Women in sustainable leadership: A case study on the perspectives, opportunities, and challenges of biologist and conservationist Estrela Matilde

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Women in sustainable leadership: A case study on the perspectives, opportunities, and challenges of biologist and conservationist Estrela Matilde

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Research Question(s):

Primary- How have deep-rooted gender roles shaped female biologist and conservationist Estrela Matilde’s leadership at the forefront of environmental conservation on the Island of Príncipe on the West Coast of Central Africa?

Secondary- What is the role of women’s leadership in the sustainability sector; what challenges and opportunities do women face, and how are they dealing with these realities individually and collectively?

Abstract:

Despite the relatively small population of 8,000 occupants and the minimal international recognition of the Island of Príncipe, located off of the Gulf of Guinea on the Western Coast of Central Africa, the region has increasingly become a leading example of sustainable practices to be taken on a global scale in the near future to combat our current climate crisis. This case study explores the sustainable practices that Príncipe has learned to embrace under the leadership of Portuguese conservation biologist and project manager for the NGO Fundação Príncipe, Estrela Matilde. Estrela integrates social, cultural, and environmental conservation to align with the United Nations’ definition of sustainability, “meeting the needs of the present while simultaneously taking into consideration the state of future generations” (UN, n.d.). This study first explores secondary research on the Tropical Island, often referred to as a ‘desolate paradise’ with a highly vibrant ecosystem and a uniquely large number of endemic plant and animal species including the Príncipe Starling and Speirop birds as well as five of the seven endangered types of sea turtles; The Green Turtle, Olive Ridley, Hawksbill, Leatherback and the Loggerhead (Africa’s Eden, n.d.). It then incorporates new, primary data through a focused interview with Estela to explore an aspect of her identity that has shaped her reality which literature has largely lacked to consider; the influence and, in turn, the challenges that she has experienced as a female leader in a society built on deep-rooted patriarchal narratives. This study aims to reach beyond merely dissecting Estrela’s sustainable agenda on the Island, but to reveal her experience and
open a space for other females to relate on similar issues of being seen, being heard, and being valued in society today.

**Keywords:** Gender roles, participatory leadership, women, female, leadership, sustainability, conservation

**Definitions:**
Throughout the following sections of this paper, the complex term of gender roles that will continue to be introduced will be defined primarily as “the role or behavior considered to be appropriate to a particular gender as determined by prevailing cultural norms” (Oxford Dictionary, n.d.). Participatory leadership, method, and/or approach will all similarly be defined by entrepreneur Kaya Ismail as “a leadership style whereby leaders listen to their employees and involve them in the decision-making process. It requires an inclusive mindset, good communication skills and the ability — and inclination — to share power” (Ismail, 2021). The term women will be referring to individuals who identify as a female. Lastly, sustainability and conservation will be interchangeably used to encompass ecosystem protection and preservation methods while taking into consideration human life and future generations. In this research I narrow the broad term of sustainability to be defined as it was in the Brundtland report by “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations, n.d.). This term is demonstrated through Principe’s production methods on the Island through reusing existing materials that would otherwise further contribute to waste, promoting purchasing products on a local level as opposed to a global level to decrease mass transportation pollution, and fostering sustainable tourism, defined by Estrela “as taking into consideration the needs of the local people and ecosystems”.

**I. Background and Rationale:**
The Environmental movement stems back to the time of Industrialization when degradation to the natural world became apparent during mass production and consumption practices during Industrialization. This period of the Anthropocene in the late 19th century from capitalist practices began prompting large-scale detrimental effects that have continued to take place today (Elliott, 2019). In turn, it became increasingly apparent that the state was not necessarily thinking of citizens’ best interest and health, but rather, of the opportunities for generating economic gain. In the 1970’s as the movement gained recognition after first introduced by John Muir commonly referred to as “Father of the National Parks,” people began realizing that unlike the Civil Rights Movement or Women's Suffrage Movement, nobody had immunity from environmental injustices, not whites, blacks, wealthy, etc, but often poor and marginalized communities felt the brunt of polluted air and water as they didn't have the economic means to leave where they lived. Warren county in North Carolina and Love Canal in New York where hazardous and toxic chemicals were leaked into the roadways, soil, and groundwater sources were the first incidents that prompted the term environmental justice. As marginalized communities were experiencing disproportionate effects of environmental pollution, in reality, those in the Global North and Anglo Saxon world with higher social capital, neoliberal consumerism values, and wide-spread corporations were contributing the most. Yet, these developed regions of the world and those with more resources benefited from better environmental quality while contestants such as decolonizing countries, Indigenous communities, and those with less economic circulation were the smallest contributors and most impacted. As
the movement moved from urban to rural (in 2000s), fast to slow with natural disasters to invisible toxin and gas leaks, and local to global scale, female activists began taking the lead at the forefront and promoting widespread change.

