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Life in "Paradise" a social psychological and anthropological study of nature conservation in the Caribbean Netherlands

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Introduction.



More and more attention is being paid to calls to “save our planet” on a global level, and this call to action is also evident on Bonaire, Saba, and Sint Eustatius, also known as the Caribbean Netherlands. Like the rest of the Caribbean, these three islands are being confronted with changing weather patterns, leading to extensive periods of drought, more intense storms, and rising sea temperatures which affect the coral reefs. Lack of facilities and infrastructure coupled with the large number of goods that must be imported create undesirable pollution and excess waste. Not only does the deterioration of the local environment have negative consequences for the biodiversity and the health of the population, it also has major economic consequences (Debrot et al, 2017; Nature Policy Plan CN 2020).

It is clear, then, that there are pressing ecological problems that need to be dealt with. Some of these problems are not new and are present on all three islands; for example the presence of invasive species and the exploitation of resources. More recent challenges, such as the consequences of extreme weather conditions and, especially, hurricanes are particularly evident on Saba and Sint Eustatius, as the destruction wrought by Hurricanes Irma and Maria in 2017 illustrates. On Bonaire, the rapidly growing population, the lure of mass tourism, and the specter of rising sea levels pose the major threat (Debrot et al, 2017).

In addition, the islands are also dealing with some paradoxical ecological challenges related to population growth and tourism (Debrot et al, 2017). On the one hand, the tourism industry as it is, in particular the mass tourism industry, places immense pressure on local ecosystems which can lead to additional environmental degradation. This is, among other things, due to unsustainable coastal development and the mass production of waste and wastewater. The paradox is that tourism to the Caribbean is promoted by extolling the islands’ pristine environment. This natural beauty makes the region an ideal place to visit on the one hand, while the same sector, if not managed properly, on the other hand, will lead to the destruction of these same environments.

The vulnerability of islands to environmental degradation and the effects of climate change necessitates policies to protect the environment in the Caribbean (Barker, Dodman & McGregor, 2009). As environmental degradation is a collective problem, it needs collective solutions, which in turn demands the participation of actors on all levels of society. While a growing number of people are getting involved in environmental conservation efforts, getting the masses to participate in environmental action remains a challenge. These challenges are rooted in historical, individual, societal, and contextual factors. This dissertation examines the efforts and motives of conservation actors on Bonaire, Saba, and Sint Eustatius, and situates these actors within the larger context of the Caribbean Netherlands. I wanted to know why some people engage in what I broadly define as conservation activities and why some do not. I was curious about the complex factors that underlie their decision making. To get at these issues, I focused on residents of the Caribbean Netherlands who do make an effort to protect local environments

from further deterioration. This research combines insights and approaches from environmental psychology, anthropology, and Caribbean studies, to investigate how and why residents engage in conservation actions.

For several reasons, the Caribbean Netherlands is an interesting context from which to examine the collective efforts being made to protect the environment. First, the three islands became so-called “special municipalities of the Netherlands” on 10/10/10, which resulted in a host of societal, legislative, and cultural changes on the islands. These reforms to the governance structure of the islands, in turn, accentuated contestations about the relationship and history the islands share with the Netherlands and prompted debates on identity and belonging (Oostindie & Klinkers, 2012; Veenendaal & Oostindie, 2018). Second, the three islands are all small in terms of geographical scale, spatial position, and population, which has implications for the development and management of the islands’ environments (Baldacchino, 2014; Ratter, 2018; Veenendaal, 2017a). The intersection of governmental and administrative structures, the (post)colonial histories, and the size and insularity of these space, I posit, create a unique set of circumstances that influence the choices people make about how, where, and why (or why not) they engage in conservation activities. Though these circumstances are, by their very nature, unique to the Caribbean Netherlands, I suggest that we can extrapolate from what my research shows and learn something about nature conservation decision-making in other contexts.

Specifically, my research tackles a previously largely understudied issue at the juncture of anthropology, environmental psychology, and Caribbean Studies: how belonging is understood and manifested in conservation activities. As I will describe at greater length, below, I look at what it means to belong in these small spaces and how (perceived) feelings of belonging – or lack thereof – play into how and why people chose to engage in conservation activities. My research focused on activities that were public such as participating in a clean-up day. Because of the visibility of these pro-environmental actions, other people, I hypothesized, might respond more strongly – both positively and negatively – to these actions compared to, for example, more private behaviors such as a person using eco-friendly cleaning products in their household. This makes it more likely that these forms of pro-environmental behavior are, as I posit, indeed affected by the social, political, and geographical realities of the Caribbean Netherlands. As Lapinski and Rimal (2005) reason, “the influence of perceived norms is likely to be greater in the presence of referent others than when alone, or when people perceive those others will have access to information about their behaviour” (p. 141). Therefore, I argue that these public behaviors are particularly suited to investigate the impact of broader societal changes and developments.

An abiding tension at play in my research was that, despite the positive connotation of conservation behaviour, protecting the natural environment is not necessarily the norm

on the islands, and might even go against the ways in which people usually behave (e.g., Alisat & Riemer, 2015; Byrka, Kaiser & Olko, 2017). Therefore, engaging in a conservation action might engender reputational damage or other forms of social censure. Hence, it is of importance to also consider a variety of behaviours that fall under the umbrella of “pro-environmental”. Some conservation actions might be more in line with local community norms than other behaviors, and these norms can and, as I show, do have an impact on how, why, and who engages in them. For example, not all members of the community might appreciate protesting against coastal development projects that are harmful for the environment but beneficial for the economic development of an island.

To explain the conservation actions observed on the three islands from an environmental psychological perspective, the current dissertation focuses on several of the more indirect social-contextual forces. Namely, reputational concerns; i.e. what will people think of me if I do (not) join? (e.g. Kitchell, Kempton, Holland & Tesch 2000; Niemiec, Willer & Brewer, 2019); place and community attachment, which is defined as, “(positively) experienced bonds . . . that are developed over time from the behavioral, affective and cognitive ties between individuals and/or groups and their socio-physical environment” (Brown & Perkins, 1992, p. 284); feelings of psychological ownership, understood as, “a feeling of possessiveness or being psychologically tied to an (material or immaterial) object to the extent that the possession becomes part of one’s identity” (Pierce, Kostova & Dirks, 2001); and social norms – unwritten rules about how to behave. They also take into account Jossy’s observations, described in the Prologue, namely that insiders’ and outsiders’ efforts to protect the environment are sometimes ridiculed by locals.

Capacity, knowledge, felt importance of the cause, or urgency of the problem are not the sole determinants for participation in conservation behavior. It is also, and arguably in the current contexts more importantly, determined by the social relationships between groups and peoples and their shared histories. To understand the tensions between groups and individuals regarding their participation in environmental conservation efforts, understanding the underlying, historic relationships between groups or individuals is fundamental.

1.1 DEFINITIONS AND DISCIPLINES

The major threats to the environment such as global warming, ozone layer destruction, exhaustion of fisheries and agricultural land, and widespread exposure to toxic chemicals are caused by human behavior, particularly overconsumption and overpopulation (Argyou, 2005; Oskamp, 2000; Steg & Vlek, 2009). Hence, addressing environmental problems is not just a technical problem, but equally a social one that requires changing perceptions, attitudes, and behavior. The social sciences, therefore, play a crucial role in helping reverse the damage caused by human behavior.

