Values of Sustainability
A Case Study of Environmental Development and Growth in Costa Rica and Brazil

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by

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VALUES OF SUSTAINABILITY

A CASE STUDY OF ENVIRONMENTAL DEVELOPMENT AND GROWTH IN COSTA RICA AND BRAZIL

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The debate for implementing environmental security on a global scale has been interpreted in various ways for particular state interests and demands. Such demands deepen the divide for development opportunities between the global North and South. The consensus on the importance, enactment, and enforcement of environmental sustainability measures becomes more challenging. However, recognition of the effects of environmental degradation and its link to economic growth has prompted a new consideration of development—sustainable development. This notion, as established by Brundtland Commission Report "Our Common Future" in 1987, illustrated the responsibility of nations, individually and collectively, to reconsider the impacts of social development and economic growth in relation to environmental limits.[1] More specifically, the Brundtland Report defines sustainable development as a process and framework that integrates environmental policies and development strategies to ultimately "meet the needs of the present without compromising the ability of future generations to meet their own needs".[2] This understanding will form a basis of analysis on the grounds of the possibility for environmentally sustainable development in the Global South.

Latin America, is of important ecological interest given that it is one of the most biodiverse regions, and has recently drawn international attention for its environmental politics and conservation efforts. This paper will examine Costa Rica and Brazil in order to analyze two extremes of environmental development and their sustainability in the region. Although there are obvious differences such as size, population, and history, both countries are in important positions to pursue sustainable environmental development for the region and globally. Costa Rica, or the "Green Republic", has increasingly been recognized as a "model" for environmental

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[1] United Nations, *Report of the World Commission on Environment and Development: Our Common Future*, accessed January 16, 2018, http://www.un-documents.net/our-common-future.pdf.

[2] See note 1

development given its ongoing pursuit for sustainable social and economic development, nature conservation, and a growing ecotourism industry.[3] Brazil—an economic power in the region and the world—has long relied on the support of its resources to foster development and growth, which has had stricter implications on the environment, and thus the nation's overall development. Although both do have general differences, a noteworthy consideration is the "political will" to implement and enforce sustainable growth and development.[4] As such, various interests need to be regulated and addressed in order to guide development possibilities.

To analyze the progress of sustainable development in both countries, the political systems will be discussed to further understand how the institutionalization and efficacy of environmental governance is employed and interpreted in the agenda for its security. Based on that analysis, a socioeconomic aspect will be considered to further explore state support for a sustainable living environment, and likewise the local embodiment of these resources as values for environmentalism. From there, an economic assessment will follow to uncover the notion of "market-based environmentalism" to understand how sustainable development can be financed in both countries, and if it projects "sustainable growth". Additionally, the possible link between environmental development and economic growth from ecotourism will be examined to understand what it contributes in both countries. Lastly, the outcomes and possibilities of acceding to international conventions by both nations will be assessed to understand the theoretical and practical implementations of their sustainable development efforts.

While both Costa Rica and Brazil both address sustainable development measures, each face different trade-offs for such pursuit. Brazil's ecological wealth and emerging global power

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[3] Luis A. Vivanco, *Green Encounters: Shaping and Contesting Environmentalism in Rural Costa Rica*, ed. Roy Allen, vol. 3 (Berghahn Books, 2006), 3

[4] United Nations, *Report of the World Commission on Environment and Development: Our Common Future*, accessed January 16, 2018, http://www.un-documents.net/our-common-future.pdf.

has influenced the prioritization of short-term economic growth over long-term development, while Costa Rica has adopted a different take on ecological wealth via conservation methods adjusted to influence a balance between economic growth and social development for long-term returns. This paper will examine how the concept of limits to growth has influenced environmental security and nurtured values of sustainability in the development of Costa Rica and Brazil respectively, alongside international and local demands.

Political Interest

The political history of Costa Rica and Brazil has considerably impacted the formation of current state structures and their ability to implement sound environmental governance strategies. Arguably, an important aspect towards governing sustainability is that of democracy, given the emphasis placed on participation and the individual rights attributed to influence policymaking.[5] As a result, the right to environmental security and the increasing pressure for regulation on its conditions becomes a right of the individual, and thus that of the state to execute.

The institutionalization of ensuring environmental rights and security in both countries is evident, as they have acknowledged a constitutional right to an ecologically balanced environment. The inclusion of this notion in Brazil's constitutional reform became one of the most advanced regarding environmental protections at the time.[6] Specifically, it outlined the community and government's duty to protect, preserve, control, and restore "for present and future generations".[7] Whereas Costa Rica's reform recognized the importance for persons to "denounce the acts that infringe this right and to claim reparation for the damage caused", as the

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[5] Gavin O'Toole, *Environmental Politics in Latin America and the Caribbean*, vol. 1 (Liverpool: Liverpool University Press, 2014), 49

[6] O'Toole, 81

[7] Constitution of the Federative Republic of Brazil, 150 § 6-Article 225 (1988).

State pledged to defend and preserve this right.[8] Although both aim for the same goal, there is a different presentation of sustainability encompassed within the legal framing, particularly towards accountability. Nonetheless, for constitutional reforms to include environmental security, as a right of the individual is important, but equally important is the effectiveness and ability to implement and demonstrate such accounts. This is indicative of the political structures and their undertaking based on interpretations and concerns for development and growth.[9]

To further explore these structures it is worth considering the transition to democracy that emphasized values of environmental balance. Costa Rica became a democratic nation in 1949, after a civil war that ultimately prompted abolishment of military forces, in some sense illustrative of how the nation would re-conceptualize the notion of security within. Brazil re-established itself as a democracy in 1989, after a 20-year military dictatorship. The influence of the military however, continues to impact the political and democratic structures for development and economic growth.[10] With this in mind, both cases will be briefly explored in terms of the democratic values and efforts geared towards sustainable development to better understand the support for environmental security. However, it is worth keeping in mind the difference in size and current existence of natural resources within both nations, as this can reflect political choices and context for state development and nature protection. The political measures for sustainability in this case will be explored through land preservation efforts,

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[8] Political Constitution of the Republic of Costa Rica, §§ 5-Article 50 (1969).

[9] For this research paper, growth and development will be understood differently, particularly in long and short-term results.

[10] Timothy J. Power, "The Brazilian Military Regime of 1964-1985: Legacies for Contemporary Democracy," *Iberoamericana* XVI (2016): , 2016, accessed February 27, 2018. Consider the "Brazilian Economic Miracle"

particularly forestry control and management, as it can demonstrate political will towards addressing progressive environmental rights.[11]

Costa Rica has arguably enjoyed democratic stability, environmentally conscious values across its populace, and a more egalitarian and homogenous culture.[12] These attributes have considerably provided a political setting that fosters environmentalism as part of the nations identity and interests.[13] In this sense, state regulations for environmental resources have become synonymous for development and growth; therefore implementation of environmental security becomes highly significant. More specifically, the effects of Ley Forestal in 1969 (Forestry Law) can be divided into three periods based on reforms. The first, "laissez-faire" prior to the 1970's, saw the significant disappearance of forestland with little to no government control.[14] This led to a government response in what is known as an "interventionist" period between 1970-1980. There, protection, preservation, reforestation, and regulation frameworks were introduced, but inefficiencies were met in supervising these stipulations.[15] As such, the government created different ministries and attempted to decentralize environmental security forces, encouraging landowners and the public to cooperate and participate, with the aim to create more impact

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[11] Considering the time difference in establishment of democratic states, it is important to address the vast deforestation that occurred in Costa Rica influencing national concern and call for conservation efforts. Putting it into context, Brazil has not fully reached that point of deforestation, but has the ability to ensure preventative efforts.