This case study dives deeper into both the how and the why space needs to be created for females in particular to stand at the forefront of the environmental justice movement today, in doing so, diminish patriarchal narratives. It examines a history based on the physical confinement of females’ perspectives to the home and the emotional belittlement of females’ spirit due to a lack of societal support—support to have, reach, and obtain opportunities. The study examines how the role of one influential female, Estrela Matilde, has rewritten conservation efforts by shifting away from the normative Western perspective that often creates a large imposition of savior mentality and instead, incorporates epistemologies of the South and Indigenous knowledge that are commonly disregarded with respect to humans coexisting with the natural world. Estrela emphasizes lived experiences by taking into consideration the communities that she is working with in Príncipe, Central Africa. She doesn’t approach Príncipes' economy through a degrowth perspective as the formerly colonized nation suffers from an ongoing fragile economy, but emphasizes development on a microscale by fostering renewable energy at the community level. Through utilizing the unique geography that the region offers, Estrela works to promote economic profit through sustainable entrepreneurism to create a circular economy which will be further studied in section 2.6. This study highlights the strategies that she has successfully implemented in Principe’s evolution into a transition town, or “a community-led response to the pressures of climate change, fossil fuel depletion and increasingly, economic contraction” (GreenChoices, 2023). Conclusions from this case study draw upon past papers regarding sustainable efforts in Príncipe throughout section II while simultaneously emphasizing attention to and need for women filling sustainable leadership positions, further discussed in section IV.

Figure 1- Recycled parts for jewelry production, Praia das Burras, Príncipe Island, 2018
II. Literature Review

2.1 How has the exclusion of women in entrepreneurship influenced their role in the industry today

Examining which social demographics have been at the forefront of entrepreneurship throughout history helps to better understand if and how women leaders have been able to amplify their voices and act as influential figures in the rapidly growing sustainability movement around the world. This focus relates to our global need for and interest in shifting to sustainable practices that incorporate perspectives from the entirety of our population as a response to the encroaching climate crisis. The highly complex relationship between socio-cultural dynamics with an emphasis on gender norms plays a large role in relation to the mitigation of climate change in the 21st century. A better understanding of the progression of sustainable movements has been fostered since the end of the 20th century after the publication of the influential Brundtland Report, commonly referred to as “Our Common Future”, written by the Brundtland Commission, a sub-organization of the United Nations (UN). The Sustainable Development Goals (SDGs) created by the UN which aim to be reached in the rapidly approaching year of 2030 focus on solving a variety of social problems such as promoting sustainable businesses in entrepreneurship with responsible consumption and production (Goal 12), valuing life below water (Goal 14), improving life above land (Goal 15), and combating the current state of ‘code red warning’ that our world is currently in (Goal 13) (Bergquist, 2017).

The fifth SDG goal that strives to achieve gender equality is arguably the most essential as the United Nations Women, a sector of the UN devoted to studying and promoting gender equality, found that fostering women's empowerment would play an integral part in achieving each of the other goals. This displays how women can positively contribute to societal improvement such as reducing poverty, ending food insecurity, or promoting health quality if given the platform to do so, which they currently lack. Furthermore, The Convention on Biological Diversity, a treaty that came into action by the UN in 1993 to further foster education and information on sustainable movements, recently included a gender component in December of 2022 to examine how gender roles have shaped our socio-cultural dynamics and have remained socially accepted (Women’s Environment & Development Organization, n.d.). The SDG agenda, as a whole, is essential as it considers interrelated elements of sustainability, such as managing terrestrial and forest ecosystems, protecting marine ecosystems, and improving the quality of life for humans.

This broad, global emphasis on the relationship between sustainability and gender is also—potentially—reaching toward women’s participation as business entrepreneurs. However, gender and entrepreneurship are not often studied together. One of the most successful global companies that serves as an example for reducing its environmental footprint is the American outdoor gear corporation called Patagonia, a longstanding and often-cited example in sustainable business circles. My interest for the role that gender plays in fostering the success of sustainable businesses was piqued after reading the autobiography of Patagonia’s founder, Yvon Chouinard, Let My People Go Surfing, which focuses on Chouinard’s life and business. Patagonia’s business model of ‘less is more’ focuses on durable, multi-use garments. This approach works to both restrict and diminish the widespread over-production and consumption habits we often see from both producers and buyers. Yet, with Patagonia’s dramatic success, it is important to examine if Patagonia would be where it is today, as one of the foremost models for sustainable businesses worldwide, if a woman had founded and led the company for decades? Did gender shape Yvon Chouinard’s success in receiving funding and support from outside forces? Where did
Patagonia’s efforts to create an inclusive, balanced work environment with a culture of frequent surf breaks and on-site childcare originate? While men have historically and unequivocally had gender privilege in relation to opportunities, pay, and respect, sustainable companies’ abilities to generate highly positive impacts on the world should be recognized and praised regardless of the gender of the founder. This paper aims to dig deeper into the culture of sustainable business and the role of gender by working to first understand the degree that gender can be attributed to the success of sustainable leaders and then by understanding the perspectives, opportunities, and limitations that one woman, Estrela Matilde, has faced. By looking both broadly at gender and business, as well as using a targeted case study, I aim to first study the influential conservation she has prompted on Principe with an emphasis on how her gender has shaped her ability to lead successfully.