1.1.1 Environmental Psychology

It is from this realization about the role of the social sciences in affecting human behavior that the discipline of environmental psychology emerged in the late 1960s, largely in response to the rapid changes in, and the declining health of, the natural environment (Gifford, 2014; Kollmuss & Agyeman, 2002; Wohlwill, 1970). Environmental psychology focuses on understanding how people – as individuals and as part of groups – experience, interact with, shape, and are shaped by the natural and built environment. Environmental psychology helps to identify the differences between people who engage in pro-environmental behavior and those who do not (Gifford, 2014). Knowledge about human-environment interactions can influence policies that help promote sustainable behavior and create more livable and green built environments (Bell, Greene, Fisher & Baum, 1996; Environmental Psychology Enhancing Our World, 2017; Oskamp, 2000).

Environmental psychologists have identified many factors that determine people's commitment to protect the natural environment – including intrinsic, economic, political, health or well-being, and social reasons (for an overview see Bamberg & Möser, 2007; Gifford & Nilsson, 2014; Kollmuss & Agyeman, 2002). Increasingly, studies have demonstrated the importance and relevance of social-contextual forces that are somewhat indirectly related to the environment, such as religion, norms, social class, and cultural differences for understanding and explaining environmental behavior (Gifford & Nilsson, 2014). These factors can simultaneously represent motives for, as well as barriers to, pro-environmental behavior – factors that are not directly related to the inherent (ecological) need to protect or conserve the natural environment.

Pro-environmental Behaviors

As the purpose of this dissertation is to gain a better understanding of the interplay of factors that influence why people make the choices they do in terms of engaging in conservation activities, it is necessary to define this behavior and these actions that I am researching. Kollmuss & Agyeman (2002, p. 240) define **pro-environmental behavior** as “behavior that consciously seeks to minimize the negative impact of one's actions on the natural and built world”. This includes a large range of actions (conscious activities people partake in), including: reduced consumption of meat; recycling; reduced energy use; and separating waste; but also includes active involvement in environmental organizations and demonstrations, and things like petitioning lawmakers on environmental issues.

Another commonly used term used to refer to this type of behavior is **environmentalism**. Environmentalism can refer both to a perspective or study as well as human behavior or actions. Milton (1996, p. 36) provided a definition for environmentalism which is widely adopted by anthropologists, namely “any concern to protect the environment which implies a human responsibility”. Like pro-environmental behavior, this too is an all-encompassing definition which includes many types of actions. Similar to the central belief of environmental psychology, it suggests that people are the cause of

environmental problems and can and should, therefore, also be part of the solution. Because both environmentalism and pro-environmental behavior are such broad terms, it is important to further specify types of actions that the actors on which I center this dissertation take part in.

There are many ways in which pro-environmental actions can be classified and categorized. One way to classify pro-environmental actions is by considering the desired outcome or goal. Here a distinction can, for example, be made between:

- Conservation;
- Preservation;
- Restoration; and
- Animal welfare.

According to the International Union for Conservation of Nature (IUCN) **conservation** is defined as, “The protection, care, management and maintenance of ecosystems, habitats, wildlife species and populations, within or outside of their natural environments, in order to safeguard the natural conditions for their long-term permanence” (IUCN). According to this definition, conservation is less rigid compared to **preservation** of nature, which refers to actions that protect the natural environment from human activities or use. This often entails that the natural environment be protected from all human use and remains untouched by humans (Passmore, 1974). In contrast, **restoration** implies repairing damaged or disturbed ecosystems through to human intervention. Thus, restoration focuses on reversing degradation whereas conservation and preservation address the prevention of such losses from occurring altogether .

Another form of behavior that could belong to this list of types of pro-environmental behavior is **animal welfare**, though there is some debate about its inclusion. Animal welfare is focused on the protection of animals and wildlife and is particularly concerned with the lives and well-being of mostly sentient animals (non-humans) (Rawless, 2003; Campbell, 2018). Advocates for animal welfare and environmental advocates such as conservationists share a common concern for non-humans. However, the basic premise of animal welfare activists and environmentalists differs greatly. From the perspective of environmentalists (i.e., those working for conservation, preservation, and/or restoration) the key is that one species must not cause damage to other species, as their overall concern is maintaining the balance of ecosystems. Advocates of animal welfare, in contrast, place the lives and well-being of animals central – a placement which can, at times, conflict with the overall balance within an ecosystem (Rawless, 2003). This desire for a balanced ecosystem is the justification used by environmentalists to exterminate individual animals. This justification and the resulting death of specific animals goes directly against the moral principle of animal welfare advocates.

A second commonly made classification of pro-environmental behavior lies in the **type of environmental issues** people focus on. A distinction is made between:

- Green environmental concerns: and
- Brown (or grey) environmental concerns.

Green environmental concerns or issues place the focus on wildlife, biodiversity, and ecosystem health and tend to have a more delayed agenda with future generations in mind (Jaffe, 2006). In contrast, **brown environmental** concerns have a more people-oriented approach. Brown environmentalism stresses the right of people to a clean and healthy environment and is more likely to focus on issues such as waste management and pollution. The problems tackled are local, more immediate, and disproportionately affect (the health of) the poor, such as waste, energy, and pollution (Jaffe, 2006).

Lastly, a distinction can be based on where and how a behavior is enacted. Stern (2000), for example, distinguishes several forms of pro-environmental behavior with each form having different determining causal factors. Table 1 presents an overview of the categorization made by Stern including several examples of actions that fall under each category. This distinction or classification can be applied to all forms of environmental preservation, restoration, and conservation behavior. Like conservation, preservation, restoration, and animal welfare, each of these types of pro-environmental behavior carries a unique set of underlying reasons or motives for engagement (Stern, 2000).

Table 1. Overview of categorization of environmentally significant behavior by Stern (2000)

	Definition / specification
Environmental activism	Active involvement in environmental organizations and demonstrations. Based in social movement literature. People are aware of their environmental concern.
Nonactivist behavior in the public sphere	Support from nonactivists of movement objectives. Includes environmental citizenship (e.g., petitioning on environmental issues, joining and contributing to environmental organizations) and support or acceptance of public policies (e.g., willingness to pay higher taxes for environmental protection). People are aware of their environmental concern.
Private sphere environmentalism	The purchase of major household goods and services that are environmentally friendly, the use and maintenance of environmentally non-damaging goods, household waste disposal, and “green” consumerism.
Other environmentally significant behavior	Influencing the actions of organizations to which a person belongs.

These different forms of pro-environmental behavior need to be distinguished as they are partially triggered by the underlying values that direct policy and form the background to possible dilemmas and disagreements among affected or involved individuals. Different points of departure are attached to the actions because they affect the perception and responses of various community members to these actions in disparate ways. In other

words, the different values underlying the forms of pro-environmental behavior can lead to conflict and dilemmas and thus affect the choice of individuals to get involved or not.