[12] Charles D. Brockett and Robert R. Gottfried, "State Policies and the Preservation of Forest Cover: Lessons from Contrasting Public-Policy Regimes in Costa Rica," *Latin American Research Review* 37, no. 1 (2002), 8

[13] Gavin O'Toole, *Environmental Politics in Latin America and the Caribbean*, vol. 1 (Liverpool: Liverpool University Press, 2014), 79

[14] Brockett and Gottfried, "State Policies and the Preservation of Forest Cover: Lessons from Contrasting Public-Policy Regimes in Costa Rica.",13-16

[15] Brockett and Gottfried, "State Policies and the Preservation of Forest Cover: Lessons from Contrasting Public-Policy Regimes in Costa Rica.",16-20

across the nation.[16] Herein lies the 1990's "hybrid" forestry regime, which ultimately divided Costa Rica into eleven conservation areas, recommending they be independently financed and administered with national and regional offices of forestry services integrated into each area.[17]

The importance of these policy approaches and changes in Costa Rica reflects the progressive interest for environmental conservation by subsequent governments in power. However, funding initiatives for these areas has inequalities given existing variance based on external funding interests and initiatives. But, for this reason, it is important to acknowledge that Costa Rica's policy "success" has greatly been influence by actors outside the political sphere.[18] Non-governmental forces and individuals have influenced and pressured policymakers on the importance of conservation efforts, and have been given legal recognition to accept overseeing duties based on federal forestland regulations.[19] As a result, the changing and adaptive policy features for forest protection and management have illustrated consideration of present and future needs by encouraging democratic values of participation and accountability from various sectors and actors to better implement values of sustainable development and growth.

Brazil's political structures suffer from an interesting contradiction, in part due to the size of the country and the political organization that makes integration more difficult in regards to environmental policies and the development model adopted. The country is divided into states; municipalities, states, and federal governments have the authority to legislate environmental

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16 Sterling Evans, *The Green Republic: A Conservation History of Costa Rica* (Austin: University of Texas Press, 1999), 67

17 Charles D. Brockett and Robert R. Gottfried, "State Policies and the Preservation of Forest Cover: Lessons from Contrasting Public-Policy Regimes in Costa Rica," *Latin American Research Review* 37, no. 1 (2002), 21-23

18 Eduardo Silva, "Selling Sustainable Development and Shortchanging Social Ecology in Costa Rican Forest Policy," *Latin American Politics and Society* 45, no. 3 (2003), 98

19 Brockett and Gottfried, "State Policies and the Preservation of Forest Cover: Lessons from Contrasting Public-Policy Regimes in Costa Rica.", 27

matters.[20] The federal government sets the law with general guidelines, but states and municipalities can create more specific legislation based on their needs as long as they do not contradict higher law.[21] As such, responsibility for enforcing environmental policies is thus assumed more locally. The concern, however, lies in the methods of implementing environmental protection, given that legal means are not always clear due to responsibility overlap, or "institutional transitions",[22] which arguably weakens a sense of accountability when ensuring sustainable rights are guaranteed or pursued effectively by the country.[23]

Moreover, the notion for protecting land has been discussed in Brazil since the 1930's, leading to the creation of a Forest Code defining three types of protected areas: national parks, national forests, and protected forests. Since then, multiple changes and additions have been made, the most recent system being ratified in 2000, where there are two kinds of protected areas, one for integral protection, and the other for sustainable use.[24] These areas can be created at the municipal, state, or federal level. But, because sociopolitical and economic regional differences remain within the country, national environmental concerns are not always, or equally, prioritized. In other words, inter-regional inequalities and governing structures affect implementation of federal environmental policies based on particular needs and interests. Rather,

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[20] Jose Antonio Puppim De Oliveira, *Implementation of Environmental Policies in Developing Countries: A Case of Protected Areas and Tourism in Brazil* (Albany, NY: State University of New York Press, 2008), 51

[21] Jose Antonio Puppim De Oliveira, *Implementation of Environmental Policies in Developing Countries: A Case of Protected Areas and Tourism in Brazil* (Albany, NY: State University of New York Press, 2008), 51

[22] Puppim De Oliveira, 52

[23] Liz-Rejane Issberner and Philippe Léna, eds., *Brazil in the Anthropocene: Conflicts Between Predatory Development and Environmental Policies* (New York, NY: Routledge, 2017), 318

[24] Puppim De Oliveira, 54

success depends on local governing entities and their political will to advance federal programs, despite what the federal constitution declares.[25]

In this sense, environmental legislation and enactment on behalf of the Brazilian government lacks cooperation and cohesive interest for national sustainable development measures. This is in part due to the growth model adopted during the dictatorship, which illustrated possibilities for significant growth in a short amount of time, also referred to as "50 years in 5".[26] This concept of development greatly demonstrated the potential for growth provided by the environment and the returns for those who could control it; impacting how political decisions would consider the environment and sustainability. Thus, the Brazilian state has become a principal regulator and developer of its environmental elements, where regulation and prevention become symbolic efforts with less evident concern for long-term meaningful returns.

Overall, the political realm for both countries has interpreted environmental security according to their best means for development and growth. A similar attempt found in both countries is the transfer of power to agencies and local levels for enforcement abilities, but a difference in sociopolitical relations within the institutions and society have affected this possibility. In Costa Rica, decentralized structures are able to strengthen enactment abilities between the state and its population, nurturing an environmental ethic. Whereas in Brazil, efforts to decentralize became inefficient as particular interests were given more weight, further distancing environmental values and the ability to implement its protection.

Socioeconomic Values

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[25] Rejane Issberner and Léna, 308; 310

[26] Liz-Rejane Issberner and Philippe Léna, eds., *Brazil in the Anthropocene: Conflicts Between Predatory Development and Environmental Policies* (New York, NY: Routledge, 2017), 42

Upon drawing international attention to sustainable development concerns, the Brundtland Report was followed by the 1992 Earth Summit in Rio de Janeiro, Brazil, creating what is known as Agenda 21 as part of the United Nations Conference on Environment and Development. This Agenda outlined an action plan focusing on how the international community, countries, and various levels of government ought to organize structures and relations in accordance with conscious management and consideration of the environment for sustainable growth and development, particularly in developing countries.[27] Based on this notion, a socioeconomic analysis will be applied to examine how both nations were able to integrate development and the environment via the allocation of resources for human development based on figures from 2002, ten years after the Rio Summit. These include attention to education, health security, and poverty alleviation efforts in respect to sustainable development, not just economic growth. Additionally, the civilian embodiment of environmentalism as a value influenced by and to the state will be discussed, given the impact to resource access and provision as created by the nation. In linking these quantitative values with qualitative notions, it is important to consider the notion of ability and capacity. In order for a country's ability to follow accordingly with sustainable development, the capacity of its people and institutions becomes necessary to foster such values and perspectives for improvement of ecological and geographical conditions.[28]

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[27] United Nations Conference on Environment and Development. 1992. *Agenda 21, Rio Declaration, Forest Principles*. [New York]: United Nations.

[28] See note 27

Costa Rica's population in 2002 comprised of 4.07 million people,[29] while Brazil's population stood at 180 million.[30] Additionally, at the time, GDP figures stood at an increasing $16.5 billion USD for Costa Rica, and at an increasing $507.9 billion USD for Brazil.[31] Considering these economic values will help put into context the overall different pursuits for development and growth, as the allocation of funds by these countries becomes indicative of how each interprets both these two terms.

