

Wosuna, Wong, WOTRO, and other acronyms



A History of Dutch Tropical
Research Organisations in
Suriname and Beyond

Elia Schure



Utrecht
University

Flam
01/10/23

Wosuna, Wong, WOTRO, and other acronyms

A History of Dutch Tropical Research Organisations in Suriname and Beyond

Name: Elian Schure

Student number: 0841137

Title of work: Wosuna, Wong, WOTRO, and other acronyms: A History of Dutch Tropical Research Organisations in Suriname and Beyond

Supervisors: Dr. Robert-Jan Wille and Dr. Stephen Snelders

Number of words: 31978

Cover page image: Scientific Institute Wosuna in Paramaribo, 20th of October 1954. Published in the 1954 Wosuna year report on page 7.

Acknowledgements

I would like to express my deep gratitude to my thesis supervisor, Robert-Jan Wille for his assistance, patience, and excellent film recommendations. I greatly enjoyed our conversations and appreciate your engagement throughout the process. Thank you for all your film reviews, puns, and thesis feedback.

Special thanks to my second reader, Stephen Snelders, for stepping in where necessary and giving me several excellent suggestions. This thesis would not have been the same without his assistance.

I would also like to thank all the teaching staff of HPS for their engaging conversations and moral support. I hesitate to leave such a wonderful community, in which I have felt greatly at home.

I am deeply grateful to my family for their continuous support throughout my confusing and occasionally unclear academic career. Many thanks to Nathalie, Frank, Maike and Stach for being my wonderful family. *Merciekes! D'r zeet bedank.*

Then to my fellow *Koele Kikkers*, without whom I would not have been nearly as inclined to work on my thesis. Thank you for making me show up, reminding me to have lunch and go outside, and for all the good times in the HPS room. Except for the *Kikkers*, I owe special gratitude to Juliette, Sioniann, Oscar, Esther, and Paola for keeping me on my toes and for continuous moral support.

Lastly, I would like to thank the person whose support I can always count on. Thank you for sharing your life with me for the last four years, throughout a global pandemic and while having an ocean between us. Many thanks as well for designing a beautiful cover for my thesis. As always, you have exceeded my expectations. My dearest Flavio, *muito obrigada. Eu te amo.*

Acknowledgements	2
Introduction	5
Introducing Wosuna and WOTRO	5
Research method	10
Academic and social background	10
Short overview thesis	11
Chapter 1: Short History of Suriname	13
Suriname before the 1950s	13
Suriname before Suriname	13
The coming of the Europeans	13
Political changes at the end of the nineteenth century	15
Suriname in the twentieth century	17
Economic developments	17
Science in the early twentieth century	19
The state of scientific research in Suriname	19
The agricultural research station in Suriname	20
Geography in Suriname	21
Early explorations in Suriname	21
Scientific expeditions in the early twentieth century	21
The birth of Dutch interest in Suriname	24
To summarise	25
Chapter 2: The Development of Dutch scientific institutions in Suriname after 1945	26
Political changes in the Dutch Empire	26
From the end of the Second World War to the autonomy of the colonies	26
The rise of Surinamese science	27
The coming into existence of Wosuna	29
General organisation of Wosuna	29
Who could receive sponsorship?	31
The temporal aspect of Wosuna's foundation	33
The chairperson of Wosuna	34
Research conducted under Wosuna	35
Emphasis on Suriname	37
Surinamese and Antilleans on Wosuna projects	38
Wosuna in action	40
The Brokopondo Research Project	40
Economic and scientific consequences of the Brokopondo barrage	42

Surinamese involvement in the Brokopondo Research project	44
Operation Grasshopper	46
Wosuna in Suriname.....	48
Wosuna’s attitude towards Suriname	48
To summarise	48
Chapter 3: From Wosuna to WOTRO.....	50
Dutch tropical research	50
What exactly are the tropics?	50
The coming into existence of WOTRO	52
The end of Wosuna	52
The beginning of WOTRO	53
New Guinea’s influence on WOTRO	55
Research sponsored by WOTRO	57
Wotro’s funds and general aims	57
WOTRO in comparison to Wosuna	59
The Brokopondo research under WOTRO	60
Dutch science in Suriname	62
Suriname in the 1960s and 1970s.	62
Less research in Suriname	64
Higher education and science in Suriname	66
Dutch science in the other former colonies	67
Scientific research in New Guinea	67
Scientific research in Indonesia	67
Surinamese and Antillean interest in WOTRO.....	69
Interest in the Netherlands Antilles	69
Interest in Suriname	69
WOTRO from a global perspective	70
WOTRO in the context of the former Dutch Empire	70
WOTRO and Suriname	71
Conclusion	73
Tropical research in a period of decolonisation	73
Wosuna in Suriname	74
WOTRO in Suriname	75
Further research	77
Reference List	78
Newspaper articles	80