Green & brown environmental concerns	
Behavioural focus	Pro-environmental actions in conservation/preservation, restoration or animal welfare
Public sphere Individual and/or collective	- Protest or rally - Petition - Organize event
Private sphere Individual and/or collective	- Educate - Support - Inform - Boycott - Volunteer - Enforce

Figure 3. Overview over the different ways in which environmental behavior can be categorized

Figure 3 provides a summary of the different ways in which pro-environmental behavior can be categorized. In this dissertation, the behavioral distinction between forms of pro-environmental behavior is of greatest importance. Specifically, the focus lies on both *environmental activism* and *nonactivists' pro-environmental behavior in the public sphere*. Examples in the Caribbean Netherlands include participating in clean up events and the restoration of coral reefs, protection of endangered species such as sea turtles, iguanas, parrots, and sharks, combatting invasive species, reforestation attempts, maintenance of nature hiking trails, and promoting or campaigning for increased recycling or (plastic) waste reduction. The focus lies predominantly on conservation and restoration activities. In addition to these actions, however, I also considered some cases that were closer on the spectrum to animal welfare. This was only done when the respective informants argued that their efforts to care for animals are beneficial to the environment as well. For example, fewer roaming cats and dogs prevent the killing of birds and other small animals such as lizards which are of importance to the ecosystem/biodiversity. A similar case was made by actors advocating for the protection of donkeys, a major issue on the island of Bonaire. Namely, actors argued that in addition to their cultural value, the roaming donkeys are of importance for spreading seeds on the island. While it is heavily debated if donkeys really do spread seeds and most (if not all) environmental scientists dispute or dismiss this argument because it is not likely that this benefit outweighs the overgrazing damage caused by the roaming donkeys, the fact remains that these actors argue that their efforts include environmental considerations. Moreover, whatever the

scientists say, the actors themselves viewed their actions on behalf of the donkeys as being part of their conservation and restoration activities. Therefore, I chose to include these activities in the overarching study.

Conservation Actors and Actions

From here on out, I will refer to the behavior I examined in this research as *conservation actions* because this formulation captures the focus on protecting the environment and the active and visible nature of the behavior. In addition, I refer to *conservation actors* as the group of individuals who are the focus of this research. They represent non-government organizations, government departments, as well as individuals who are not directly affiliated with any (environmental) organization. They have in common that they make an effort to partake in projects directed towards the protection of the natural environment of the islands in a way that is clearly visible to the broader community of the islands.

1.1.2 Research Landscape

While interdisciplinary research is stimulated within and between the fields of the humanities and the social sciences, the research done over the past decades on the former Netherlands Antilles has remained highly compartmentalized. This dissertation attempts to overcome this fragmentation by bringing together research questions and strategies as well as expertise and informants from a range of disciplines within the humanities and social sciences. Governance (Clegg, Pantojas García, 2009; Nauta, 2011; Roitman & Veenendaal, 2016), sovereignty (Grenade, 2008; Veenendaal & Oostindie 2018;), culture (Hall, 2001; Römer, 1977) and identity (Allen, 2010; Hall, 2001; Razak, 1998) have all been examined by different scholars in the (Dutch) Caribbean, but these topics in specific relation to environmental issues have received less attention, particularly in the three smallest islands that were part of the former Netherlands Antilles. Therefore, this dissertation contributes to a better understanding of nature conservation in the Caribbean Netherlands contextualized within contemporary issues facing the islands and keeping in mind the complicated social dynamics at play in these small-scale, (post-) colonial communities.

Originally, this research focused not only on understanding the motives behind individuals' actions to protect the natural environment, but, equally, their preservation of the cultural heritage of the three islands. During the project the focus shifted to solely the conservation of the natural environment. Nevertheless, the ways in which individuals relate to the natural environment is culturally patterned (Milfont & Schultz, 2016). Culture, and, hence, ideas about nature, are socially constructed, which has implications for understanding environmental actions and management (Castree & Braun, 1998; Brosius, 1999; Cronon, 1995; Milton, 1996). Therefore, the role of culture

in influencing conservation behavior remained central throughout the research in two prominent ways.³

First, from the perspective of psychology, the cultural background of individuals and the norms, values, and beliefs originating from their cultural background are looked at in relationship to each other. Environmental psychologists have studied the fundamental role of culture in prescribing the relationship between individuals and the natural environment (for an overview see Kashima & Margetts, 2014; Milfont, 2012). Psychological factors – such as levels of concern, psychological distance from the problem, values, and norms and emotions – are culturally defined and shape beliefs about how nature works, how individuals interact with nature, and affect the extent to which individuals perceive and act to solve environmental problems (Milfont & Schultz, 2016). Cultural differences in perceptions and attitudes can lead to misunderstandings and conflict regarding the management of natural resources (Head, Trigger & Mulcock, 2005). Thus, I had to address the cultural perspectives through which people frame their interaction with the environment (Milton, 2003; 1996).

Although scholars acknowledge the importance of considering culture when examining human-environment interactions (Milfont & Schutlz, 2016), the work of environmental psychologists investigating cultural differences remains somewhat superficial. That is because scholars have tended to generalize the cultural differences in the concepts considered in their analysis – such as “Western versus Eastern” or “individualistic versus collectivistic” cultural differences. Consequently, they do not question the origin of cultural differences. Hence, the approach of “generalizing” culture and thus cultural differences in such broad ways ends up limiting the extent to which culture is taken into account when explaining something like pro-environmental behavior. This is particularly problematic in the Caribbean context, where the “common” understanding of culture is thoroughly creolized and so-called traditional boundaries when defining cultural groups (e.g., “Western” versus “Eastern”) become irrelevant. Specifically, Caribbean creole cultures are a mixture of “Western” and “Non-Western” cultures, containing elements with European, American, Latin, African, and Asian origins. Moreover, these cultures mix and merge in the Caribbean which makes the determination of whether a person falls under either one or the other near impossible.

As Uzzell and Rathzel (2009) argue in their plea for a transformative environmental psychology, “our perceptions, attitudes and actions are not formulated in an instance but have history. Capturing that history, that is the time dimension of people’s lives through their life histories, is another way of understanding where they are now” (p. 348). Thus, to understand the tensions between groups regarding environmental

3 In this dissertation I employ the broad definition of culture provided by UNESCO, namely that culture “... is that complex whole which includes knowledge, beliefs, arts, morals, laws, customs, and any other capabilities and habits acquired by [a human] as a member of society” (Tylor, 2010).

conservation, it is of fundamental importance to find out who participates and why, through an understanding of the underlying historic relationships between groups or individuals. This brings me to the second way in which culture is integrated in this research. In the Caribbean, it is of particular importance to consider historic events that shaped local culture when examining how individuals perceive and act to solve environmental problems.

This is because there is no other place in the world that has been shaped by its colonial history as much as the Caribbean and every social and cultural trait exists in relationship to colonialism (Trouillot, 1992). Rabess (1998) described the Caribbean as “an artificially created society made to fit the design of colonial expansionism and economic imperatives. It is still in the process of decolonialization, identity formation or consolidation” (p. 453). Similarly, Jaffe, de Bruijne & Schalkwijk (2008, p. 1) pointed out that “Global flows and colonial powers that shaped the Caribbean in the past are continued in the form of present-day dependencies”. Consequently, just like it is not possible to categorize Caribbean culture as either “Western” or “Non-Western”, the distinction between global versus local processes is not clear-cut in the Caribbean due to its history. Specifically, the Caribbean region and societies are a creation of globalization and migration (Slocum & Thomas, 2003). In contrast to environmental anthropologists (Barton, 2002; Grove 1997; Jaffe, 2016; Murphey, 2009), and archaeologists (Wallman, Wells & Rivera-Collazo, 2018), environmental psychologists have not taken into account the environmental legacies of colonialism, particularly the long-term socioecological and psychological consequences of human interactions with the environment during the colonial era that continue to shape modern social and environmental challenges. Yet the specific history that shaped the culture of the three islands I examine in this research is essential in explaining why certain people are more engaged in environmental actions than other as well as the different ways in which the various efforts to protect the environment are received by the community.

