



Herb Risk Mapping & Natural Capital Impact Assessment

2023 Masters of the Environment Capstone Project
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COMPANY OVERVIEW

Traditional Medicinals is an American botanical wellness company founded in 1974. Rooted in purpose and impact, Traditional Medicinals is a certified B Corp (since 2010) and a registered California Benefit Corporation. The company is one of America's top brands in wellness teas, holding the number three spot in bagged teas nationally.

Since the company's founding, Traditional Medicinals has prioritized the procurement of premium quality herbs with minimal environmental impacts. As part of their leadership in both botanical wellness and responsible business, Traditional Medicinals is establishing a suite of new strategies for carbon, nature, and water.



Traditional Medicinals Chamomile Tea

PROJECT PURPOSE

This Capstone supported the formulation of the three strategy areas by understanding the environmental impacts, risks, and opportunities of select herbs used in Traditional Medicinal products. The first-of-its-kind analysis for the company closely followed the Natural Capital Protocol, a decision-making framework that allows organizations to identify, measure, and value impacts and dependencies on natural capital.

ACKNOWLEDGEMENTS

The Traditional Medicinals Capstone team acknowledges and thanks our Capstone partners, Taylor Clayton and Leah Greiner, who served as a source of continual support and guidance throughout the project. We also thank our advisor, Joshua Radoff, for his mentorship.

TEAM INSIGHTS

It is critical for companies to understand their supply chain's impact on natural capital, or the elements of nature that provide important ecosystem services. Over 80% of supply chain impacts and dependencies involve natural capital. Concurrently, at least 40% of the world's natural resources are at risk for depletion.*

*S&P Global "Understanding Supply Chain Impacts" | World Bank Group "The Economic Case for Nature"

PHASE 1: HERBAL IMPACT DIARY

Our team started the project with desk research on 14 select herbs, drawing from Traditional Medicinal resources and academic research papers. The research focused on the below categories:



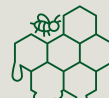
Climate & Growth
Requirements



Water
Use



Harvesting &
Processing



Nature
Impacts



Future Sourcing
Issues & Risks

Traditional Medicinals Sourcing



PHASE 2: SUPPLY CHAIN & CLIMATE RISK MAPPING

Next, we identified climate databases from agencies like the World Bank. We focused on data that included historical and forecasted changes in precipitation, temperature, and natural disasters based on climate models. We translated this data into a format that Tableau, a GIS software, could process. In collaboration with our Capstone partners, we created a Tableau risk map dashboard that visually displayed the climate risks for countries relevant to the herbs of focus.

PHASE 3: NATURAL CAPITAL IMPACT ASSESSMENT

Following the stages of the Natural Capital Protocol, we began with determining our assessment boundaries. We then defined all relevant impact indicators, or the qualitative and quantitative metrics to assess an herb's impact and dependence on natural capital.

To measure the indicators, we sent surveys to Traditional Medicinals suppliers, participated in interviews with the suppliers and used data from our desk research & climate risk mapping.

PHASE 4: INTERPRETING RESULTS & NEXT STEPS

This phase involved analysis and consolidation of the results from the previous three phases into a final report. Interpreted results included an assessment of each herb's impact on natural capital & sourcing risks or opportunities based on the climate risk mapping.

Traditional Medicinals now has the tools to continue this type of analysis with additional herbs in the future.