2.2 Women in the workforce—then to now

Dissecting normative gender roles that can often remain unrecognized and lay far below the surface of both entrepreneurship and sustainability in our world is essential. Throughout history, societies have shared the relatively universal belief that women are best fit in the confines of the home performing conventional roles such as child-raising, cooking, and cleaning while men have held the opportunity of dominating the workforce and providing an economic income for the family (Dicke et. al, 2019). The female ‘role’ in society began to expand by the mid to end of the 19th century as labor forces advocated for the female voice to be recognized throughout the United States (Toossi & Morisi, 2017). Women's Suffrage Movements began as a result of gender exclusion following industrialization through the publications of countless journalists such as André Léo in France, Louise Otto-Peters throughout Germany, and Judith Sargent Murray in the United States (Briatte, 2020). As females were subjected to a late start in the professional world, their representation in the job force and, to a large extent, business leadership remains staggeringly low and largely undervalued today. Beyond the realm of business leadership, many global political and religious leaders we think of are also men such as Mahatma Gandhi, Martin Luther King Jr, Nelson Mandela, or Winston Churchill. Despite positively changing the world immensely, these are all names of male figures.

2.3 Stereotypical leadership roles—past and present

Abilities between men and women have been largely divided since the time of hunting and gathering society left men in the power role while confining women to the “safety” of the home to provide traditional care-giving tasks. Yet today, despite drastic societal changes as our world has developed and no longer strictly operates on a survival basis, deep-rooted inequalities between the genders continue to show. Although women make up half of the global population, female representation remains staggeringly low and undervalued throughout the world in all sectors of society, even within the most ‘progressive’ of countries throughout Europe or the United States for example. Gender equality was added to the United Nations sustainable development goals as a means to advance development such as health, education, and economic circulation that gender equality has been proven to positively influence (IMF, 2022). Despite prevalent gender inequalities in Europe, men and women share responsibilities and tasks when compared to West and Central Africa. The International Fund for Agricultural Development, a specialized agency of the United Nations studying poverty in rural countries studied the unequal division of labor within these two regions of Africa where women play a fundamental role and responsibility in every sector of society; from domestic duties, agricultural production, familial
roles, and income generation (IFAD, 2015). Yet, despite this disparity in responsibilities, women largely lack fruitful economic gain and endure discriminatory tactics such as having little control or power in land management.

It can often be argued that cultural relativism, a term defined by Carnegie Culture for Ethics in International Affairs as “the view that ethical and social standards reflect the cultural context from which they are derived” tolerates the unequal treatment of females due to different cultural norms (CCEIA, 2023). An example of this can be seen through the exceptionally high rates of violent practices against women such as female genital mutilation (FGM) throughout countries predominantly in Sub-Saharan Africa and Arab states (UNFP, 2022). Beyond violence, the American Association of University Womens, an NGO aimed at “advancing gender equity for women and girls through research, education, and advocacy” displays the disparities within political participation in the United States as female representation on the Supreme Court makes up a minor 33% while the Senate and House of Representatives is as low as 23%-26% (AAUW, n.d.). This is also evident within the annual compilation of the largest corporations within the United States showing that only 7.2% of Chief Executive Officers (CEOs) of fortune 500 companies are women (AAUW, n.d.).

2.4 Background on Príncipe

Developing a deeper understanding of how capitalist economies can be utilized to promote sustainability is essential due to the influential role this economic system has on our global world. As capitalism has the tendency to largely emphasize mass production and consumption practices this has consequently contributed to the state of our current climate crisis (UN, 2023). Yet, generating change within capitalist systems holds great power in determining if our global world will begin to reduce our carbon footprint or continue familiar detrimental and unsustainable practices. This influence stems from the incentive that capitalist systems generate as innovative thinkers and leaders have high financial incentive by promoting alternative and sustainable ways of living. Those straying away from ‘business as usual’ practices such as using plastic wrapping or cheap labor have the potential to generate immense important social, economic, and environmental impact under capitalist systems, as seen in the case of Príncipe in section 2.6.

Following a long history of deep-rooted colonization, Príncipe and the neighboring island of São Tomé, often referred to as STP, were left in a state of crisis after mass depletion of natural resources such as cocoa and coffee extraction from widespread plantations using labor from enslaved people. With illiteracy rates in STP reaching as high as 80% after gaining independence from the Portuguese in 1975, despite financial aid from EU, UNESCO and UNDP funded programs, these microstates continue to suffer from flawed education systems, economic circulation, and environmental degradation as a result of past colonial influence (Ayres et al, 2022). Consequently, the Gulf of Guinea has a drastically low Human Development Index (HDI) score of 0.47 on a scale of 0 qualifying as low and 1 qualifying as high; the HDI shows significant inequities in STP in all three of the HDI categories: life expectancy, education, and income levels. While the HDI ranking is complex, when studying developing countries today it is essential to note that there is a familiar trend between microstates, or “small territories recognized as sovereign states by other states and international organizations” as having a drastically lower HDI score than that of colonizing nations throughout history, due to a lack of familiarity with independent rule (World Atlas, 2019).
2.5 Estrela’s leadership agenda

Despite Príncipes’ late start toward reaching development, as executive director of NGO Fundação Príncipe, Estrela has generated large-scale environmental and economic reforms after witnessing the detrimental human impact seen on the Islands natural ecosystems specifically within its unique turtle population. Estrela has a long trajectory of leadership in Príncipe. She first traveled to the region to take a short-term six-month job position as Project Manager for Príncipe Trust. To date, she has remained in Africa for ten years, tirelessly focusing her attention on both improving the ecosystem of Príncipes natural world as well as the livelihood opportunities for Príncipes’ residents/local communities. Estrela’s seemingly ‘simplest’ approach toward conservation and leadership reaches beyond the generic European mentality that often limits new and innovative thinking from being explored (Sustainability Leaders United, 2015).