Situated in social history, cultural and environmental anthropology, public administration, and environmental science, this research aims to create a broader, less compartmentalized, picture and will also address societal concerns. Because of its multidisciplinary and multi-method character, this dissertation produces information that I hope will be useful in engaging more people in environmental conservation in the (Dutch) Caribbean. In other words, this research aims to contribute new insights and practical recommendations to the debate on how to act upon or even solve some of the urgent environmental challenges while also remaining sensitive to (post-)colonial realities.

1.2 RESEARCH AREA: BONAIRE, SABA, AND SINT EUSTATIUS

The setting in which this study takes place are three non-sovereign, small-scale Dutch Caribbean islands: Bonaire, Sint Eustatius, and Saba, also referred to as the Caribbean Netherlands. Prior to the European colonization, the three islands were inhabited by Arawak and Carib indigenous groups (Amerindians) who were almost entirely exterminated with the arrival of the Spanish in the early 16th century. In the 1630s, the Netherlands gained colonial rule over Aruba, Bonaire, and Curaçao (ABC-islands) located off the coast of Venezuela, and Saba, Sint Maarten, and Sint Eustatius (SSS-islands) located in the northern arc of the Leeward Lesser Antilles, over 800 km north of the ABC islands. Curaçao and Sint Eustatius were developed as maritime economies, dependent on the forced immigration of enslaved Africans along with the settlement of some Europeans. Slavery was only abolished in 1863.

The islands were ruled in several colonial configurations, first under the First and Second Dutch West India Companies, later under the Kingdom of the Netherlands. After the tumultuous Napoleonic period in which territories in the Caribbean changed hands several times, a Dutch Colonial governance structure was set up in which administration was based on Curaçao. In fact, after 1815, the islands became known as “Curaçao and Dependencies” (1815-1828) with Curaçao governing Bonaire and Aruba. Sint Eustatius was also briefly in charge of Saba and Sint Maarten under the short-lived construction of “St. Eustatius and Dependencies” (1815-1828). In an effort to save money, in 1828 all the colonies, including Suriname, were merged into a single West Indies colony ruled from Paramaribo, in Suriname. This move was reversed in 1845, when the islands reverted to being governed from Curaçao, and Suriname remained separate. One of the legacies of this series of administrative arrangements was that there was often ill will between the islands themselves, as well as between the islands and Suriname and/or the European Netherlands. The other islands resented governance from Curaçao, which, especially for Saba, Sint Maarten, and Sint Eustatius, was nearly 800 kilometers away and conducted in Dutch rather than English. (Creole) English is and since the 18th century has been the language spoken by the people of the Leeward Islands, including Saba, Sint Maarten, and Sint Eustatius.

Despite the challenges inherent to this governance structure, it lasted until 1954. In that year, the political structure of the Kingdom of the Netherlands was newly defined and theoretically decolonized in the Charter (or *Statuut*) for the Kingdom of the Netherlands. The Kingdom comprised three nominally autonomous countries, namely the Netherlands, Suriname, and the six Caribbean islands of the so-called Netherlands Antilles. Ostensibly, this arrangement lasted until 2010. In reality, the situation became even more complex as the decades went on. In 1975, Suriname seceded from the Kingdom and became an independent republic. Membership of the Kingdom changed

once more when Aruba, after decades of struggle to separate itself from the six-island entity and, particularly, the perceived historical domination by Curaçao, became a separate autonomous country within the Kingdom in 1986. Over the following years, Sint Maarten too became increasingly dissatisfied with its perceived subordinate place in the Netherland Antilles, particularly the fact that the central governance was administered from Curaçao, again a long-standing historical gripe within the Dutch Caribbean (Oostindie & Klinkers, 2012; Veenendaal, 2016b).



Figure 4. Downtown Kralendijk, Bonaire. Dutch influences are clearly visible in the facades of the buildings.

This led to so-called “status referendums” in the first years of the new millennium in which residents could vote on what the actual administrative status of their island would be. These referenda ultimately led to the full dissolution of the Netherlands Antilles. Except for Sint Eustatius, all of the remaining islands desired a new position within the Kingdom of the Netherlands. At the end of a long round of negotiations, Curaçao and Sint Maarten became autonomous countries within the Kingdom, just like Aruba

and the Netherlands. Bonaire, Sint Eustatius, and Saba were given the status of “public entities”⁴, a sort of overseas municipality of the Netherlands. This meant that three islands were constitutionally integrated into the European Netherlands and are now known as the Caribbean Netherlands.⁵ In effect, this means that they operate, in theory at least, like any other Dutch village or town. In the overseas municipalities, the former legislation of the Netherlands Antilles gradually got replaced with Dutch legislation, the American dollar replaced the Antillean guilder, and the Dutch government gained executive power over the most important policy areas. These policy areas included the natural environment, for which the Dutch Ministry of Agriculture, Nature, and Food Quality now has final responsibility. The local government of the islands was rearranged according to the governance model of Dutch municipalities. The Dutch government is represented on the islands through a shared service organization called the *Rijksdienst Caribisch Nederland* (Royal Dutch Caribbean Service, *RCN*), with headquarters on Bonaire, with the idea being that the Dutch ministries collaborate with one another within this umbrella ministry. A representative of the Kingdom (*Rijksvertegenwoordiger*) acts as the linch pin between the public entities and the Dutch government in The Hague and is responsible, inter alia, for ensuring good governance in the Caribbean Netherlands (Oostindie & Klinkers, 2012; Veenendaal, 2017b).

4 In Dutch, “*openbaar lichaam*”.

5 See Oostindie & Klinkers (2012) for an in-depth history of the events leading up to the dismantlement of the Netherlands Antilles.



Figure 5. Bonaire, Saba, and Sint Eustatius in the Caribbean region. Source: Wikimedia Commons.

Although the three islands share a Dutch colonial history and their current political status, they have quite different cultural, economic, geographic, and demographic profiles. In terms of population and territorial size, Saba (population circa 1,900 anno 2019; land area: 13 km²), Sint Eustatius (population circa 3,000 anno 2019; 21 km²), and Bonaire (circa 20,000 anno 2019; 288 km²) are the smallest of the six Dutch Caribbean islands, but Bonaire dwarves the two others. All are situated in the Caribbean Sea. Saba and Sint Eustatius are about 810 kilometers north of Bonaire, which lies 90 kilometers off the coast of Venezuela. Sint Eustatius and Saba belong to the Dutch Windward Islands (Leeward or Lesser Antilles), along with Sint Maarten (See Figure 5). In contrast to the islands of Curaçao, Bonaire, and Aruba, hurricanes regularly hit the Lesser Antilles creating additional environmental pressures. Another very important difference is linguistic, as was mentioned above. Historically, (creole) English is the language spoken on Sint Eustatius and Saba, just like on the rest of the Leeward islands. This linguistic affinity, as well as the close geographic proximity of the other islands in the chain, have meant that they often have more in common with, and feel closer kinship with, people on neighboring islands such as St. Kitts (British) or St. Barts (originally Swedish, now French) than they did with the Netherlands (Mulich 2020; Roitman 2016, 2019) where

colonial rule was distant and exerted in a language many on the islands did not speak. Likewise, on Bonaire, Papiamentu is the primary language spoken, and as I explore at greater length in Chapters 5 and 6, many people have only an imperfect grasp of the Dutch language, as well as little feeling of identification as “Dutch”.

