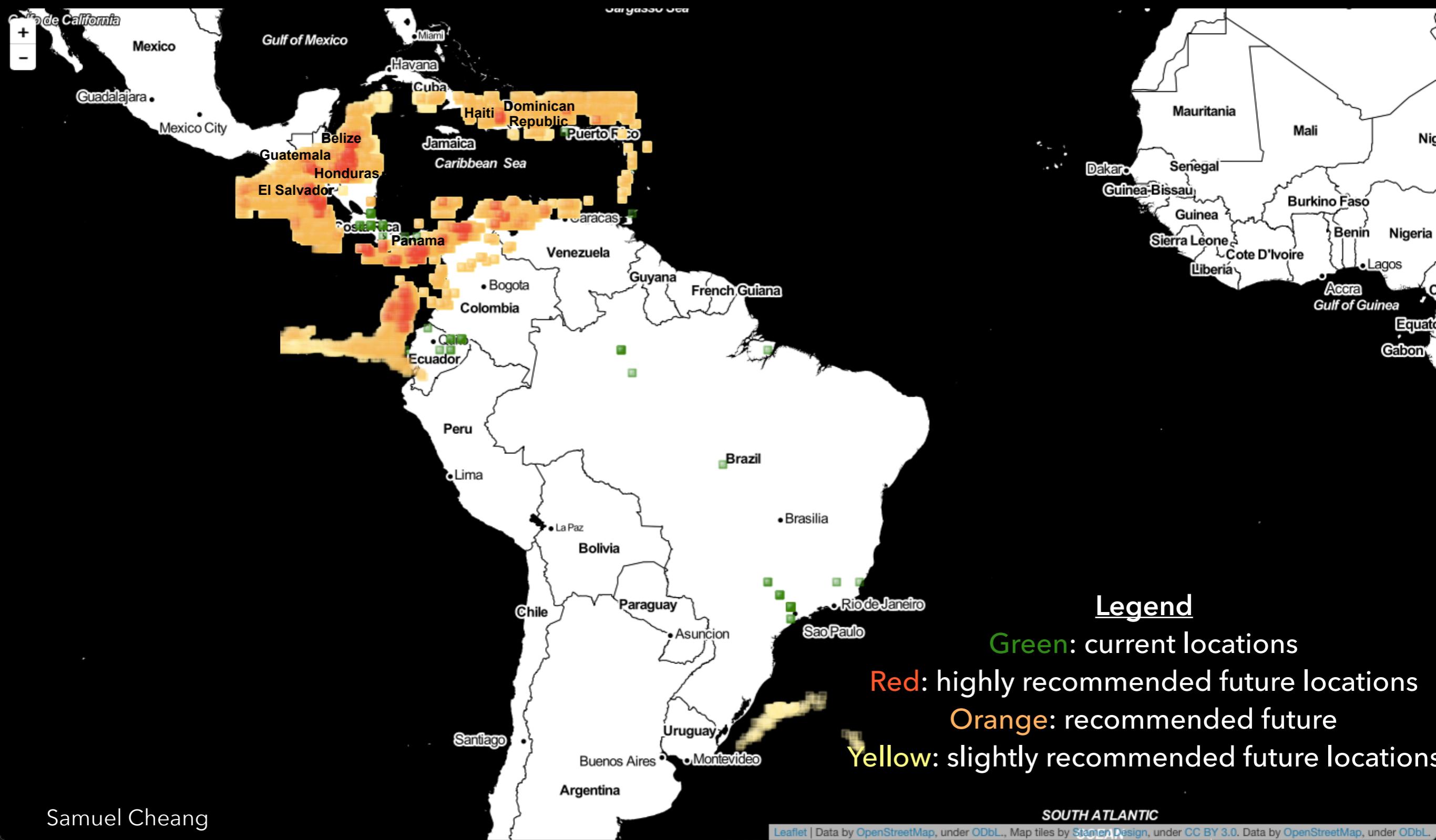
Coffea arabica L. (current)