For instance, in the education sector, both countries have addressed the importance of environmental education for the younger population to create an environmentally conscious citizenry. However, the actual percentage of total government expenditure on education for both countries varies quite significantly during this year. Respectively, in Brazil this figure stood at 9.64 percent,[32] while in Costa Rica it was 19.24 percent.[33] In relation to the percentage of GDP, this would be equal to 3.75 percent for the former,[34] and 5.17 percent for the latter.[35] But, considering the relative size of the populace and the actual GDP, in context one can state that Costa Rica was investing considerably more towards education in relation to its population compared to Brazil. As such, literacy rates for youth aged 15-24 stood at 97.6 percent in Costa

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[29] ECLAC (Economic Commission for Latin American and the Caribbean): Costa Rica, "CEPALSTAT: Databases and Statistical Publications," United Nations ECLAC, 2018, accessed January 3, 2018, http://estadisticas.cepal.org/cepalstat/Perfil_Nacional_Economico.html?pais=CRI&idioma=english.

[30] ECLAC (Economic Commission for Latin American and the Caribbean): Brazil, "CEPALSTAT: Databases and Statistical Publications," United Nations ECLAC, 2018, accessed January 3, 2018, http://estadisticas.cepal.org/cepalstat/Perfil_Nacional_Social.html?pais=BRA&idioma=english.

[31] "GDP Data," The World Bank, 2018, https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=CR-BR.

[32] ECLAC (Economic Commission for Latin American and the Caribbean): Brazil, "CEPALSTAT: Databases and Statistical Publications," United Nations ECLAC, 2018, accessed January 3, 2018, http://estadisticas.cepal.org/cepalstat/Perfil_Nacional_Social.html?pais=BRA&idioma=english.

[33] ECLAC (Economic Commission for Latin American and the Caribbean): Costa Rica, "CEPALSTAT: Databases and Statistical Publications," United Nations ECLAC, 2018, accessed January 3, 2018, http://estadisticas.cepal.org/cepalstat/Perfil_Nacional_Economico.html?pais=CRI&idioma=english.

[34] See note 32 above.

[35] See note 33 above.

Rica, and 94.2 percent in Brazil.[36] Similarly, in the health sector, Brazil allocated 7.13 percent of its GDP, and Costa Rica remained at 8.23 percent of its GDP.[37] It is worth alluding to the life expectancy rate for both, as Costa Rica led with an average of 77.8 years,[38] while Brazil stood at 71.2,[39] and in infant mortality rate, Costa Rica stood at 10 percent,[40] while Brazil at 17 percent.[41] That being said, a consistent redirection of funds to strengthen health security overtime in Costa Rica has seemed beneficial for providing a healthier living environment, even being compared to European developed countries.[42] Furthermore, in regards to poverty, Brazil stood at 37.8 percent,[43] and Costa Rica at 20.3 percent in 2002,[44] keeping in mind a population value, that is roughly 68 million people in Brazil, and about 82,000 people in Costa Rica. Although both amounts are not positive, there is more discrepancy between available funding, population, and actual allocation. In this sense, the aspect of pursuing sustainable socioeconomic development is more so evident and consistent in Costa Rica.[45]

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[36] See note 32 above.

[37] See note 33 above.

[38] See note 33 above.

[39] See note 32 above.

[40] See note 33 above.

[41] See note 32 above.

[42] World Health Organization, by María Del Rocío Sáenz, Juan Luis Bermúdez, and Monica Acosta, 2010, accessed March 2, 2018, http://www.who.int/healthsystems/topics/financing/healthreport/CostaRicaNo11.pdf., 3

[43] See note 32 above.

[44] See note 33 above.

[45] Edward L. Jackiewicz, "Community-Centered Globalization: Modernization under Control in Rural Costa Rica," *Latin American Perspectives* 33, no. 6 (2006): 136-46, accessed March 15, 2018, http://www.jstor.org/stable/27647975. It is worth considering the variables that come with comparing and measuring these figures, as access to these is not necessarily accounted for. Likewise with measuring poverty, given that economic measures are often only taken into account to determine one's economic classification, but do not always represent the provision and access to resources impacted by location, such as drinking water and sustainable living, as well as the number of people who are dependent on the income measured by the individual. More so, poverty measures do not take into account for environmental vulnerabilities individuals may face.

From this understanding, it is of great import to consider the realities behind the numbers, especially in regards to how environmentalism is embodied by the citizenry of these countries, and consequently by the governments, as determined with distribution. This is particularly expressed via a sense of nationalism that becomes interrelated between both of these entities in fostering sustainable living environments.

The aspect of conservation and preservation has contributed to changes in many aspects of social and economic life for Costa Ricans. Through political and civil sentiments and action, environmental ethic has become an element of identity and values. For example, concepts of property ownership were changed as lands were closed off and managed differently, as well as changes to the education curriculum, and labour opportunities.[46] Ultimately generating new ways for citizens to recreate their identities, "reflecting how they think about their relationships with neighbours, their place in the country, and in the wider world".[47] That being said, an environmental ethic and values in Costa Rica became linked to the process of human condition rather than solely environmental limits and outcomes.[48] Doing so enabled a progressive cultural and political understanding towards sustainability.

In Brazil, development has long been associated with growth, serving as an expression of nationalism; creating a varying acceptance of environmental values amongst the population due to regional differences that embody these values according to their needs. Due to the nation's development being inextricably linked to economic growth, nationalism in this case can become

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[46] Luis A. Vivanco, *Green Encounters: Shaping and Contesting Environmentalism in Rural Costa Rica*, ed. Roy Allen, vol. 3 (Berghahn Books, 2006), 5

[47] Luis A. Vivanco, *Green Encounters: Shaping and Contesting Environmentalism in Rural Costa Rica*, ed. Roy Allen, vol. 3 (Berghahn Books, 2006), 5

[48] Richard Munton and Kevin Collins, "Government Strategies for Sustainable Development," *Geography* 83, no. 4 (October 1998): accessed March 8, 2018, http://www.jstor.org/stable/40573108. 435

"politically reflexive" when it comes to foreign intervention of development measures.[49] Moreover, considering the realities of Brazil with a surge of urbanization and *favelization* of cities, an increase in social and environmental challenges further widens the imbalance for prioritizing environmental concerns.[50] This imbalance is further maintained with the need to reduce poverty and raise living standards, which entices prioritizing economic growth for development purposes. But, this also increases consumption patterns, which does not necessarily address sustainable means of living, while at the same time degraded environments continue to increase poverty. From this perspective, capacity and ability to enact environmental sustainability by the government and consequently its citizenry is limited and weakened with disaggregate imbalances, as "changing the quality of growth requires changing approach to development efforts".[51] Nonetheless, environmentalism as an identity has been understood differently externally and internally, as the country's image has been synonymous for ecological and resource wealth, but such versions of "wealth" vary depending on interests locally and nationally.

Aside from protecting the ecological terrains of these countries, the socioeconomic aspects identified helped put into perspective the impacts of environmentalism on the population by the state in regards to nurturing a habitable sustainable environment. Resource allocation in the early 2000's served to indicate how these countries were initiating their pursuit of Agenda 21, and how they would be interpreting notions of capacity and ability alongside values of

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[49] Gavin O'Toole, *Environmental Politics in Latin America and the Caribbean*, vol. 1 (Liverpool: Liverpool University Press, 2014), 79

[50] O'Toole, 171

[51] United Nations, *Report of the World Commission on Environment and Development: Our Common Future*, accessed January 16, 2018, http://www.un-documents.net/our-common-future.pdf.

environmentalism and its sustainability going forward. However, it is necessary to recognize the external demands that can influence both countries' paths for development.