At the core of Estrela’s mission is one overarching material threatening not only the biodiversity of Príncipe but all natural environments on a global scale; plastic. With pollution levels reaching up to 14 million tons of plastic streaming into our ocean each year, the survival of marine life is highly compromised (IUCN, 2021). This extreme contamination of oceans is a difficult reality to solve as it stems from items that have become highly ingrained in our everyday lifestyles, and which also contribute to our global economic systems. Practices that generate economic growth for large-scale companies are slow and difficult to stray away from as capitalist economies revolve around the circulation of money. This reality is evident within some of the largest global companies. For example, companies such as Coca Cola and Pepsi have control over the beverage market and practices related to their products are some of the most detrimental contributors to plastic pollution that winds up in oceans—from plastic bottles to straws to wrapping and single-use plastic bags (WMW, 2021). Estrela’s mission became to combat realities like this, which affected her adopted island of Príncipe.

2.6 Sustainable efforts being taken in Príncipe by Fundação Príncipe—advantages and disadvantages of the remote geography

Fundação Príncipe is a local NGO on the island of São Tomé and Príncipe working to mitigate the complex relationship between socio-cultural, economic, and environmental challenges of the region. With Estrela at the forefront as the Executive Director of the organization, the ongoing projects of the foundation vary widely, from environmental conservation to local engagement and empowerment. Conservation of Príncipe’s biosphere, local species, and vegetation is one of the most pressing issues of Fundação Príncipe’s efforts. As
Principe has a lower-to-middle class economy the Island is vulnerable to the economic trap of deforestation. Thus, the organization’s preservation of natural species acts as an alternative method to generate economic circulation and strengthen their highly fragile economy. The World Development Indicators compares nations by collecting the most current data based on 6 indicators: World View, People, Environment, Economy, States and Markets, and Global Linkages (EUI, 2023). Based on their findings, the gross domestic product (GDP) per capita of STP is $2,360.54, defined as the total sum of goods and services divided by the total population. Despite an increase in STP’s GDP from USD 1.5k in 2015 to USD 2.5k in 2021, it continues to fall under the indication of a low GDP as less than $27,271.81 US (EERA, n.d.). With 15.6% of the population living under severe poverty STP has a GINI index of 40.7, revealing prominent relative income inequality between citizens (UNDP, 2023). Projections from the World Bank highlight tourism and extensive education as promising components for the economic future on the Island to raise its GDP per capita (World Bank, 2023). Yet promoting education, a component that Principe has lacked throughout history due to past colonial influence and present-day poverty, is highly essential in order to preserve sustainability within these two industries that could benefit STP’s economy.

Through education, Fundação Príncipe works to improve the effects of current practices on the natural world and explore alternative livelihood practices to provide for local residents. The foundation’s initiative Omali Vida Nôn (phase 1 and 2) is one example of the various efforts to preserve STP marine life through implementing a participatory approach and working directly with local fishermen and fisheries who depend on this practice. Within Omali Vida Nôn, 6 local fishing communities were incorporated into the marine conservation effort and asked first-hand: “How should the industry be changed to improve your daily lives, how can we conserve the natural world that you depend on for a living, and what do you need from us to make this happen as we have the resources to do so?” Omali Vida Nôn highlights the importance of opening up spaces for not only influential NGOs and policymakers to take part in the conversation, but relying on the expertise of local communities which often are overlooked in the integrated conservation and development processes.

Cobio-Net is another project focussed on utilizing the unique coasts of Sub-Saharan Africa as a resource for improving food insecurity. The functioning of the dense forests and coastal shores of Principe is largely understudied. Thus, the project hosts management, training, and restoration courses for residents to take part in to benefit from the natural land in an efficient manner (Fundação Príncipe, n.d.). Furthermore, the Flora of Principe Projeto has a similar mission but focuses specifically on enhancing botanical exploration within the highly unique and complex vegetation on the Island to conserve the endemic plant species. As the forests of Principe have been considered among “the 200 most important biodiversity areas in the world” by UNESCO in past years, Fundação Principe generates surveys and botanical training to better understand the flora. Yet another project of the foundation, O Protetuga Projeto which began in 2014, has aimed to protect the Island’s diverse turtle species from the debilitating effects of plastic pollution on marine life. This project has acted as a catalyst for community engagement in Fundação Principe’s work. In 2016 the project incorporated a ‘community fund’ which began collecting the tourist income that the coastal beaches of STP were generating, using these funds to reinvest in the local communities that were implementing the most efficient and sustainable practices.

