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SUSTAINABLE PRACTICES OF THE BOURBON INDUSTRY IN TIMES OF CLIMATE CHANGE

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The effects of climate change are increasingly visible around the globe, and Kentucky cannot escape its impact nor avoid mitigating that impact. Kentucky has to face the effects of climate change, as demonstrated by the bourbon industry's efforts to reduce carbon emissions. Once passed, the Paris Agreement quickly became the foremost international law to control carbon emissions[i], and big distilleries recently changed their practices to be more aligned with the goals of the Paris Agreement.

[ii] However, the bourbon industry's alleged commitments to minimize carbon emissions are insufficient due to the lack of accountability system.[iii] Moving forward, there is a need for both further coercive measures, in the form of federal law, as well as more appealing incentives.



Effect of Climate Change to the KY's Beloved Bourbon

Code of Federal Regulation § 5.143 states that bourbon whiskey is whiskey produced from a “fermented mash of not less than 51% corn,” not exceeding 160° proof, and stored at no more than 125° proof in charred new oak containers.[iv] Bourbon whiskey is distinguished by its sweet and smooth taste with a hint of vanilla and caramel, which arises from bourbon's ingredients and many environmental and processing factors.[v] Minerals from the water source, charred white oak, as well as a mash bill of corn, rye, and barley affect the taste of bourbon, all of which are affected by climate changes.[vi] For example, there is a lack of white oak tree growth, and its current population does not meet the ever-increasing demand for bourbon.[vii] Some link climate change to the slowed growth of white oak.[viii] If the taste of bourbon changes in a negative way or it cannot be produced at all due to exhaustion of necessary ingredients, it could destroy the industry. Therefore, the country's largest bourbon producers are rethinking their business model, which relies heavily on fossil fuels, to achieve a more sustainable approach that does not exacerbate the already pronounced effects of climate change.[ix]

The Paris Agreement and the Executive Order

The most relevant laws regarding climate change are the Paris Agreement and Executive Order 14057. Because of bourbon's popularity across the globe, distilleries must be mindful of international laws regulating carbon emissions during all aspects of their processes. The Paris Agreement was adopted on December 12, 2015 by 196 nations at the UN Climate Change Conference and entered into force on November 4, 2016.[x] The main goal of the agreement is to pursue efforts “to limit the temperature increase to 1.5°C above pre-industrial levels.”[xi] The Paris Agreement is significant in that it is the first binding international agreement among nations to curb climate change and its effects together.[xii]



In Executive Order 14057, released on December 8, 2021 and titled “Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability,” President Biden reiterated the goal of the Paris Agreement by stating that his administration would “lead by example in order to achieve a carbon pollution-free electricity sector by 2035 and net-zero emissions economy-wide by no later than 2050.”[xiii] The federal government is the biggest energy consumer of the country,[xiv] and the executive order lists specific plans to achieve carbon neutrality by 2050.[xv] For instance, the order proposes implementing zero-emission transport and using 100 percent carbon pollution free electricity for all agencies.[xvi] This order, however, is limited to federal government operations.[xvii]

Efforts of the Bourbon Industry

In Kentucky, climate change means the state is becoming a warmer and wetter place.[xviii] Brown Forman (makers of Woodford Reserve and Jack Daniels), Beam Suntory (makers of Jim Beam), and Diageo (makers of Bulleit) are all committed to reaching net-zero carbon emissions before 2050.[xix]

As these companies distribute their products nationally and internationally, they should go further and set their goals to be aligned with the Paris Agreement^[xx] to reduce their carbon emissions toward carbon neutral by 2050.^[xxi]

Distilleries are attempting to follow the Paris Agreement by disclosing their sustainability plans and measures.^[xxii] However, the effectiveness and feasibility of the plans are questionable. Patrick J. Callery, assistant professor of Management at the Grossman School of Business at the University of Vermont, specializes in research on “corporate sustainability and strategic management within the context of climate change.”^[xxiii] In reference to the bourbon industry’s current commitments to sustainability, Callery said, “Net-zero carbon emissions by 2050 has become a widely accepted goal across industries, but without a detailed roadmap for how a company plans to get there, that’s 30 years to deflect accountability.”^[xxiv]

Although the Paris Agreement is unenforceable among its members, it still contains admirable goals in which the bourbon industry should strive to achieve. While it states that it is legally binding, it lacks a mechanism of enforcement.^[xxv] The Executive Order is limited to federal government operations^[xxvi], although their changes could have a larger ripple effect to other industries. Crucially, there is currently no federal law governing climate change.^[xxvii] Until this happens, the bourbon industry should be more proactive to make lasting changes to ensure the survival of their product.