Economic Development and Growth

When it comes to economic development and growth of environmental sustainability, it is essential to recognize the economies that dictate such foundations. In a global North and South dichotomy, contemporary environmentalism in developed countries often emphasizes conservation and the issues pertaining to quality of life, whereas in developing countries, such as those in Latin America, environmentalism is more so interpreted by the dependence on nature for survival, including the access to forest resources and fertile land.[52] This disconnect in global perceptions of environmental significance often leads to overlooking the North's increasing commodity consumption that has left developing countries to assume export-led economies as a way to "survive". In particular, raw materials and natural resource extraction remains prevalent, as resources were made available and overtime adapted to meet increasing demand alongside increasing populations. In this case, economic development is represented by the supplier role of these nations, while growth becomes dependent on the export of commodities. With this in mind, the trade-off between economic growth and environmental development has often been at the debate for ecological security and its development, but "market-environmentalism" will be explored to further understand if sustainable development can be economically sustainable.[53]

Over the last decade, both Brazil and Costa Rica have undergone significant changes in terms of demands and exports, as Costa Rica's export sector accounted for $9.9 billion USD in

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[52] See note 51 above.

[53] Liz-Rejane Issberner and Philippe Léna, eds., *Brazil in the Anthropocene: Conflicts Between Predatory Development and Environmental Policies* (New York, NY: Routledge, 2017), 84-85

2016, while Brazil totaled $185 billion USD.[54] However, the leading commodity in these two has changed over time, as the former's leading export has become medical tools and appliances totaling 20 percent of its exports and a $1.99 billion USD value, followed by bananas and fruits at around $1.96 billion USD collectively, and coffee at $309 million USD.[55] Whereas Brazil, in the last decade has seen significant growth in the soybean industry, standing at 10 percent in 2016, a $19 billion USD export value, followed by iron ore production at $13.1 billion USD, raw sugar worth $10.4 billion USD, and crude petroleum at $9.9 billion USD.[56] The reliance of these export-led sectors and trade has most severely impacted the environment and its use to meet demands for great economic profit.

It is also worth considering the role of main foreign market actors, such as the United States, the European Union, and most recently China. In particular, the latter's influence over the region has impacted production and demand given the commodity boom and population rise, as China accounts for a top export and import destination of both countries at study, although at variably different economic values. In 2016, for Costa Rica, China contributed 0.46 percent to Costa Rica's export sector,[57] while for Brazil it was a leading export recipient, accounting for 18.9 percent of total exports.[58] Conversely, China accounts for 13.6 percent of Costa Rica's

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54 United Nations, Department of Economic and Social Affairs, *2016 International Trade Statistics Yearbook,* 2017, accessed March 4, 2018, https://comtrade.un.org/ITSY2016VolI.pdf., 108-09;142-43

55 United Nations, Department of Economic and Social Affairs, *2016 International Trade Statistics Yearbook,* 2017, accessed March 4, 2018, https://comtrade.un.org/ITSY2016VolI.pdf, 142-43

56 United Nations, Department of Economic and Social Affairs, *2016 International Trade Statistics Yearbook,* 2017, accessed March 4, 2018, https://comtrade.un.org/ITSY2016VolI.pdf., 108-09

57 World Integrated Trade Solutions, accessed March 1, 2018, https://wits.worldbank.org/CountryProfile/en/Country/CRI/Year/2016/TradeFlow/Export.

58 World Integrated Trade Solutions, accessed March 1, 2018, https://wits.worldbank.org/CountryProfile/en/Country/BRA/Year/2016/TradeFlow/Export.

import origins, and 16.9 percent in Brazil.[59] Such a significant role in the economic sector influences an increase in growth opportunities, but also affects the primacy of environmental protection efforts, particularly in Brazil considering its development greatly relies on the supply of natural elements to generate economic growth. For both countries, such growth has come with a price, as these sectors were and continue to be led by the expansion and clearing of land to meet external demands, at times contributing to a food security debate upon lands becoming crop concentrated.[60] However, land management practices and environmental considerations have to some extent curtailed these practices, but more so evidently in Costa Rica with a decrease in deforestation, increase of reforestation, and more awareness socially and politically towards environmental sustainability.

A brief consideration of service exports is also worth alluding to, as Costa Rica's value increased by 12 percent, accounting for $7.2 billion USD in 2015, with travel-related service exports totaling 45.4 percent.[61] For Brazil though, export services decreased in 2015 by 15.8 percent reaching $33.3 billion, travel accounting for the second biggest share with 17.5 percent.[62] The relevance of such values and the export service sector are worth mentioning, as it demonstrates Costa Rica's attempt to balance commodity reliance and a service based capacity to stabilize market-based growth with environmental development and security. Whereas in Brazil, the influx of revenue generated from commodities compared to services illustrates its

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[59] United Nations, Department of Economic and Social Affairs, *2016 International Trade Statistics Yearbook,* 2017, accessed March 4, 2018, https://comtrade.un.org/ITSY2016VolI.pdf., 108-09;142-43

[60] Gavin O'Toole, *Environmental Politics in Latin America and the Caribbean*, vol. 1 (Liverpool: Liverpool University Press, 2014), 134

[61] United Nations, Department of Economic and Social Affairs, *2016 International Trade Statistics Yearbook,* 2017, accessed March 4, 2018, https://comtrade.un.org/ITSY2016VolI.pdf., 142

[62] United Nations, Department of Economic and Social Affairs, *2016 International Trade Statistics Yearbook,* 2017, accessed March 4, 2018, https://comtrade.un.org/ITSY2016VolI.pdf., 108

greater importance and thus, implication for environmental degradation for economic growth and development. As has been recognized for both countries, the reliance of exports has ultimately shaped the structures of society and politics, as both have recently chosen what growth and development method is more profitable based on their needs and stance on sustainability. Based on this economic analysis, it is important to question how, and if, sustainable development can be economically sustained.

The discussion of social and economic responsibility for environmental degradation continues to be contested in global affairs, particularly between developed and developing nations. But, the recent marketization of the environment has increasingly gathered attention from different actors on a global scale based on profitable possibilities with "green development".[63] The notion of interests, especially economic, becomes key as various actors are able to generate political influence and invest funds supporting sustainable methods for development and growth. This aspect was outlined in Agenda 21 and again later at the Johannesburg conference on Sustainable Development in 2002 (Rio +10), where the prominence of sustainable development progress and responsibility also required support from national and private corporations, shareholders, and the role of non-governmental organizations.[64] However, as identified by the Economic Commission for Latin American and the Caribbean (ECLAC) and United Nations Environment Programme (UNEP), there are unequal factors that can affect the

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63 Gavin O'Toole, *Environmental Politics in Latin America and the Caribbean*, vol. 1 (Liverpool: Liverpool University Press, 2014), 207

64 Ana Isla, *The "Greening" of Costa Rica: Women, Peasants, Indigenous Peoples, and the Remaking of Nature* (Toronto: University of Toronto Press, 2014), 160

possibility of receiving finance for sustainable development in the region, primarily due to debt and foreign direct investment interests (FDI).[65]

Notably, external debt varies greatly between both Brazil and Costa Rica, which can impact investor perceptiveness, while also limiting the state's ability to enforce economic development with sustainable strategies, especially when significant growth opportunities are premised on resource extraction—as has been the case for Brazil. Not to mention, the inflows of private investment, particularly FDI, often target resource extractive activities.[66] In 2016, Brazil remained the main recipient of FDI in South America with a total of 47 percent ($78.9 billion), while Costa Rica received 27 percent of FDI in Central America ($3.2 billion), second to Panama at 44 percent.[67] These values illustrate an aspect of limitation to the implementation of sustainable development, as significant external funding strengthens commodity export economies.