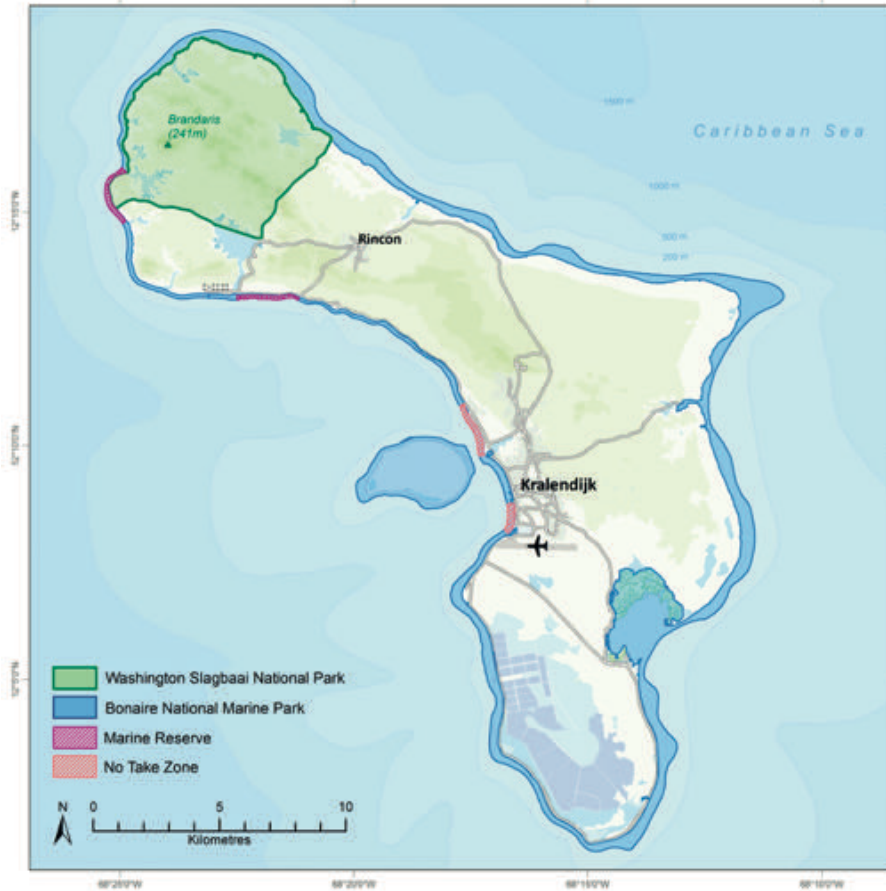


Figure 6. Map of Bonaire. Source: DCNA.

These large distances shaped the geographical and cultural differences between the islands. Some of the most striking differences are the languages spoken and physical appearance of the islands. Bonaire (Figure 6) is comprised of a core of old igneous and sedimentary rock (coral limestone) which was formed by underwater eruptions over a hundred million years ago.



Figure 7. Bonaire's pink Salt flats. Source: Kenny Ranking.

These geological processes created an island with a hilly landscape (with the highest point of 241m called “Brandaris”) in the northwest, a terraced landscape in the middle and a rather low and flat saltpan in the south (Westerman, 1949). Having one of the most beautiful reefs in the Caribbean, diving – and tourism in general – is the most important pillar for the economy of Bonaire.

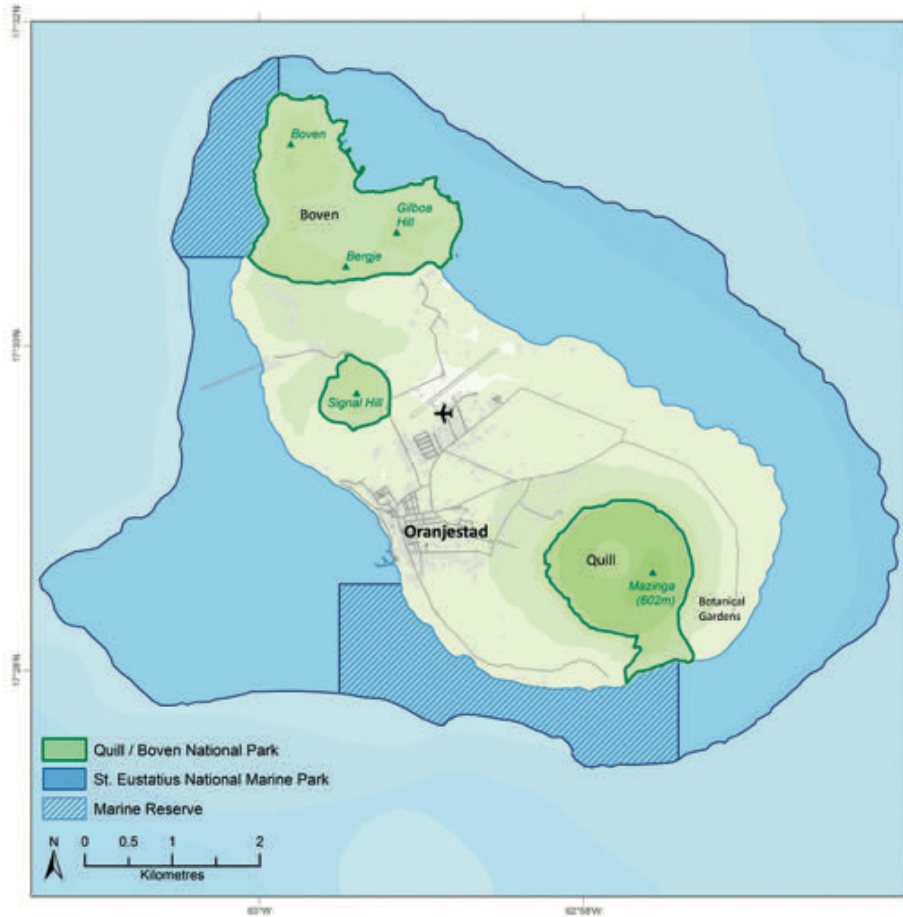


Figure 8. Map of Sint Eustatius. Source: DCNA.

Sint Eustatius (Figure 8) is a volcanic island and features two very different landscapes, as well as black sandy beaches instead of the typical Caribbean white ones. The southeast end of the island is dominated by a 600 meters high dormant volcano, the Quill, full of dense forests and clouds that bring rainforest conditions, while the lower northern hills that formed from an eroded extinct volcano have a savannah-like vegetation and fauna (Westerman, 1949).



Figure 9. Historical building in Oranjestad, St. Eustatius.

The island's only town, Oranjestad, is built near a famous historical harbor that once made Sint Eustatius a thriving center for trade in the Caribbean (Figure 9). The storage of oil products (for the company Nustar) on the island makes it one of the largest facilities in the Caribbean region, as well as of the Netherlands in terms of transit. Besides Nustar, few other economic activities take place on the island and the government is the island's largest employer. However, tourism is an up-and-coming sector.