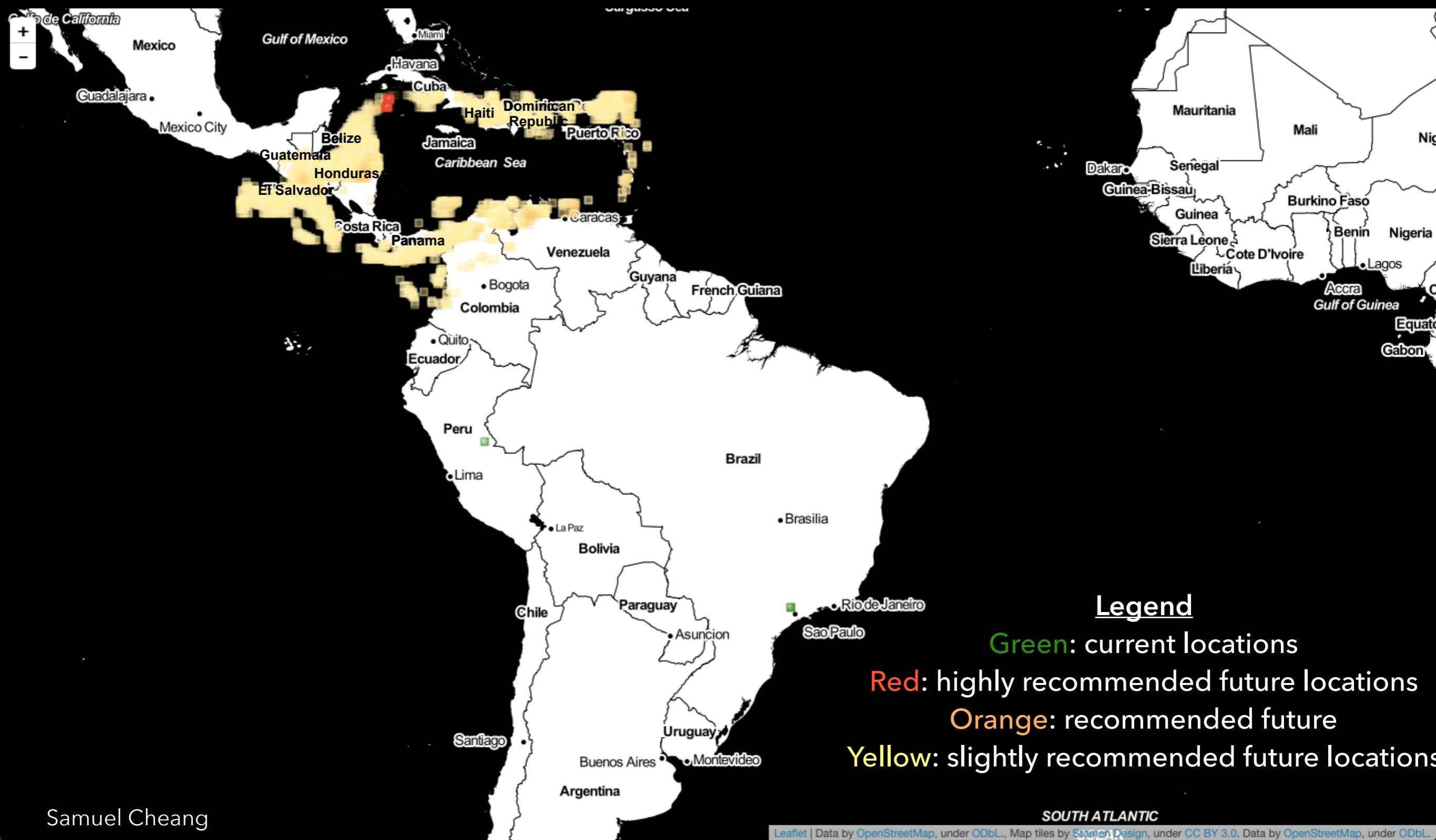
Coffea robusta L.Linden (current)



Coffea robusta L.Linden (2020-2049)



Coffea racemosa Lour. (2020-2049)



Coffea eugeniooides S.Moore (2020-2049)