However, there has been a more recent take on the possible role of the private sector in market-based environmentalism, or a "greening" of the economy. This notion includes the prospects of organic farming investment and the concept of fair trade as a market approach towards sustainable development, but continues to face obstacles of generating enough income for the producers who rely on it while also maintaining resource-extractive practices.[68] Additionally, a clean technology interest in the form of renewable energy has seen economic

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65 Gavin O'Toole, *Environmental Politics in Latin America and the Caribbean*, vol. 1 (Liverpool: Liverpool University Press, 2014), 216

66 O'Toole, 217

67 United Nations, ECLAC, *Foreign Direct Investment in Latin American and the Caribbean* (2017), accessed March 14, 2018, https://repositorio.cepal.org/bitstream/handle/11362/42024/4/S1700815_en.pdf., 12

68 Gavin O'Toole, *Environmental Politics in Latin America and the Caribbean*, vol. 1 (Liverpool: Liverpool University Press, 2014), 227

potential in Brazil,[69] as it was one of the top exporters of renewable energy products in 2007.[70] Another possibility of market-based environmentalism comes in ecotourism, which has had increasing investments and interest by private funds and donations via the role and establishment of non-governmental agencies. And lastly, the impact of "bioprospecting" has gathered influence from pharmaceutical and biotechnology interests as public-private initiatives for research importance on biodiversity and conservation efforts. In Costa Rica, the creation of their National Biodiversity Institute has collaborated in such research and generated funds for land security.[71] However, all these sectors have faced criticism as they impact some communities more than others with benefits not always being equally distributed or remaining in the country, and increasing the reliance on external funds. The debates against essentially stem from putting a price on nature and generating more service-based sectors for external benefits under the guise of conservation.[72] In this sense it is argued that "greening" is simply another way to generate capital accumulation.

Although creating a market from conservation efforts is not ideal, it is interesting to recognize the stimulus created for implementing progressive sustainable policies, and the role of external actors in helping to fund such initiatives. That is not to say that the market is best in organizing social and environmental relations, or that sustainable economies are equal in prospects, but it does increase awareness and political will. Rather than contradicting each other, economic benefit and environmental security can be balanced with management and interest of

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69 The energy sector in Brazil is very important to analyze and consider in regards to innovative sectors for sustainability, in comparison to Costa Rica's clean energy efforts. However, this paper will focus more on ecotourism as private-sector interests for growth and development.

70 O'Toole, 229

71 O'Toole, 223

72 Ana Isla, *The "Greening" of Costa Rica: Women, Peasants, Indigenous Peoples, and the Remaking of Nature* (Toronto: University of Toronto Press, 2014), 61

the state to pursue such matters. Consider Costa Rica's ability to not just focus on the transfer of capital, but rather has changed development policies to generate a balance between environmentalism and development, encouraging management and awareness strategies as priority for sustainability.[73] In the case of Brazil, assessments for environmental concerns often compete with economic goals and "tangible results", impacting decisions and priorities on how to best pursue economic growth and sustainable development.[74] Nonetheless, due to varying external demands and economic results from extractive practices, commercial development and growth have come to define social and political realms, making environmental efforts symbolic in nature to sustain market growth.

"Green Encounters"

As outlined in Agenda 21, basis for action in pursuing environmental development stems from the ability of a country and the capacity of its people and institutions, but also by its ecological and geographical conditions.[75] With these conditions, the interest of and for economic needs is essential, as the shaping of environmentalism in developing countries is in great part determined by a relationship for survival. But, it is worth considering particular areas in both countries that have been able to provide sustainable living mechanisms with environmental conservation and preservation via ecotourism pursuits. This aspect of tourism is noteworthy in the sense that it has been able to motivate and mediate between economic interests, social participation, and political support to provide adaptable measures ensuring efforts towards environmental security. Although putting nature on the market has its implications, it also helps

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[73] Marc Williams, "Aid, Sustainable Development and the Environmental Crisis," *International Journal of Peace Studies* 3, no. 2 (July 1998): accessed March 7, 2018, http://www.jstor.org/stable/41852857.,25

[74] Richard Munton and Kevin Collins, "Government Strategies for Sustainable Development," *Geography* 83, no. 4 (October 1998): accessed March 8, 2018, http://www.jstor.org/stable/40573108., 351

[75] United Nations Conference on Environment and Development. 1992. *Agenda 21, Rio Declaration, Forest Principles*. [New York]: United Nations.

emphasize the importance of sustainability for the country and in effect for international interests. This section will examine such instances on a smaller scale to understand how "green encounters" are in effect possible, and what constraints are faced based on capacity, ability, and ecological conditions.

The ecotourism industry in both countries has had different precedence on the national scale. While Costa Rica has become a leading nation in ecotourism as means to promote sustainable development, Brazil has had a gradual role, but significant importance in smaller states who have come to rely on it for economic growth and development. The case of Monte Verde in Costa Rica will be examined, as it has been recognized as a "leader in setting aside large areas of landscape for formal protection and as a pioneer ecotourism destination".[76] For Brazil, the northeastern region of Bahia will be discussed as an example of the potential integration of society and state for environmental protection and socioeconomic development. In both countries, the growing presence and possibility of nature-based tourism has seemingly influenced a positive relationship across different sectors, ultimately generating a more environmentally conscious pursuit for development and growth.

The influence of national and foreign interests has impacted the formation and inclusion of conservation efforts in Costa Rica, particularly that of Monte Verde. Although Costa Rica has been recognized as a "model" of sustainable development and ecotourism due to the support by various sectors in the country's development,[77] it is with great influence from foreign interests that Monte Verde has come to be a well-known conservation area, especially a privately

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[76] Luis A. Vivanco, *Green Encounters: Shaping and Contesting Environmentalism in Rural Costa Rica*, ed. Roy Allen, vol. 3 (Berghahn Books, 2006), x

[77] Sterling Evans, *The Green Republic: A Conservation History of Costa Rica* (Austin: University of Texas Press, 1999), 247

administered preserve.[78] In making this preserve privately managed, appeals for funds and campaigns enabled land purchases and expansion, coinciding with decrees issued by government that limited forestry and agricultural development on lands, thus facilitating its consolidation as locals sought to sell.[79] These land purchases and monetary donations from external actors to "save" Monte Verde ultimately led to the creation of the Monte Verde Cloud Forest Preserve (MCFP) in 1972,[80] administered by a non-governmental scientific and environmental organization, Tropical Science Center (TSC), and its offspring organization the Monteverde Conservation League (MCL).[81]

However, the need to "protect" depicted an unfair portrayal of rural landowners as being obstacles to nature conservation, distancing environmental sentiments amongst rural Costa Ricans as they expressed a notion of these efforts becoming a North American initiative.[82] Moreover, the spaces enclosed were now being redefined as "reservoirs of biodiversity and as spaces of touristic consumption", impacting how locals interacted with the land under a "new set of expectations and controls backed by the power of national laws and local law enforcement, if not international expectations".[83] In this sense, the geographic and ecological conditions allowed sustainable development to flourish, with institutional and economic support for conservation outcomes. But, the impact on rural communities has not always received the same support.

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[78] Luis A. Vivanco, *Green Encounters: Shaping and Contesting Environmentalism in Rural Costa Rica*, ed. Roy Allen, vol. 3 (Berghahn Books, 2006), 54; 60

[79] Vivanco, 69

[80] Vivanco, 60

[81] Evans, 26

[82] Vivanco, 75; 109. As one former landowner interviewed claimed, "Nobody should come from the outside anymore and tell us how to manage our community. We can guide it ourselves. They shouldn't impose on us. They seem to love nature more than us. What they don't understand is that we love nature too"

[83] Luis A. Vivanco, *Green Encounters: Shaping and Contesting Environmentalism in Rural Costa Rica*, ed. Roy Allen, vol. 3 (Berghahn Books, 2006), 5

With the expansion of land, and promotion of ecotourism, the town of Monte Verde has become reliant on this sector for economic possibilites,[84] fostering competitive natures amongst local residents and deepening class relations as living expenses increase in the community.[85] Additionally, communal understandings of development have increasingly catered to tourist interests, with less attention to addressing local social and environmental needs.[86] Although MCFP does generate funds and divert them towards initiatives for environmental education, sustainable projects, reforestation efforts, and local participation, the environmental narratives promoted through ecotourism encourage a particular understanding of development experienced differently locally and nationally,[87] not to mention the increasing reliance on foreign financing for these efforts.[88] While political decentralization and NGO recognition has allowed for more implementation possibilities, interests have also diverted locally when embodying the impacts of ecotourism as survival in sustainable development. More specifically, ecotourism incentives for environmental security in Monte Verde have become central to how rural Costa Ricans define themselves and how they relate and adapt to their landscapes.[89] Despite many foreign interests being the driving force behind Monte Verde's international recognition, it is local interest and capacity to preserve the environment that has ultimately allowed the country to enhance the ability of embracing environmentalism for sustainable development.