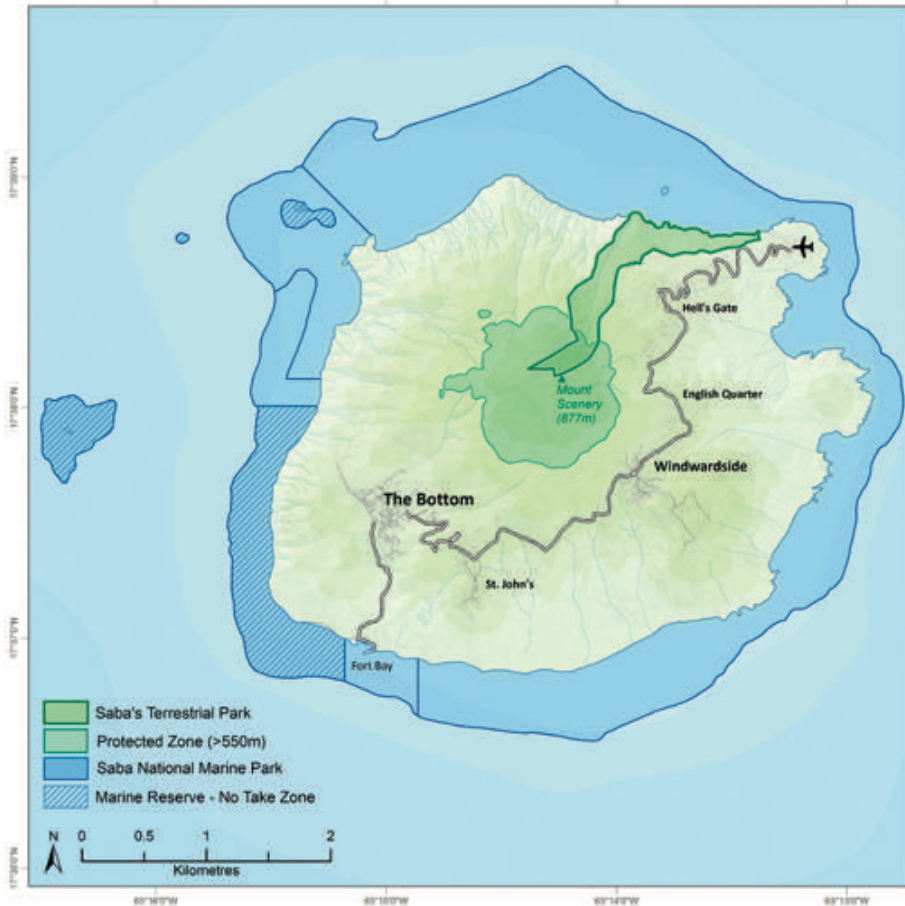


Figure 10. Map of Saba. Source: DCNA.

Lastly, Saba (Figure 10) is the peak of a 500,000-years old inactive volcanic cone. The island's highest point is the 877 meters-high Mount Scenery (Figure 11), which also holds the title of highest peak in the Kingdom of the Netherlands. Guarded by steep cliffs on all sides, Saba has no permanent natural beaches and only one landing point. Much of the island is covered with lush rainforest that harbors an abundance and diversity of nature (Westerman, 1949; Rojer, 1997). During colonial rule, Saba was of little to no economic relevance to the Netherlands due to its inaccessible and rugged environment. Besides tourism, the American Saba University School of Medicine, fisheries, and agriculture, there are very few business activities on the island.



Figure 11. The Level on Saba - all houses and buildings are white, with green trimmings and red roofs and Mt. Scenery in the background.

The cultural differences are not only due to the geographical differences and distances between the islands, but also to the diverse populations residing on the islands. There are over 50 nationalities residing in the Caribbean Netherlands, but the composition of the population differs on each island (see Tables 2 and 3).

Table 2. Country of birth inhabitants, 1 January 2017 (CBS, 2017).

	Former Netherlands Antilles and Aruba	European Netherlands	US and Canada	South and Central America	Other
Bonaire	60 %	16 %	2 %	20 %	5 %
Saba	46 %	6 %	15 %	21 %	21 %
Sint Eustatius	55 %	6 %	3 %	30 %	6 %

In addition to (Dutch Caribbean) locals, on Bonaire a substantial percentage of residents are natives of the European Netherlands, which is not the case on Saba and Sint Eustatius. Saba holds the largest percentage of US and Canadian residents of the three islands, whereas Sint Eustatius houses the largest percentage of South and Central Americans (CBS; Trend Caribbean Netherlands, 2017). These differences are also visible in the languages spoken. On Bonaire, the main language spoken is Papiamentu, the creole language shared with Aruba and Curaçao, followed distantly by Dutch, whereas the first language of most residents on Saba and Sint Eustatius is (Caribbean or creole) English (CBS, 2012; 2013).

Table 3. First nationality of inhabitants, 1 January 2017 (CBS, 2017).

	Dutch	US and Canada	South and Central America and the Caribbean	Other
Bonaire	82 %	2 %	13 %	3 %
Saba	58 %	21 %	15 %	7 %
Sint Eustatius	78 %	3 %	14 %	5 %

The Caribbean Netherlands are now more intensively integrated into the Netherlands than ever before, which provides opportunities as well as tensions. In contrast to regular Dutch municipalities, political power on the three islands of Bonaire, Saba, and Sint Eustatius is shared between local island institutions and the central Dutch government. The interplay between these two political executives is complex and fascinating as “local government” on the three islands now by definition involves both domestic and metropolitan structures and players. However, the inherent inequality in political power and administrative capabilities (primarily in terms of financial resources) means that the relationship between these institutions is characterized by asymmetry. Furthermore, and related to the small population of the islands, the significant influx of Dutch bureaucrats and citizens has a social and political impact that should not be underestimated, and clearly generates tensions.

Since the political reforms, several (in-depth) studies have been conducted regarding the success and local feelings towards the new status (CurConsult, 2012; Spies et al, 2015; Veenendaal, 2016a). While clearly not all the intended results of the reforms were achieved after five years (Spies et al, 2015), these studies do indicate that Bonairean, Saban, and Statian residents are positive about developments regarding education, health care, immigration services, and the police. In contrast, they are generally negative about the rising cost of living and the increased levels of poverty. The studies also found that there is a serious resistance to the strong influx of Dutch residents as well as Dutch administrative dominance on the islands.

Many islanders regret the decreased autonomy and the fact that the Netherlands can unilaterally implement policy on the islands. While the Antillean government was always somewhat reluctant to intervene in the political affairs of individual islands, the political reforms have established a very powerful Dutch administration that does not hesitate to do so. Complaints are often expressed about the loss of identity and culture, the influx of European Dutch citizens, and the fear that local islanders will have less say in what happens on their islands (Duijf & Soons, 2011). As a result, some islanders now talk about the 2010 reforms as constituting a process of Dutch “recolonization”. These sentiments are rooted in the growing presence of the Dutch on the islands through both migration and tourism and the continued financial dependence on the Netherlands (Veendendaal & Oostindie, 2018). This growing presence of Europeans on the islands over the past decades also created more racial tensions, particularly on Bonaire and Sint Eustatius (de Geus, Mac Donald, Oostindie, van Stipriaan & Vermeer, 2020). Based on comparative

surveys conducted in 1998 and 2015, Veendelaal and Oostindie (2018) found that residents on the Caribbean Netherlands feel significantly less respected and understood by the Dutch in 2015 than they did two decades earlier. Finally, the 2010 reforms have also affected internal relations on the islands, as well as between them. On Sint Eustatius and Saba, there are feelings that the previous subordination to Curaçao and Sint Maarten has been exchanged for undue dependence on Bonaire, the Dutch administrative center of the Caribbean Netherlands. Overall, the constitutional reforms have clearly not led to all the improvements in the governance of the Caribbean Netherlands anticipated in 2010 (Veenendaal, 2017a; 2017b).