While many of Fundação Principe's projects focus on the environment, the foundation has also begun unique programs to promote women's leadership in business. After expressing the
desire to run a sustainable biosphere business as a replacement practices requiring land exploitation, 10 local women from Porto Real, a village located in central Príncipe, approached Fundação Príncipe asking for support and collaboration. Soon after, Príncipes Recycling Cooperative, *Cooperativa de Valorização dos Resíduos* (CVR) was born with the unique agenda of incorporating primarily the women of the Island into the economy through the production of jewelry and organic compost. Through collecting glass bottles which would have otherwise been transferred to a landfill, long-lasting jewelry was created for locals and tourists alike. Similarly, ‘waste material’ that was once assumed to have little use in the future was transformed into organic compost to be re-used for sustainable agriculture and farming practices (Fundação Principe, n.d.). Through these simple, yet highly useful resources, STP was able to create a circular economy by continuing to reuse and regenerate materials rather than contributing to single-use practices. When working with the promising women on the Island, Estrela has the children of the region in mind as they believe that by supporting mothers they are supporting future generations' health, education, and living circumstances. Not only has this project brought in an immense amount of money to begin mending the flawed economic system of Principe, but recognition reached Ghana through a training exchange program, awards from the Yves Rocher Foundation were appointed, and the pieces were displayed in Lisbon’s Fashion Week in 2020. Throughout the countless projects, she not only prioritizes community engagement of the local peoples but accentuates a cycle of empowerment for mothers to then influence daughters over all else.

*Figure 3* - Reuse of rubber for jewelry production, Praia das Burras, Príncipe Island, 2018
*Figure 4* - Foundation Store for selling recycled handicrafts and jewelry, Praia das Burras, Príncipe Island, 2019
III. Methodology:

3.1 Research and rationale of case study choice and readings

This study incorporates three aspects of my academic trajectory; my personal interest in female leadership; my academic focus on political science; and my current environmental conservation program in Portugal. My interest in and attention to the ways in which gender shapes women’s perspectives and opportunities incorporates my curiosity in the complex interplay between women in a largely misogynistic culture, an interest which has increasingly developed with both age and education. This interest aligns with my academic focus in the United States, which explores peoples’ thoughts, perceptions, and behaviors (Psychology) as well as social and political structures (Political Science). In turn, this case study incorporates an interdisciplinary and distinctively social approach to the topic of women in leadership. Finally, I focus on leadership within sustainable transitions, emphasizing the human interaction with our natural and social world, which I am learning through the Environmental Sustainability and Advocacy program I am currently participating in, based in Lisbon, Portugal. A mixed-methods approach was used to collect information in order to allow for different types of data collection (and triangulation across the data) and to diminish the probability of collecting skewed or biased results in my research. I draw largely on primary and exploratory research by examining the gaps of literature regarding gender roles, and I learn about leadership opportunities by interviewing a key leader in the environmental movement in Príncipe. I also utilize previous, secondary research from collected studies done in the past. As the geographical area in which I will be located will be in Lisbon, Portugal I will depend on primary internet-mediated research to connect with Estrela. Furthermore, this paper will utilize a mixed method approach through incorporating past research on Príncipe’s conservation agenda with present conversations through interviewing Estrela herself. It will first incorporate quantitative, number-based data through looking at topics such as how much pollution has been improved, how influential Principe’s circular economy has been on economic activity, and the impact that conservation methods have had on tourism. Additionally, it will simultaneously foster qualitative findings to better understand the experience of the female mind that is acting as a catalyst in promoting change for future generations for not only Principe but far beyond the confines of Principe.

3.2 Ethics

One of the most crucial components in this study is to diminish any possible obstacles that could hinder the success and accuracy of answering my research question; what has Estrela Matilde experienced as a female leader in environmental sustainability. Prior to conducting research and interviewing Estrela, I disclosed all the information on the case study and had her sign a contract of agreement regarding consent for our conversation to be recorded and for her name to be used throughout the work. I worked to avoid introducing possible biases that can take place between the researcher and the research by formatting the questions to diminishing priming, or giving subtle cues in interview questions that can affect and influence people's answers. Furthermore, as I identify as a woman and also focused my study on the same gender I tried to avoid using a narrow-minded perspective that can have the potential to be argumentative or exclusive toward readers identifying with a different gender. Throughout this case study I foresaw this being one of the biggest factors to consider while both researching past literature, conducting new research, and composing my methodology for the study. In order to do so, I focused on a variety of questions to foster a deeper understanding of the dynamics between Estrela and leadership on Principe. I then utilized the information generated from my primary
research question regarding her individual and personal experience to then be applied to the broader secondary question regarding what women as a collective are facing in leadership that isn’t always being acknowledged.

IV. Results and discussion

4.1 Colonization & savior mentalities—emic vs etic perspectives

“We wanted independence and then we didn’t know what to do with it” -Estrela Matilde

After the Democratic Republic of São Tomé and Príncipe, gained independence from colonial influence, the local communities of Príncipe suffered from fragility within their institutions, economy, and social sectors due to the lack of knowledge regarding how to govern and function without externalities (Ayres et al, 2022). Though she arrived almost 50 years later, long-lasting effects of colonization influenced Estrela’s ability to work on the Island. Despite the strong bond that occurs between Portuguese colonies from the shared and familiar language, bridging the gap between her demographics as a white, European female in a foreign community has been an ongoing effort on both the part of Estrela as well as the locals with whom she has worked with during more than a decade of living on in Príncipe. While the locals hold a generally open-minded acceptance of Estrela’s presence on their home Island, as evidenced by the success of the Fundação, Estrela has noted that a contrasting sense of resentment sometimes lies below the surface as a result of past injustices that have been imposed on this community from a long history of colonial rule. The mindsets and attitudes toward outside influence vary largely based on generation. Older citizens have the tendency to prefer the structure that colonial presence provided the communities—including a “securer”, yet paternalistic, approach toward development with respect to education, hospitals, farming, and overall living conditions. On the other hand, younger generations tend to hold a greater emic or ingroup perspective toward etic or outside influence, as they did not experience colonial rule first-hand.