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84 Ana Isla, *The "Greening" of Costa Rica: Women, Peasants, Indigenous Peoples, and the Remaking of Nature* (Toronto: University of Toronto Press, 2014), 116

85 Vivanco, 154

86 Centro Científico Tropical Reserva Biológica a Monteverde, *Plan De Manejo De La Reserva Biológica Monteverde,* 2005,, accessed March 19, 2018, http://www.reservamonteverde.com/pdfs/plan_de_manejo_de_la_RBBNM.pdf.,93

87 Vivanco, 183

88 Eduardo Silva, "Selling Sustainable Development and Shortchanging Social Ecology in Costa Rican Forest Policy," *Latin American Politics and Society* 45, no. 3 (2003), 99

89 Luis A. Vivanco, *Green Encounters: Shaping and Contesting Environmentalism in Rural Costa Rica*, ed. Roy Allen, vol. 3 (Berghahn Books, 2006), 183

Brazil's sustainable development efforts have been met with obstacles for policy implementation based on funding capacity, and interest for enforcement, particularly when environmental conservation conflicts with resources for economic growth. However, the northeastern state of Bahia has served as an interesting example of consolidation between different sectors with attention for development and growth catered to ecotourism.

Brazil suffers from inter-regional disparities, particularly a north-south divide, as southern states are considered more developed. This aspect is worth considering as it plays into the varying interest given to sustainable development considerations and economic benefit. The region of Bahia has been one of Brazil's poorest states, known for agricultural growth and forestry industry, causing great environmental degradation over the years.[90] However, given its geographic location, with the longest seashore in Brazil, tourism became a good prospect for development, requiring greater ecological management for investment opportunities. From this, in 1991 a regional tourism development program for the Brazilian Northeast (Prodetur-NE) was established, consisting of funding and loans from the Inter-American Development Bank (IDB) as matched by state and federal governments and multinational organizations, in addition to private investments.[91] As this sector garnered potential for economic growth, political attention also started to shift. This was influenced by pressure from NGOs, which led to the creation of Environmentally Protected Areas (APAs) to preserve and mitigate environmental impacts for planned tourism projects and development.[92] Unlike Monte Verde however, the creation of APAs in Bahia for ecotourism did not require land expropriation, but rather state decrees to limit

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[90] "Reducing Inequality in the State of Bahia, Brazil," The World Bank, April 7, 2017, , accessed March 22, 2018, http://www.worldbank.org/en/results/2017/04/07/reducing-inequality-state-bahia-brazil.

[91] Jose Antonio Puppim De Oliveira, *Implementation of Environmental Policies in Developing Countries: A Case of Protected Areas and Tourism in Brazil* (Albany, NY: State University of New York Press, 2008), 59

[92] Puppim De Oliveira, 67-68

and control development.[93] And, given the prospects for economic growth with nature-based tourism, implementation efforts faced little obstacles regionally and locally. In effect, APAs became the state's guarantee to lenders and investors of the commitment to environmental management, while economic opportunities for locals. Furthermore, the management and implementation of APAs was transferred to development-oriented agencies Sectur and Conder, to further decentralize interests and capacity while focusing on tourism and environmental development.[94] This allowed both agencies to seek external funding opportunities and receive more economic resources than possible from the country's own environmental agency. However, these funds are redirected for implementation and management capacities for investment purposes.

With this in mind, local adaptations and views of APAs became economically centered as they provided alternatives to economic development. In particular, Bahia's efforts and interest to implement environmentally conscious development correlated with areas of viable tourism growth. This created resource discrepancies for rural communities, with as much as 60 percent of the region's inhabitants relying on conditional cash transfer programs.[95] From this view, environmental resources at the state's level were perceived higher by various sectors when a market value was attached.[96] However, the case of Bahia illustrates the ability and capacity of political, social, and economic interests in the country to come together for progressive efforts towards conservation in consideration with the state's biodiversity conditions.

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[93] Puppim De Oliveira, 72

[94] Puppim De Oliveira, 71

[95] "Reducing Inequality in the State of Bahia, Brazil," The World Bank, April 7, 2017, , accessed March 22, 2018, http://www.worldbank.org/en/results/2017/04/07/reducing-inequality-state-bahia-brazil.

[96] Jose Antonio Puppim De Oliveira, *Implementation of Environmental Policies in Developing Countries: A Case of Protected Areas and Tourism in Brazil* (Albany, NY: State University of New York Press, 2008), 13

In both Monte Verde and Bahia, ecotourism has served as a market-based incentive for sustainable development. Ecotourism has become a means of survival with environmental consciousness, but to the benefit of some. Although it does provide a method of consolidation between protecting biodiversity and addressing economic development and growth, a balance needs to be made between tourism and socio-environmental conditions if intended to provide long-term benefits. A distinct approach to identify between Monte Verde and Bahia is the initial interest for developing protected areas. In Monte Verde, influence for conservation was founded on external concerns, but supported by political and local willingness and recognition to the importance of environmental sustainability that then rooted tourism interest. While in Bahia, the economic benefits from nature-based tourism attracted political support for conservation and the acknowledgement of development agencies to manage these areas. The notion of environmentalism in Bahia was linked directly to economic benefits and the development of an economic sector in the state. The path for sustainable development in both communities was determined differently due to the varying takes on the need to ensure environmental security.

Where Are They Now?

Upon examining the trajectory for implementation efforts and impediments for sustainability in Costa Rica and Brazil with reference to the Brundtland Report Commission, the Rio Summit, and the Johannesburg Summit, now the 2015 Millennium Development Goals (MDG) will be briefly observed, with particular attention to Goal 7: Ensuring Environmental Sustainability. In addition, the possible trajectory for Sustainable Development Goals (SDG)

2030 will be discussed based on the most recent progress of both Costa Rica and Brazil.[97] The figures and values provided earlier for 2002 will help compare the progress made over the last decade to outline policies and measures taken for improving quality of life with environmental sustainability.[98]

The 2015 MDG 7 identified the importance of integrating principles of sustainable development into country policies to reverse the loss of environmental resources and that of biodiversity, as well as reducing the population without sustainable access to safe drinking water and basic sanitation.[99] For the first part, the trend in forest cover serves to present both countries' efforts to accede this goal. Costa Rica has suffered from great deforestation, standing at a 26 percent of forest cover in 1983, but more recently at an increasing 53 percent in 2014 due to reforestation measures and conservation management.[100] Whereas in the case of Brazil, an overall decreasing trend in forest area can be examined, standing at 65 percent in 1990 and at 59 percent in 2014.[101] In this respect, efforts for reversal of the loss of environmental resources and biodiversity are more visibly applicable in Costa Rica. However, the effect and ongoing trend of ecological footprint will be mentioned to illustrate and compare the demands and supply of nature, so to speak, and thus, the importance for conservation methods and sustainable

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97 "The Sustainable Development Agenda," United Nations Sustainable Development Goals, , accessed March 22, 2018, http://www.un.org/sustainabledevelopment/development-agenda/. The main difference between the MDG and SDG is the emphasis of the universal need for development covering economic growth, social inclusion and environmental protection applicable to all countries, whereas the former was intended for action in developing countries

98Given that most data was only available up to 2014, it will be used as the base year to maintain consistency in data comparison for both countries in this section.