Instead of just sharing their goals to be achieved in a distant 30 years, they can share and implement step-by-step action plans more often, such as every 12 or 24 months.^[xxviii] Following the spirit of the Executive Order, large bourbon producers can also lead by example by making their partners and supply chains accountable for sustainable practices, to the point of being willing to sever commercial relationships when they do not follow sustainable practices. However, Congress must create new laws that can control greenhouse gas emissions in a systematic and effective way rather than relying on voluntary measures of private entities. The combination of voluntary measures of bourbon producers and coercive measures of a federal law will be essential in protecting Kentucky’s beloved bourbon industry and its taste for years to come.

[i] *The Paris Agreement*, United Nations Framework Convention on Climate Change (UNFCCC), <https://unfccc.int/process-and-meetings/the-paris-agreement> [<https://perma.cc/G9NV-F5LX>] (last visited Feb. 26, 2023).

[ii] Ryan Van Velzer, *Kentucky Bourbon Makers Plan for the Future Under Climate Change*, WEKU (Dec. 8, 2021, 5:58 PM), <https://www.weku.org/2021-12-08/kentucky-bourbon-makers-plan-for-the-future-under-climate-change> [<https://perma.cc/34UG-9C64>].

[iii] *Id.*

[iv] 27 C.F.R. § 5.143(c) (2022).

[v] Lydia Martin, What Does Bourbon Taste Like? Explained (2023 Updated), LiquorLaboratory (July 5, 2022, 3:30 AM), <https://liquorlaboratory.com/what-does-bourbon-taste-like> [<https://perma.cc/C8E7-JJ58>].

[vi] Van Velzer, *supra* note ii.

[vii] *Id.*

[viii] *The Challenge*, White Oak Initiative, <https://www.whiteoakinitiative.org/the-challenge> [<https://perma.cc/JF8A-9NFG>] (last visited Feb. 26, 2023).

[ix] Van Velzer, *supra* note ii.

[x] *The Paris Agreement*, *supra* note i.

[xi] *Id.*

[xii] *Id.*

[xiii] Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, Exec. Order No. 14,057, 86 Fed. Reg. 70,935 (Dec. 8, 2021).

[xiv] *See Federal Government-Wide Performance Data*, Off. of the Fed. Chief Sustainability Officer, https://www.sustainability.gov/government_data.html#:~:text=The%20Federal%20government%20is%20the,300%2C000%20buildings%20and%20600%2C000%20vehicles.
[<https://perma.cc/T7TL-WPPA>] (last visited Mar. 26, 2023). *See also id.*

[xv] Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, 86 Fed. Reg. at 70,935.

[xvi] Sonja Thielges et al., *Taking Stock of Joe Biden's Climate Agenda: Governance Approach and Areas for Transatlantic Climate Cooperation*, 16 Carbon & Climate L. Rev. 73, 75 (2022).

[xvii] Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, 86 Fed. Reg. at 70,935.

[xviii] Van Velzer, *supra* note ii.

[xix] *Id.*

[xx] *Id.*

[xxi] These companies also share their sustainability disclosure. For example, Brown Forman's sustainability disclosure can be found here (https://www.brown-forman.com/sites/default/files/team_resources/2021-10/2021_BFC_SASB_Disclosure_Topics_06oct21_0.pdf). *Sustainability Accounting Standards Board (SASB) Disclosure Topics Industry Standards for Alcoholic Beverages*, Brown-Forman, https://www.brown-forman.com/sites/default/files/team_resources/2021-10/2021_BFC_SASB_Disclosure_Topics_06oct21_0.pdf [<https://perma.cc/S5ZZ-PANW>] (last visited Feb. 26, 2023).

[xxii] Van Velzer, *supra* note ii.

[xxiii] *Patrick J. Callery*, Grossman Sch. of Bus., <https://www.uvm.edu/business/profiles/patrick-j-callery> [<https://perma.cc/ML27-CJ3G>] (last visited Feb. 26, 2023).

[xxiv] Van Velzer, *supra* note ii.

[xxv] Daniel Bodansky, *The legal character of the Paris Agreement*, 25 *Rev. Eur. Compar. & Int'l Env't. L.* 142, 143 (2016).

[xxvi] The White House Council on Env'tl. Quality, *Implementing Instructions for Executive Order 14057 Catalyzing Clean Energy Industries and Jobs through Federal Sustainability* (August 2022), https://www.sustainability.gov/pdfs/EO_14057_Implementing_Instructions.pdf (https://www.sustainability.gov/pdfs/EO_14057_Implementing_Instructions.pdf) [<https://perma.cc/WH9D-ZTUQ>].

[xxvii] *Clean Air Act*, Sabin Ctr. for Climate Change L., <https://climate.law.columbia.edu/content/clean-air-act> [<https://perma.cc/MH2N-9LJJ>] (last visited Feb. 26, 2023).

[xxviii] Van Velzer, *supra* note ii.

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