1.3 SITUATIONAL FRAMEWORK

Nature conservation in the Caribbean has always been a contested topic. The dominant players are politically and historically determined, and these politics and this history have a clear impact on nature conservation. In the Dutch Caribbean, this is further complicated by two factors: on the one hand, the extreme small scale of the islands, and, on the other hand, the fact that the constitutional reforms led – unintentionally – to the reproduction of colonial inequality and thus resentment of a perceived “re-colonialization”. This creates local resistance towards environmental activism as pro-environmental behavior is experienced as “Dutch” and, thereby, negatively, by some locals.

The small scale of the islands also has implications that need to be taken in account in terms of environmental conservation and management. First, the effects of environmental degradation are likely to be clearly visible, which can trigger the perceived need among residents to take action. This brings me to the second point, namely that while the need for action is evident, the small scale of the communities means that there are a limited number of stakeholders involved in the management process. While this could make governance of the environment easier (Debrot & Sybesma, 2000; Polman, Reinhard, van Bets, & Kuhlman, 2016) because actors know each other which enables quick collaboration and sharing of knowledge, there are also downsides. Although knowing each other can be positive, Veenendaal (2017a) concluded that in terms of politics and governance, this phenomenon also has negative implications such as clientelism, patronage, and strong polarization. In terms of environmental management, the fact that everybody knows each other can exacerbate already existing tensions and conflict of interests among the different stakeholders (Polman et al, 2016). In addition, the limited number of actors also implies there are few people with the required skills and tools to take environmental action. Moreover, the islands also deal with a phenomenon called the “brain drain”, meaning that often the highly skilled or educated people leave the islands to pursue their education and careers abroad. This contributes to the limited pool of available people on the islands required to effectively govern the local resources. Another issue, as I already mentioned, is that small islands are generally economically vulnerable as they rely heavily

on only few economic sectors. In the case of the Caribbean Netherlands, these are indeed tourism and fisheries, in addition to government services. On Bonaire and Sint Eustatius, oil storage, and the medical university on Saba, also play significant roles. This limited number of economic activities makes the islands vulnerable, as a decline in income from tourism can have detrimental socio-economic effects (Kelman, 2018). In addition, and related to the limited but highly valuable environmental resources, competition for these resources is inevitable, e.g., tourists versus fishers, both of whom make use of the marine ecosystem (Polman et al, 2016)⁶. Lastly, small-scale is also related to the aforementioned non-sovereign relationship between the islands and the Netherlands. According to research conducted by Veenendaal and Oostindie (2018), awareness of the small scale of the islands is one of the main reasons that the island residents chose to maintain a close relationship with the Netherlands, despite the concerns about the loss of the islands' culture and identity.

In addition to the scale issue, it is important to understand the run-up to, and the consequences of, the three islands becoming special municipalities of the Netherlands in relation to environmental conservation. Colonial history and the present constitutional imbroglio, meaning the complex governance structure of the Caribbean islands within the Dutch Kingdom and the Netherlands, have deeply impacted the population and culture on the islands. This “head vs heart” dilemma in which the economic and other benefits of a non-sovereign status collides with a desire for greater autonomy from the European Netherlands (Oostindie & Veenendaal, 2018) is deeply interwoven in the fabric of these societies. Therefore, this influences many of the ways in which residents face the contemporary environmental challenges on the islands, and it certainly impacts the perceptions and views on nature conservation that people have.

While environmental transformation already took place in the pre-Columbian era, the colonial period was decisive for the human-environment relationship on islands due to the extinction of indigenous peoples. The Spaniards introduced many invasive plant and animal species to the islands, such as goats, sheep, and donkeys and deforested areas in order to set up the plantation monocultures (O'Toole, 2014). On islands where plantation agriculture was much less significant, such as on the Dutch Caribbean islands, (Dutch) colonists displayed a similar eagerness to exploit the islands' natural resources for the benefit of the metropole (Jaffe, 2016). Paradoxically, the origins of the contemporary environmental movement also lie in these colonial events, as this was also the period in which environmental awareness emerged. The ecological degradation that took place as a result of colonial practices triggered the debates on the ways the land was being

6 It should be noted that there are also arguments that highlight the positive implications of small scale when dealing with environmental stressors, including climate change. Here, scholars emphasize the resilient character of these islands and their communities in dealing with the impacts of climate change. For an overview of these debates see, for example, Walsche & Stanchioff (2018); Kellman (2018); and Chandler & Pugh (2020).

exploited (Adams & Mulligan, 2012; Jaffe, 2016; Grove, 1997). In other words, “both the exploitation of nature in the colonies and the impetus to conserve nature for longer-term human use were a product of the colonial mind-set”, a reality that remains to this day (Adams & Mulligan, 2012, p. 5; Barton, 2002; Grove, 1997; Jaffe, 2016; Murphy, 2009).



Figure 12. Canons in Fort Oranje in Oranjestad, St. Eustatius.

Many of the legacies of colonialism have implications for the way society understands and responds to contemporary environmental challenges (Murphy, 2009, p. 23). Or as accurately summarized by Jaffe (2016, p. 47): “The Caribbean natural and built environments, which are products of the inequitable relations of power under colonialism, continue to shape contemporary social relations: they enable certain types of encounters, interactions and connections, while frustrating others”. Jaffe (2016, p. 47) argues that in the Caribbean “the material and social production of [urban] pollution cannot be seen outside of histories of colonialism and institutional racism”. In this dissertation, I make a similar argument, and posit that in the Caribbean Netherlands the social dynamics shaping efforts of environmental conservation and management can only be understood within islands’ histories and an understanding of the lingering impact of colonialism.

In addition to these colonial legacies, the constitutional reforms led to changes in the formal responsibilities regarding the management of the environment. What was previously centrally regulated through the government on Curaçao and the governments of the islands, is now distributed through a division of roles between the Dutch government and the authorities within the public entities. This, in turn, led to

changes in the availability of resources, but also to an increased pressure to meet the requirements stipulated by international environmental agreements. While a similar division of roles and responsibilities between the Dutch government and the islands' authorities is maintained as when Curaçao functioned as the central government for the Netherlands Antilles, the big caveat is the fact that, compared to Curaçao, the Netherlands is farther removed from the island realities but at the same time more prone to act. Consequently, changes are implemented that at times are not deemed desirable nor feasible for the islands (Spies et al, 2015). Again, these events feed into the sentiments about re-colonization on the islands, straining the relationship between the European (Dutch) migrants and the locals.

While all these factors play into the unique contexts in which conservation actors make their decisions on the islands, there is therefore an obvious need to take drastic action to address the myriad environmental problems which requires a collective effort by multiple stakeholders. And, indeed, there is a growing group of residents taking action. Thus, I want to better understand who these people are and why these people choose to become and remain active in the field of nature conservation on the islands, especially within the context of the colonial legacies and present-day cultural, social, and political sensitivities.

This brings me to a third and final concept I take into consideration throughout this dissertation, namely the notion of belonging. The need to belong is one of the most persistent motivations of behavior (Baumeister & Leary, 1995). Fulfilling this need gives people a sense of meaning and identity and strengthens their self-esteem and overall well-being. One way to fulfil this need is to engage in behavior that is approved of by the community or group a person wants to belong to. Conserving the environment can be considered such a behavior (Batson, 1998; Clayton et al, 2016; Nolan & Schultz, 2013).