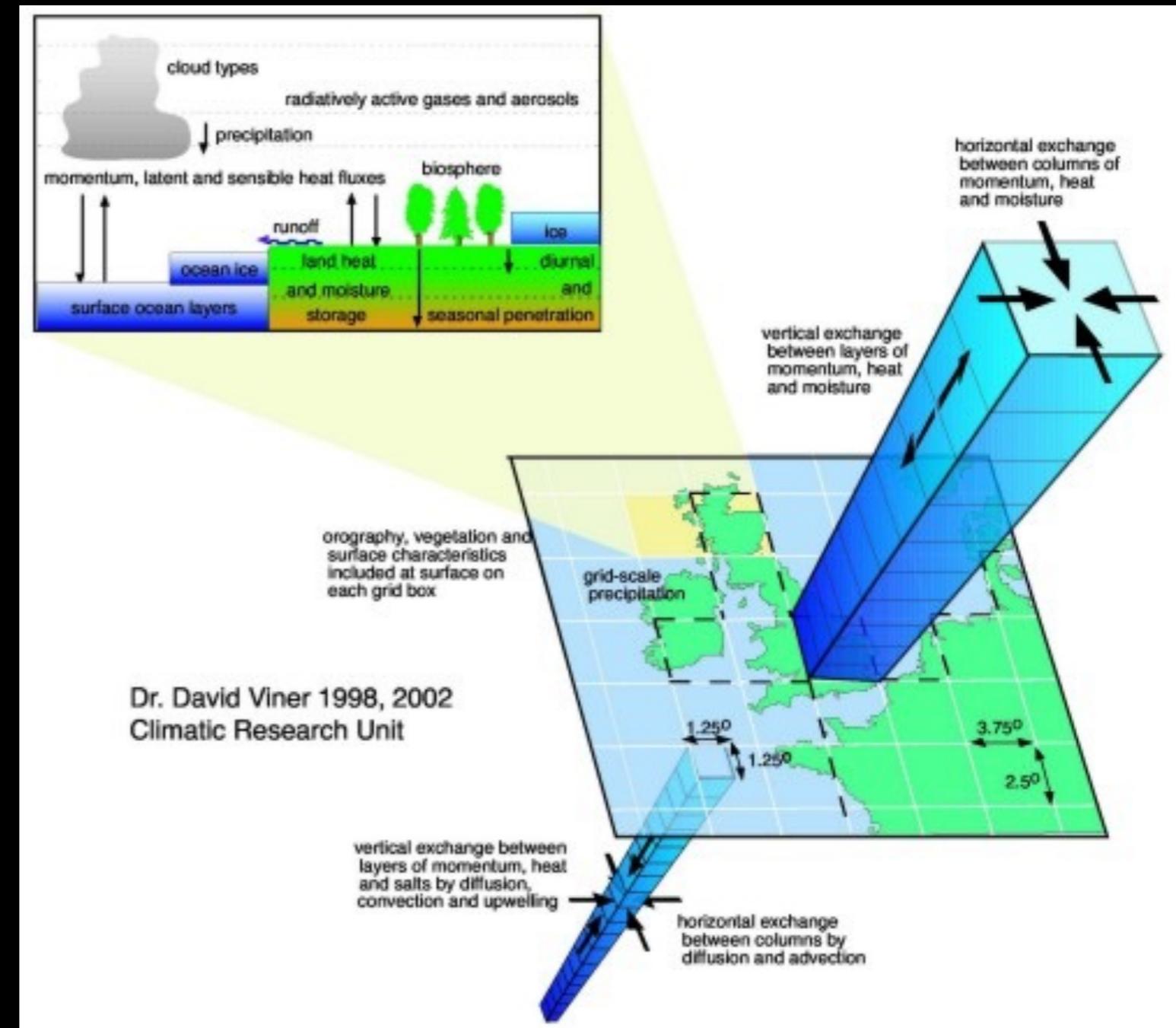


Legend

- Green: current locations
- Red: highly recommended future locations
- Orange: recommended future
- Yellow: slightly recommended future locations

General circulation model (GCM)

Mathematical model simulating the response of the global climate system to increasing greenhouse gas concentrations



What else can we do?

- Hope that the world's nations will abide by their commitments to limit global warming made during the international climate conference held in Paris last year (the Paris Agreement)
- Cross-breeding commercial coffee cultivars to become more resistant to climate change
- Consider alternative locations to grow coffee