As the interplay between cultural pasts largely determines our present interactions, Estrela has worked to navigate the complex relationship between her identity as a European woman and her desire for connection in a colony of her home country, Príncipe. This has prompted Estrela to set aside her idea of ‘normative’ beliefs that are largely based on European ideals and, in turn, to seek to disrupt the historical pattern of outside imposition and instead to emphasize the importance of truly learning from and with the people of Príncipe. Through an ongoing process of trial and error, with no perfect end-point in sight, Estrela has learned how to respect other cultures while simultaneously opening spaces in the community for potential improvement. While she initially planned to remain in Principe for only a short period of time after first coming to the region at the young age of 27, she has now built a life and a community for herself and her young son 10 years later. Despite living conditions being oftentimes less efficient, with an ongoing lack of energy, electricity, and overall simplicity that her home in Portugal offers, the resilience of the Príncipe people has been one of the main factors that has encouraged Estrela to keep her life on the secluded Island and simultaneously fostered an immense amount of growth in her understanding of leadership and the world as a whole.

4.2 Estrela’s conservation agenda

“Working to become unemployed” -Estrela Matilde

Estrela offers a unique perspective through her work on Principe by not only valuing the natural biosphere and protection of endemic species, but similarly valuing the living conditions
that the local people endure as well. Her motto of “working to become unemployed” emphasizes the platform that she hopes to create for citizens to stand at the forefront of conservation efforts in Principe. By this she means, she hopes to work herself out of a job by eventually finding that the issues that Fundação is seeking to resolve are just that, resolved. She works to utilize her somewhat privileged position and resources through donors for Fundação Príncipe to ask and then listen to the needs of the local population as to how their lives can be improved. As the unique geography of the Island holds great potential for generating both economic and sustainable development, this is only possible if projects are implemented in the correct way. Thus, she works to educate the communities on how they can benefit directly from utilizing their unique natural resources on Principe and, through this, derive a sense of purpose in a community where opportunities are extremely slim. This goal is evident within each of Fundação Príncipe’s projects, such as mobilizing the income from the turtle attraction on the coast to be given back to the communities that prioritize sustainable efforts. Within Estrela’s’s leadership, the complex term conservation is a constantly evolving notion that should be “with and for the people.’

Furthermore, Estrela merges the reality that the power of money has on our global world through utilizing it as an economic and social incentive. She believes that capitalist ideals can go hand-in-hand with sustainability if practices such as privatized tourism are diminished and local communities truly benefit from attractions that their land offers tourists. Yet, when interacting with foreign communities, personal narratives of ‘right vs wrong’ need to be avoided so a savior mentality is not inflicted. For Estrela, working with these communities has been an ongoing process of trial and error through setting aside her personal ego and humbly discerning, and welcoming, differences.

This perspective was evident in the Bumbu D’iê Projeto, which promotes sustainable beekeeping on the Island. Fundação Principe was quick to ‘improve’ the imperfect honey by assuming that the locals would prefer a purer form to the rough original honey product that Estrela first found when she began this work. When sales generated an all-time-low after the alteration, they soon realized that although less pure, the original form of honey had been preferred by locals for medicinal purposes. The notion of ‘ask, don't assume’ arose from this example, and Estrela learned that white, Europeans who strive to effectively work with formerly colonized communities, must first learn how to recognize and then work to break past injustices by hearing what locals want and think, and then acting upon this. As Estrela learned, when listening is prioritized better things happen as projects won’t be based on outside, Western normative ideas. Estrela has experienced the influence that historical outside influence has had on creating a culture within the local people to often lie as opposed to voicing their true opinion, consequentially making it difficult for her to trust their familiar agreement at times.

4.3 The matriarchy of Principe

“Do not underestimate the internal pressure which can be worse than the external one, and harder to deal with. The need to have to prove ourselves is very strong and we need to prove ourselves in all the areas of our life, which can be exhausting... “ -Estrela Matilde

Estrela’s work reaches far beyond sustainability efforts by unraveling systemic issues surrounding gender, opportunity, and equality in Principe. Thus, she surpasses strictly sustainability efforts through generating change on a social scale by challenging traditional narratives that have allowed one gender to lead, men and one gender to be restricted, women. A large component of Estrela’s’s agenda has revolved around the focus on predominantly the female communities among the Principe. Deep-rooted gender norms have largely left Principe’s
women with little to no opportunities in life, while the men hold far greater options in generating a living. As the men commonly have children with multiple partners and divide themselves among different families, the women are the backbone and foundation of singular homes. Furthermore, a long cycle of culturally accepted violence toward females in both Príncipe as well as among the larger Western sphere of Africa has taught girls from a young age that their roles begin and end in the confines of the home through child bearing and rearing, as learned from the examples of their mothers. Through Estrela’s’s efforts to first educate and, in turn, expand financial opportunities, she hopes to guide women toward making an income and diminish the cycle of male dependency. Yet, while challenging deep-rooted gender roles that have left women with far less privileges, she similarly respects the cultural components that have shaped Príncipe by simply creating a space for change if and only if this change is desired by the local people.