99 "Goal 7: Ensure Environmental Sustainability," United Nations., accessed March 25, 2018, http://www.un.org/millenniumgoals/environ.shtml.

100 "Forest Area,", The World Bank, 2018, accessed March 23, 2018, https://data.worldbank.org/indicator/AG.LND.FRST.ZS?contextual=default&locations=BR-CR.

101 "Forest Area,", The World Bank, 2018, accessed March 23, 2018, https://data.worldbank.org/indicator/AG.LND.FRST.ZS?contextual=default&locations=BR-CR.

development implementation as key to preventative action rather than reactionary. In the case of Costa Rica, with a population of 4.75 million in 2014, maintained a bio-capacity of 1.6 global hectares (gha) per person, which represents the availability of productive area, or an "ecological income" per person, with an ecological footprint of 2.6gha, indicating the area needed to serve the demand for resources, or "ecological expenditures".[102] As such, Costa Rica suffers from a bio-capacity deficit, meaning that the country consumes more than the ecosystem can renew. In this sense, one can argue that the size of Costa Rica also creates a vulnerability for its environmental development given increasing population with limited lands that can accommodate national needs, therefore leading to an increase of imports to make up for productive areas and consumption needs. Whereas Brazil, in 2014, had a population of 206.07 million, with an "ecological income" per person at 8.9gha and an "ecological expenditure" at 3.1gha, indicating a bio-capacity reserve of 5.8gha.[103] However, bio-capacity has been decreasing over time while footprint is increasing, as well it is interesting to note that consumption is higher per person in Brazil than in Costa Rica. This measure in particular serves to indicate the necessity of preventative measures for Brazil given opposing results from population increase with productive area decrease.

The second part of Goal 7 addresses the access to safe drinking water and basic sanitation as considerate to the improvement of quality of life aligned with ensuring environmental sustainability. Taking this into account for Brazil and Costa Rica, both have met this target as both have technically halved the population without access to these resources. However, it is important to further assess the urban-rural discrepancies as they represent key sectors to be

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[102] "Footprint Explorer,", Global Footprint Network, 2018, accessed March 25, 2018, http://data.footprintnetwork.org/#/.

[103] "Footprint Explorer,", Global Footprint Network, 2018, accessed March 25, 2018, http://data.footprintnetwork.org/#/.

followed up with the SDG targets. In the case of improved water sources, Brazil has been able to increase this by about 4 percent between 2002 and 2014 standing at a total of 98 percent of the population with drinking water access. But for rural citizenry, this remains limited, most recently marked at an 89 percent total of the rural population with such access.[104] Comparatively, Costa Rica has increased by 2 percent between 2002 and 2014, standing at a 97.7 percent, but with a rural disproportion at 91 percent.[105] A similar trend follows with improved basic sanitation access, as Brazil increased from a 75.9 percent to an 82.8 percent of the population, with urban-identified population standing at an 88 percent, while rural at a low of 51.5 percent, barely passing the halve outlined by the Goal.[106] Costa Rica however, has been able to maintain a more stable and sustained access for its population, standing at 94.5 percent, with an urban rate of 95.2 percent and a rural population of 92.3 percent with access to basic sanitation.[107] These values are noteworthy because they are also reflective of various health concerns and the health resources offered by the countries. That being said, the environmental sustainability target as part of MDG was met by both Brazil and Costa Rica in concept, but more efforts need to be placed in order to satisfy the actual improvement of livelihoods and their sustainability.

As part of the SDG though, good health and well-being are sectioned off as an independent goal for sustainable development. Therefore, recent allocation of state funds and improvements from 2002 will be compared, as these have proved reflective for sustained quality of life in environmental development pursuits. The growth of GDP is also essential to consider,

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[104] ECLAC (Economic Commission for Latin American and the Caribbean): Brazil, "CEPALSTAT: Databases and Statistical Publications," United Nations ECLAC, 2018, accessed January 3, 2018, http://estadisticas.cepal.org/cepalstat/Perfil_Nacional_Social.html?pais=BRA&idioma=english.

[105] ECLAC (Economic Commission for Latin American and the Caribbean): Costa Rica, "CEPALSTAT: Databases and Statistical Publications," United Nations ECLAC, 2018, accessed January 3, 2018, http://estadisticas.cepal.org/cepalstat/Perfil_Nacional_Economico.html?pais=CRI&idioma=english.

[106] See note 104 above.

[107] See note 105 above.

as Brazil has had a substantial increase since 2002, with GDP at $2.45 trillion USD in 2014,[108] and 8.32 percent of this being allocated to the health sector, an increase of 1.19 percent since 2002.[109] Although, given the GDP this is a lot more money being funded, but one also has to consider the great rise in population (approximately 26 million), which increases the demands for health concerns and quality of care that the state can provide, particularly with growing urbanization and precarious housing.[110] Additionally, the regional economic discrepancies benefit those who can pay for private care and services while limiting provision to those who rely on the state-funded health system in less well off regions of the country.[111] Whereas in Costa Rica, a redirection of funds and incomes has been able to provide more access and provision to the universal health care offered. The GDP for the country has grown to $57 billion USD from $16.5 billion USD in 2002[112], and with this increase the health sector has been allocated 9.31 percent of GDP in 2014, a 1.08 percent increase.[113] Although a similar indicator to the increase of Brazil, one must consider the GDP growth difference as well as the population rise, which Costa Rica saw of around 670,000 people from 2002 to 2014. This has allowed for a more general constant trend that has been able to upkeep with population growth and provides resources accordingly. The efforts of both countries nonetheless can be illustrated with the decreasing infant mortality rate of 8.2 percent for Costa Rica in 2014, and an increasing life

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108 "GDP Data," The World Bank, 2018, https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=CR-BR.

109 See note 108 above.

110 Olga Khazan, "What the U.S. Can Learn From Brazil's Healthcare Mess," *The Atlantic*, May 8, 2014, , accessed March 26, 2018, https://www.theatlantic.com/health/archive/2014/05/the-struggle-for-universal-healthcare/361854/.

111 Brazil, United Nations Development Program, Secretariat of Government, *Voluntary National Review on the Sustainable Development Goals,* 2017,, accessed March 23, 2015.

112 See note 108 above.

113 ECLAC (Economic Commission for Latin American and the Caribbean): Costa Rica, "CEPALSTAT: Databases and Statistical Publications," United Nations ECLAC, 2018, accessed January 3, 2018, http://estadisticas.cepal.org/cepalstat/Perfil_Nacional_Economico.html?pais=CRI&idioma=english.

expectancy of 79.2 years on average.[114] While Brazil has had a significant decrease in infant mortality rates since 2002, from 27.7 percent to 17.4 percent in 2014, and a life expectancy at 74.2 on average.[115] That being said, access and provision to healthy living opportunities and resources in these countries requires the consistency and interest of actors locally and nationally to address growing inequalities and uneven distribution between rural and urban populations in order to continue progressive development for sustainable futures.

Alongside the growing inequalities of access to basic resources, the SDG identifies quality education and "no poverty" as foundational for sustainable livelihoods and as prospective for equality and equity of social, political, and economic opportunities. Primarily, access to education is of great importance and value conducive to developing environmental priorities for long-term growth and development, but also influenced and reliant upon poverty rates. In this sense economic growth cannot solely suffice to restore or resolve concerns for livelihoods that environmental security offers.[116] Considering this notion, the poverty rates measured are not too indicative of the realities faced by individuals and their livelihoods, but merely help generate a national census understanding. That being said, Costa Rica's poverty rates have not changed too much, but have continued to decrease, with an overall 2.5 percent change collectively in poverty and extreme poverty from 2002.[117] Brazil has substantially decreased poverty and extreme

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[114] See note 113 above.