Considering the dire need to protect the environment of the Caribbean Netherlands on the one hand, and the ambivalent views people on the Caribbean Netherlands have towards environmental conservation on the other hand, creates an interesting context to further examine the relationship between belonging and conservation efforts. Moreover, and as I mentioned previously, the constitutional reforms also led to debates on identity and cultures within the island communities of the Caribbean Netherlands (Veenendaal & Oostindie, 2018). Specifically, islanders often express their fears that the strong Dutch presence might lead to a loss of the traditional local culture and identity of the islands (de Geus, Mac Donald, Oostindie, van Stipriaan & Vermeer, 2020). In addition, the small scale of the islands creates an environment where the conservation actors are easily made subjects of criticism by the community, which can have consequences to one's reputation. These factors may help to explain why some residents tend to be more engaged than others in certain types of behavior. In other words, the implications of the constitutional reforms and the overall (post) colonial history of the islands, coupled

with the islands' small scale, and people's sense of and desire to belong might affect the decision to engage, or not, in certain types of environmental conservation behavior.

1.4 RESEARCH QUESTIONS AND METHODS

What does all of this mean for the conservation landscape on the islands, specifically the residents who actively make an effort to protect the environment? Based on the aforementioned contexts, I formulated this main research question:

What role does the perception of belonging (or self-identification) have in how or why people engage in conservation activities in the Caribbean Netherlands?

This research question is split up in several sub-questions, which I explore in the two parts of this dissertation. Part One has a social psychological focus and addresses the following set of sub-research questions:

- *What are the motives and challenges of the individuals protecting the environment on the islands of the Caribbean Netherlands? (Chapter 2)*
- *How are the motives of individuals for protecting the environment on the islands of the Caribbean Netherlands affected by the historical/cultural, political and small-scale context of the islands (Chapter 3)?*
- *Do people protect the environment partly or even primarily as a means to create a sense of belonging within their (island) community (Chapter 4)?*

Part Two presents a case study of the fishery sector of Bonaire, which provides in-depth insights that include perspectives and experiences of a more diverse set of stakeholders affected by nature conservation efforts. The two sub-questions addressed in Part Two are:

- *What does Bonaire's fishery sector look like and how has the sector been managed through time? (Chapter 5)*
- *Can a fishery cooperative help resolve the existing (co-)management challenges present in the fishery sector of Bonaire, and how is this affected by notions of belonging, the small scale of the island, and the constitutional reforms of 10/10/10 (Chapter 6)?*

Through my use of multidisciplinary methods, I seek to understand the impact social and political changes have on the conservation efforts of residents of Bonaire, Saba, and Sint Eustatius. Most (real-life) problems are multifaceted, in that they have multiple types of causes and determining factors (Menken et al. 2016). By approaching the problem from different perspectives and disciplines, using different methodologies, I aim for a more holistic understanding of the identified problem. I combined quantitative and qualitative anthropological and social psychological research methods. I briefly describe

the three methods I used throughout this research during two periods of fieldwork, below. I present these more extensively throughout the chapters of this dissertation. Here it should be noted that truly combining the multiple disciplines on which this dissertation is based is a complex process, because of the diverging epistemological underpinnings and methods of social psychology and anthropology. Where psychology leans towards positivism and quantitative methods (i.e., there exists an objective reality, and objective knowledge which can be measured), (cultural) anthropology is in general more reflective and constructionist in nature relying on qualitative methods (i.e., reality is subjective, and knowledge depends on beliefs, values, and experiences). Even though both disciplines stem from social sciences, these differences presented challenges in terms of combining them while answering my main research question.

I completed the first period of fieldwork from April until June in 2016, during which I visited all three islands. Sint Eustatius (11th April – 27th of April) and Saba (28th April – 13th of May) each for a period of two and a half weeks, followed by Bonaire for the duration of one month (14th of May – 17th of June). During this first field visit, I conducted semi-structured interviews and conversations with more than 90 residents of the Caribbean Netherlands (37 Bonaire, 27 Sint Eustatius, 26 Saba). These residents were individuals who actively protect the natural environment of the three islands, as well as local government officials, nature park rangers, politicians, conservationists, and scientists. I spoke with them to gather information on their views of, and experience with, environmental protection on their island of residence. I almost always (video) recorded the interviews, if consent was given. Otherwise, I recorded the interviews in notebooks. The recorded interviews were transcribed and analyzed post-fieldwork.

I developed and pre-tested an online survey among the residents of each island during the first field trip, which I launched after this first visit to the islands. The final questionnaire covered a number of issues, ranging from a detailed demographic description to a number of social psychological measures. The questionnaire allowed residents who actively protect the natural or cultural environment of the islands to reflect on their motives behind their engagement. I collected this data from June through September 2016.

My second fieldtrip, in 2017, came about through collaboration with the World Wide Fund for Nature – The Netherlands (WWF-NL). For a period of three months (October 2017 – December 2017), I conducted action research on Bonaire. To illustrate the interconnections between community, environmental (mis)management and how this is affected by societal changes, I present a case study on the fishery sector of Bonaire. This case study helped to develop insights in the social complexities behind environmental protection both from a top-down and bottom-up a perspective. I discuss the specific research methods and techniques that I used in greater detail in the subsequent chapters.

1.5 STRUCTURE OF THE BOOK

This dissertation is divided into two parts that provide different insights and perspectives on the realities of environmental protection on the three islands. Table 4 presents an outline of the empirical chapters of this dissertation, including the research questions, data sources, (key)informants, and design used. Part One centers on the discipline and methodology of environmental psychology. Part Two presents the case study about fishery management on Bonaire, Saba, and Sint Eustatius. I conclude the dissertation in Chapter 7, where I summarize the research findings and answer the main research questions I posed for this research. In addition, I make suggestions for future research and contemplate possible implications for policy development.

Table 4. Outline of empirical chapters.

Chapter	Research Question(s)	Data source	Informants	Design	Year	Author
Part 1						
2	What are the socio-psychological drivers of conservation actors in the Caribbean Netherlands to actively and publicly protect their island's natural environment?	Recruited sample of residents of the Caribbean Netherlands	Conservation actors Caribbean Netherlands	Semi structured interviews	2016	Mac Donald
3	How does the political-historical and geographical context of the Caribbean Netherlands affect conservation actors? How does this context affect the relation between belonging and conservation actors' motives to protect the Caribbean Netherlands' natural environment?	Recruited sample of residents of the Caribbean Netherlands	Conservation actors Caribbean Netherlands	Semi structured interviews	2016	Mac Donald
4	Do people protect the environment to fulfil their need to belong within their community?	Study 1: Online recruited sample of residents of the Caribbean Netherlands Study 2: Prolific Academic online database	Conservation actors Caribbean Netherlands Conservation actors Residents rural U.K.	Online questionnaire Online Questionnaire	2016-2017	Mac Donald & Staats
Part 2						
5	Who are the fishers of Bonaire and what does Bonaire's fishery sector look like? How has the sector been managed through time? How has this affected the role of the fishers in management effort?	Recruited sample of residents of Bonaire Archival sources	Fishers & fishery stakeholders Bonaire	Archival research & Semi-structured interviews	2018	Mac Donald
6	How are the management challenges of the fishery sector of Bonaire amplified by three specific characteristics of the local context of Bonaire, namely its small scale, the constitutional reforms of 10/10/10, and the island's colonial past and, how do these challenges relate to notions of belonging? Can a fishery cooperative alleviate or resolve the management challenges the fishery sector on Bonaire faces? Do the fishery co-management strategies on Bonaire adhere to the CPR design principles?	Recruited sample of residents of Bonaire	Fishers & fishery stakeholders Bonaire	Participatory Action Research Semi-structured Interviews	2018	Mac Donald