4.4 Gender & leadership style– Estrela growing into Estrela

“I wanted to play soccer but being a women wasn’t normal to play so I created the first female soccer team in my town” -Estrela Matilde

Estrela’s understanding of stereotypical gender roles developed with age and experience as she was the youngest of three older brothers growing up, and the youngest out of her male colleagues today. These circumstances have often left her feeling less respected or, at times “viewed as a child” within both her family and her professional life. Yet, the desire to prove her worth and abilities has acted as an ongoing catalyst toward shaping Estrela’s her leadership position in Príncipe today. One of the biggest influencing factors that has prompted her in finding her voice as a female and as a leader has been constantly surrounding herself with strong female energy. She had the unique privilege of witnessing her mother shift from being a somewhat submissive voice to a strong-willed and self-respecting independent person by fostering her love for traveling the world despite her husband choosing to stay behind. Furthermore, Estrela wrote her final degree thesis on Diane Fossey, an American primatologist and conservationist who dedicated her life to studying female gorillas in the heart of Central Africa in Rwanda. Doing such deep work on female leadership shaped who she is today.

From a young age she created the first female soccer team in her hometown after discovering her love for the largely male dominated sport at the time. More recently, she decided to accept a leadership position in the sustainable tourism industry on the still unfamiliar Island of Príncipe initially when she arrived, at the young age of 27. After Estrela and her team began the NGO Fundação Príncipe soon after, a male colleague was hired to fulfill the director position when she claimed to be unfit and underqualified for it. Yet, as her team continued to turn to her for guidance, her qualification as a leader and director gradually became more solid and recognized. To this day, despite the various demographic differences that initially made connecting with her colleagues difficult, from nationality, to age, to gender, to race, Estrela has continued to both teach–and be taught by–her team at Fundação Príncipe. As the foundation has grown from 4 employees to 64, with locals now making up 94% of the team, opportunities for Estrela to continue growing from the influence of the community are abundant. While many of the men she collaborates with have been socialized to interact with women in a dominant manner, by allowing Estrela room to lead, it has taught them to value and respect women’s capabilities beyond child bearing and home labor. Furthermore, Estrela has learned to understand the differences that time has across cultures. She cannot schedule a meeting for the community to congregate at 11am because the women will be absent as they are cooking lunch and only the men will be available, thus creating biased findings. These realities reach far beyond Estrela’s
conservation efforts and by spurring an everlasting cycle of teaching and learning between her and the Island’s cultural distinctions.

V. Conclusion

This case study explored how Príncipe is currently navigating the complex interplay between past inequalities and future improvements with an emphasis on gender roles in leadership through the work of conservationist and female leader, Estrela Matilde. For the ‘ideal’ future to embody each of the United Nations SDG goals by 2030, Estrela’s work should be a widely utilized example in a world currently lacking female representation within our institutions, businesses, and arguably most important, our direct communities. Throughout this study, a variety of social problems were addressed, yet Estrela’s work most emphasized combating gender inequality and promoting sustainable coexistence between humans and our natural world by leading through example. Her role at Fundação Príncipe was inspired by those who influenced her throughout her life, often being strong female figures. When studying Fundação Príncipe’s projects, an ongoing theme often lay beneath the surface— the importance and power that promoting education at an early age during children's most formative years of development can have on shaping the world. Her vision for Príncipe’s future fosters younger generations' perspectives in achieving inclusion, participation, and sustainable living practices by creating positive environments to raise children in. In conclusion, the world must heal from past divisions between nationalities, cultures, and in this context genders. For gender equality to be truly sustained, it seems we must reach beyond conventional efforts that have been made in the past such as implementing legislation and policies that promote equal pay and gender diversity in the workforce. Instead, the global world should develop gender equality and empowerment during childhood by fostering a long-lasting cycle of strong females raising future generations of girls who are able to speak up for change and boys who are able to stand back and listen. Going forward, as this research focussed directly on the small region of Príncipe on the West coast of Central Africa, future work should be conducted on larger geographical regions and more culturally diverse nations such as Europe, the United States, and the Global South to similarly benefit from Estrela’s light.
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VII. Appendix A: Data analysis technique & outline of interview with Estrela Matilde

- What has been the interplay between being a foreigner from Portugal and working with the Príncipe communities, has the shared language of Portuguese helped to bridge the two cultures?
  - Strong bond between portuguese colonies that feels familiar yet there is also a resentment due to history and colonization
  - Older residents on the islands who lived during colonial times missed the structure of the island when portuguese influence was there due to development, production, farming, schools, hospitals “we wanted independence and then we didn't know what to do with it” as they depend on external help
  - Younger generations are more resenting of outside influence “no matter how many years im here im always going to be seen as an outsider” despite being there for 10 years and having nationality
  - There is a disconnect between locals feeling that they are owed due to past injustices, waiting to be repaid
  - Príncipe is a hard place to live due to isolation usually without energy, power, efficiency
  - One of reasons that made her stay was how she became part of the community and was welcomed on the small island
  - She came to learn not just to teach, diminished savior mentality through acknowledging her demographics yet putting them aside and connecting as one with the residents
  - The resilience of the population attracted her to continue living in the community
  - Hearing how she can aid in improving living conditions and using her position to find resources
  - Showing residents how the unique geography of Príncipe such as having the highest rate of endemic species on the island that needs to be protected can work in their favor and give them purpose=open ie. the community fund from money that turtles attract, jewelry from old bottles
  - For conservation, it is a constant learning process as new conservation methods are making decisions with and for the people as it is their land
  - The species and the people are equally valued and important
  - Conservation is based off of involving the communities directly which gives everyone economic and social incentive, the main goal is to use money as an incentive
    - The tourists coming to visit the nesting turtles pay and the money goes back into the communities through the community fund because then they understand that conservation is for them rather than the “bigger man”
- Based on your experience and your work, what is the biggest threat towards achieving a sustainable world today?
  - “Working to become unemployed”
  - The lack of English speakers on the island puts locals at a disadvantage for grants, projects, tourism, etc.
Tourism using commercialized hotels don’t contribute to the entirety of the region, just the company, tourism needs to shift toward being more concerned with the environment and working in unison with local people.

