**Executive Summary:**

Climate change presents a growing threat to global coffee production, jeopardizing both the yield and quality of coffee beans. As global temperatures rise and weather patterns become more erratic, traditional coffee-growing regions are being pushed beyond their ideal growing conditions. Coffee plants, particularly Arabica, require specific environmental factors to thrive—temperatures between 18°C to 22°C (64°F to 72°F). However, rising temperatures are shifting these conditions to higher altitudes and latitudes, reducing the suitability of established coffee-growing areas.

In addition to temperature changes, excessive heat accelerates plant metabolism, leading to premature maturation of coffee beans and negatively impacting their flavor development. Warmer, wetter conditions also promote the growth of pests and diseases, such as coffee leaf rust, which thrives in these environments and causes significant defoliation and yield loss. This increase in pest and disease pressure escalates production costs, requiring greater investment in management and prevention.

EcoLatte aims to address these challenges by developing coffee beans that are genetically modified to withstand the damaging effects of climate change. Our solution focuses on enhancing the biological composition of coffee plants, making them more resilient to heat, pests, and diseases. Through customer discovery, we’ve found strong support for this approach, with 90% of respondents indicating they would value genetically modified coffee beans if they were designed to thrive under climate change conditions. EcoLatte’s coffee promises improved quality, cost-efficiency, and pest resistance, benefiting both producers and consumers.

**Our Team:** EcoLatte is led by a diverse and experienced team:

* **Bianca**, CEO, leads strategy and operations.
* **Venus**, CTO, drives innovation and biotechnology development.
* **Vanessa**, CFO, manages financial strategy and growth.

Our team is composed of computer scientists with specialized expertise in bioinformatics and biotechnology, giving us the technical foundation and experience to develop climate-resilient coffee beans and bring this vision to life.

**References:**

[https://greenly.earth/en-us/blog/ecology-news/](https://greenly.earth/en-us/blog/ecology-news/is-coffee-threatened-by-climate-change)

**Pre-read document:**

**Executive Summary:**

**Problem:** Climate change is severely impacting global coffee production, threatening both the yield and quality of coffee beans. As global temperatures rise and weather patterns become more unpredictable, traditional coffee-growing regions are facing altered growing conditions. Coffee plants, especially Arabica, require precise environmental factors—temperatures between 18°C to 22°C (64°F to 72°F)—to thrive. However, as temperatures rise and rainfall patterns shift, coffee-growing regions are being pushed outside these optimal ranges. This results in reduced bean quality, smaller yields, and increased vulnerability to pests and diseases.

For example, excessive heat accelerates plant growth and forces beans to mature too quickly, which negatively affects flavor development. Additionally, warmer and wetter conditions create ideal environments for pests, like the coffee leaf rust fungus, which leads to defoliation, reduced yield, and higher production costs due to increased pest management needs. These disruptions are placing a significant strain on coffee producers and the overall coffee supply chain.

**Customer Discovery Plan:** EcoLatte has conducted thorough customer discovery, surveying coffee consumers to understand their needs and the potential demand for climate-resilient coffee. Our research reveals strong support for solutions that mitigate the risks posed by climate change. In fact, 90% of survey respondents expressed interest in genetically modified coffee beans that could withstand climate-related stresses. We kept in mind that producers will be particularly concerned with reducing the costs associated with pest and disease management, while consumers are increasingly mindful of sustainability and quality in the products they buy.

Our customer discovery plan continues with direct outreach to farmers, distributors, and retailers to validate our product-market fit. We plan to conduct pilot testing with small farms in affected regions, gather feedback, and refine our product offering based on real-world use.

**Our Product:** EcoLatte's solution is a line of genetically modified coffee beans designed to thrive in the changing climate. Our beans are bioengineered to withstand higher temperatures, resist pests, and maintain high-quality flavor profiles despite environmental stressors. By modifying the genetic composition of coffee plants, we aim to create more resilient crops that can adapt to the altered conditions caused by climate change.

This innovation not only helps farmers by reducing the need for expensive pest management but also ensures consumers continue to enjoy high-quality, sustainable coffee at a more affordable price. EcoLatte’s beans are cost-efficient, pest-free, and of superior quality, representing a win-win for both producers and consumers.

**Team:** Our team is composed of experts in bioinformatics, biotechnology, and business, providing the technical expertise and strategic vision necessary to bring this innovative solution to life. The RegenCafe team includes:

* **Bianca Desai**, CEO, responsible for overall business strategy, leadership, and operations.
* **Venus Kajangu**, CTO, leading our Research and Development efforts in biotechnology and the development of climate-resilient coffee plants.
* **Vanessa Dejesus**, CFO, overseeing financial planning, investor relations, and fundraising to ensure sustainable growth.

With a shared passion for technology and sustainability, our team brings a unique blend of skills to the table.

**Timelines:**

* **Company Structure:**
  + Establish formal business structure, recruit additional talent in biotech, and initiate partnerships with academic institutions for research support.
* **Financial Milestones:**
  + Complete initial seed funding round to secure necessary capital for research and development.
* **Product Development:**
  + Finalize the first generation of genetically modified coffee plants, ready for field testing.
  + Conduct pilot tests with selected coffee farms to validate plant resilience and assess flavor profiles.
  + Gather feedback from pilot farms and refine genetic modifications based on results.
  + Launch commercial production and distribute the first batch of EcoLatte coffee beans.

**Budget (The Ask):** To bring EcoLatte’s vision to life, we are seeking **$2 million in funding**. This capital will be allocated across key areas, including:

* **Research & Development** (50%): For genetic modification and plant development, including lab equipment, biotechnology tools, and personnel.
* **Product Testing & Pilot Programs** (20%): To fund field trials, gather data from farmers, and refine the product.
* **Marketing & Outreach** (15%): For customer acquisition, brand development, and market penetration.
* **Operational Expenses** (15%): Including staffing, administrative costs, and scaling our core business operations.

These funds will ensure that EcoLatte can successfully complete product development, build a solid customer base, and establish a sustainable business model that contributes to the future of climate-resilient coffee production.

* Present your problem ✅
* Highlight your team ✅
* Show your product (without just using screenshots) ✅
* Lean Canvas model
* Timelines (Company structure, Financial, Product development) ✅
* Budget ($$ to get it done - called the ask) ✅
* Customer discovery plan ✅