[115] ECLAC (Economic Commission for Latin American and the Caribbean): Brazil, "CEPALSTAT: Databases and Statistical Publications," United Nations ECLAC, 2018, accessed January 3, 2018, http://estadisticas.cepal.org/cepalstat/Perfil_Nacional_Social.html?pais=BRA&idioma=english.

[116] Eduardo Silva, "Selling Sustainable Development and Shortchanging Social Ecology in Costa Rican Forest Policy," *Latin American Politics and Society* 45, no. 3 (2003), 94

[117] ECLAC (Economic Commission for Latin American and the Caribbean): Costa Rica, "CEPALSTAT: Databases and Statistical Publications," United Nations ECLAC, 2018, accessed January 3, 2018, http://estadisticas.cepal.org/cepalstat/Perfil_Nacional_Economico.html?pais=CRI&idioma=english.

poverty rates with a collective 30 percent decrease.[118] Similarly, the education sector has also seen notable changes, with government expenditure standing at 15.9 percent, a 6.33 increase, in 2013,[119] and equivalent to 5.9 percent of GDP.[120] Costa Rica's allocation saw an increase of 3.8 percent, standing at 23.11 percent, corresponding to a 6.9 percentage of GDP for 2014.[121] However, SDG implementations for these countries should further address persisting inequalities within these values to really enact sustainable development measures, not just growth rates. Considering different indicators like the Human Development Index as a potential for development, where Brazil stood at 0.754 and Costa Rica at 0.776 in 2015, and that of the Inequality-Adjusted Human Development Index as the reality of current standings, Brazil at a 0.561 and Costa Rica at 0.628, can help take a different perception on how to make sustainable development focus not only on resource and forest protection, but also on quality of life.[122] Doing so can strengthen trans-generational capacity of individuals to support and contribute to the environmental agenda, helping and influencing the ability of the nation to implement such practices.

Conclusion

From the Brundtland Commission Report in 1987 to the initiation of the Sustainable Development Goals 2030, environmental sustainability has been increasingly encouraged as a significant process of preventative efforts for long-term development and growth. More

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118 ECLAC (Economic Commission for Latin American and the Caribbean): Brazil, "CEPALSTAT: Databases and Statistical Publications," United Nations ECLAC, 2018, accessed January 3, 2018, http://estadisticas.cepal.org/cepalstat/Perfil_Nacional_Social.html?pais=BRA&idioma=english.

119 Values for 2014 were not available.

120 See note 118.

121 See note 117.

122 Human Development Reports, *United Nations Development Program,* 2015, , accessed March 26, 2018, http://hdr.undp.org/en/composite/HDI.

specifically, this process has come to greatly rely on the nation's political ability to prioritize and promote the importance of environmental values, the capacity to enforce such pursuits and encourage sustainable livelihoods, and economic interests to protect and promote a more equitable impact for development and growth. Nonetheless, a more promising implementation is "first and foremost the responsibility of governments",[123] as acknowledging the limits to growth should serve as incentive for preventative measures, rather than reactionary.

From this regard, Costa Rica's political nature and implementation structure has been able to foster democratic values and environmentalism as a balanced aspect of the nation's identity and interests for economic growth and social development. The promotion of "sustainability with and for people", as stated by current president Luis Guillermo Solís Rivera, is symbolic to the progressive and enduring approach across the nation's successive governments.[124] This has been key to enabling and ensuring local and international support for environmental security as a development priority for present and future needs. Moreover, it is worth recognizing that development and growth in this case are understood separately, and politically supported as such. Considering the socioeconomic allocations more generally encompassed by poverty, health, and education, it can be said that there is increasingly more equitable and sustained access and provision to developing healthy living environments alongside population growth. In regards to sustained economic growth, the important role of external financial aid and investments has help manage aspects of environmental sustainability. But, politically accommodating these actors with economic growth has strengthened sectors, like

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123 United Nations Conference on Environment and Development. 1992. *Agenda 21, Rio Declaration, Forest Principles*. [New York]: United Nations.

124 "President of Costa Rica Luis Guillermo Solis Rivera Calls For Sustainability With And For The People," UNESCO, September 21, 2014, accessed April 12, 2018, http://www.unesco.org/new/en/rio-20/single-view/news/president_of_costa_rica_luis_guillermo_solis_rivera_calls/.

the ecotourism industry, and served to move away from a resource-extraction based economy to a balanced projection between export of commodities and services to meet external and internal demands. However, that is not to denote the vulnerability Costa Rica may face for future concern regarding "ecological expenditure" and "income"[125] that will require the need for more imports to sustain consumption practices and needs.

Brazil presents an interesting case where cultures of development have become synonymous to determined growth via use of natural resources. However, the values attributed to its ecological wealth, so to speak, facilitate overlooking environmental policies that are considered to limit possibilities of growth.[126] This notion creates disconnects in political structures, where varying regional interests enforce sustainable policies only according to needs. As such, the national political will has focused on promptly pursuing economic growth to express development progress, often at the expense of environmental security. Considering the significant population increase, the state's response to address poverty rates has resulted in an increase of consumption capacities. However, what is not recognized is the lasting impressions of poverty accrued by lack of sustainable living environments including access and provisions to basic human needs and services. More so, this notion dissociates the need to prioritize environmental concerns, as values for environmentalism are likened with economic returns to sustain short-term growth and consumption practices.[127] Similarly, external forces, interests, and

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[125] See note 102 above.

[126] Liz-Rejane Issberner and Philippe Léna, eds., *Brazil in the Anthropocene: Conflicts Between Predatory Development and Environmental Policies* (New York, NY: Routledge, 2017), 23

[127] Ernesto Londoño, "Brazil Wavers on Environment, and Earth's Largest Wetland Starts to Wither," *The New York Times*, December 23, 2017, accessed April 12, 2018, https://www.nytimes.com/2017/12/23/world/americas/brazil-pantanal-wetlands-michel-temer.html. Recently, a farm owner in the area of Pantanal, who makes a living by raising cattle, planting rice and soya, and hosting tourists, has expressed that imposing environmental regulations in the region would rather do more harm than good, stating, "Thank God we have China buying our products".

demands have continued to strengthen the reliance on export of commodities and use of Brazil's ecosystem with political backing. More recently, president Michel Temer was accused of reverting environmental protections by cutting budgets of enforcement agencies and supporting a "powerful agricultural lobby, which is pressing for cuts in Amazon protection",[128] to which president Temer refers to as "essential engines of economic growth".[129] Although economic incentives can sometimes contribute to consolidating political differences, as seen in Bahia, more explicit political inclination and practices to sustain economic interests have weakened the ability and capacity to ensure that sustainable development measures are considerate of long-term needs and meaningful returns.

This analysis has tried to examine how the influence of environmental security and values of sustainability outlined in international accords have impacted the development of Costa Rica and Brazil, keeping in mind international and local demands. Respectively, each has illustrated different political abilities, capacities, and agendas for pursuing such development and growth, particularly as a progressive concern. Therefore, political will to enact these stances and values has become a significant factor for ensuring consistent pursuit and promotion of environmental sustainability.[130]

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[128] Damian Carrington, "Norway Issues $1bn Threat to Brazil over Rising Amazon Destruction," *The Guardian*, June 22, 2017, accessed April 12, 2018, https://www.theguardian.com/environment/2017/jun/22/norway-issues-1bn-threat-brazil-rising-amazon-destruction.

[129] See note 127 above.

[130] United Nations, *Report of the World Commission on Environment and Development: Our Common Future*, accessed January 16, 2018, http://www.un-documents.net/our-common-future.pdf.

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