They believe that tourism is a positive tool that can contribute to conservation

Do you feel that environmental studies and sustainability is an equal field to work in between genders

Do you feel that your gender has shaped your leadership style such as how you approach problems, interact with others, etc.

- “For sure” gender is always important in shaping everything
- Age developed her leadership as she started young and felt that her abilities were doubted as her colleagues were older and men
- Regarding leadership despite her male colleagues having children and many women they only know how to order people around, not how to lead and to mediate so working with her has shown them how to interact and respect women
- Environmental education practitioner, Gorni Spe is an example of a woman who has learned that she can hold influential positions
  - history—She came to work for a tourism company at 27 because the multi millionaire owner wanted to develop an island for sustainable tourism, the company had teachers teaching english, anthropology, environmental studies, etc. until they wanted to cut everything that wasn't related to tourism, they had a partnership with AHAHAH and realized they could become an independent NGO in 2016 growing to 15 different donors growing from 4 employees to 64 with 94% being locals
- Respect some gender roles based on comfortability without fully forcing, open up the opportunity and option as equal
- More money that men have more young women as it is a symbol of power and social status, but they don’t speak about it openly and it is not official

Do you feel that it was harder to obtain respect with colleagues and those you are leading because of your gender?

- Can't say which demographic made it hard to connect at first but she felt very trusted by them as they accepted her leadership
- After hiring a man as the director for the position that she didn't feel cut out for that didn't vibe well with the island, the team turned back to her for leadership and advice
- Because of this she was taken in and chosen which made her confident in her abilities

Children

- The island has 8,000 people and 4,000 are children but there is no opportunities so teenage pregnancy is very high which makes sense as the young girls have no future and the only role they see is that of their mothers as caretakers, it is what they are exposed to
- There is a pressure to have children early in life and if you don’t you are deemed broken by society but if you get pregnant your opportunities are reduced so it puts women in bad positions

Have you ever felt your abilities questioned because of your gender?
- Do you feel the need to present yourself differently when working in different situations ie. will you wear the same clothes regardless, will you use the same hand gestures and expressions, etc.
  - “Of course we need to adjust yourself to the public and to whom we are speaking”
  - When working with the communities we need to take into consideration cultural norms such as holding meetings at 11 only men will show up as women will be cooking lunch
  - I want to have locals at the frontline of the projects and at the face of the organization so I have started staying back in the office and out of public speaking positions, “she wants them to take the leadership, the role, and the position because they have the capacity to do that”
- Relationship between emic and etic perspectives
  - When europeans and white people are coming in, they need to drop egos and understand how locals think, live, see the world which then shapes how to approach the people you are talking to
  - People have a tendency to lie often as they are used to saying yes to more things than they actually agree with, it is culturally normal to do this which can make trust hard between people, her local friend said she was the one coming in with a different culture and that she couldn't have expectations for how the local community should act based on her “norm” standards”-- she needed to understand her position and diminish savior mentality by accepting that maybe they don’t want to be influenced by outside forces
  - Legislation with local communities around bee keeping project focused on making the honey better but then the locals didn't buy any because they didn’t want to original honey to be changed despite it being less pure as they used it for medicinal purposes for products
  - Cant shape projects based on western normative ideas– when you prioritize listening better things happen
- What time in your life did you notice stereotypical gender roles show the most? How did you navigate that?
  - Always as she is the youngest of three older brothers who are much older which made her feel less respected and seen as a child and a girl which was even worse
  - “I wanted to play soccer but being a women wasn’t normal to play so I created the first female soccer team in my town”
  - Always had the feeling of needing to prove herself
  - Had a strong mother as a role model who had her late in life who was submissive all of her life and then she was fed up with it and decided it was enough and went to travel
  - She grew up with her and her mother finding her power even if it was later in life
  - Her mother wasn’t waiting for money and wealth she decided to go
  - Always had strong women inspiring her, her thesis was on female gorillas and studied the influential female gorilla researcher named Diane phosphate
- If there was one thing you would want to share with young females who are navigating how to be a strong, smart, and confident leader in a world that might confine them due to their gender, what would it be and why?
- Ideas
- Matriarchal society because men divide themselves between many different families while women hold down one singular house
- Break cycle of violence through working with women directly as they are the household
- Change mindset of women by giving them opportunities
- Savior complex by Estrela has been used against her in order to create a divide between the women she is leading and herself
- Patrolling of turtle nests

**VIII. Appendix B: Form of Consent**