Introduction

Introducing Wosuna and WOTRO

On the 20th of October 1954, in Paramaribo, Suriname, Dr Joseph Lanjouw spoke in front of a new and exciting organisation for Dutch research in Suriname and the Netherlands Antilles. Lanjouw, a botanist connected to the University of Utrecht, developed the idea for the organisation himself. As he elaborates in his oration, the idea had come to him in the bitter winter of 1943, in the middle of the German occupation of the Netherlands during the Second World War. After the Dutch liberation, he immediately set to work on realising his ideas¹. His efforts eventually resulted in the Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles, also known as Wosuna². Wosuna was supposed to stimulate, coordinate, and sponsor Dutch research in the overseas territories in the Americas, specifically in Suriname and the Netherlands Antilles. The organisation also wanted to ensure that the research conducted connected to the needs of the Surinamese and Antillean governments. As such, the organisation also had a developmental function in coordinating research that would benefit the overseas territories within the Kingdom of the Netherlands³.

Lanjouw founded Wosuna with many prominent scholars from Dutch universities and scientific institutions. Yet, Wosuna was not the only new organisation to study the overseas territories. Except for Wosuna, several other organisations for research in Suriname and the Netherlands Antilles came into existence in the 1950s. The scientific attention for Suriname and the Netherlands Antilles was new. The two Dutch territories overseas had not received much scientific attention⁴. Though Suriname had a history of geographical explorations and expeditions, little Dutch scientific research took place before the foundation of Wosuna⁵.

The newfound attention to Suriname and the Antilles coincided with several other vital events in the Dutch Kingdom. In the same year as the foundation of Wosuna, Suriname and the Netherlands Antilles became autonomous countries in the Kingdom of the Netherlands. After several centuries of being Dutch colonies, the two territories were supposedly on equal footing with their former

¹ Stichting Wetenschappelijk Onderzoek Suriname- Nederlandse Antillen (Wosuna): *Jaarbericht 1954*. (Paramaribo: Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna), 1955), 9-10.

² In the Netherlands, the organisation was known as *Stichting Wetenschappelijk Onderzoek Suriname-Nederlandse Antillen*.

³ Stichting Wetenschappelijk Onderzoek 1954, 9-11.

⁴ F. Oudeschans Dentz, "Suriname tijdens de regeering van Koningin Wilhelmina: Veertig jaren geschiedenis van onze West", *Arnhemsche Courant*, September 5, 1938, 4.

⁵ W. Gordijn, C.F.A Bruijning, Jan Voorhoeve, *Encyclopedie van Suriname*, (Amsterdam: Elsevier, 1977), 192-195.

coloniser⁶. In practice, the situation between the three countries remained somewhat tumultuous, and the end of the 1960s saw a significant amount of protests and riots against inequality within the Kingdom of the Netherlands⁷.

Another event that strongly influenced the composition of the Dutch empire in the late 1940s was the independence of Indonesia. Having long been a vital Dutch colony in Asia, the independence of Indonesia affected the Dutch government strongly. The independence also resulted in Netherlands New Guinea being the sole Dutch territory in Asia⁸. As such, the Dutch influence in Asia shrunk significantly. The independence of Indonesia also forced the Dutch government to move their attention from the East Indies to the 'West Indies', Suriname and the Antilles⁹. The rise of scientific attention for Suriname thus coincided with rising political attention.

Suriname was a Dutch colony for several centuries, yet Suriname never received much Dutch attention. During the Dutch colonisation, the Dutch attempted to make Suriname a successful plantation economy. Despite the enduring attempts, Suriname never became profitable for the Netherlands¹⁰. However, with the new political attention and the rise of scientific organisations coordinating science in Suriname and the Antilles, the Dutch seemingly interacted with Suriname more.

The economic troubles of Suriname, however, did not end. After most of the large-scale plantations in Suriname were closed, the Surinamese economy became largely based on mining and exporting ores and aluminium. As such, the Surinamese dependence on the international market continued. This period of economic insecurity in the 1960s saw several large-scale infrastructural projects resulting in significant financial gains¹¹. Yet, much of the profits from these projects went abroad, as most of the vital economic companies also remained in the hands of foreign countries, which limited the economic profits Suriname received¹². Suriname thus remained dependent on foreign countries and companies. As a consequence of the financial instability, the country experienced a mass migration and brain drain to the Netherlands¹³.

⁶ Gert Oostindie and Inge Klinkers, *Decolonising the Caribbean: Dutch Policies in a Comparative Perspective*, (Amsterdam: Amsterdam University Press, 2003), 84.

⁷ Oostindie and Klinkers, *Decolonizing the Caribbean*, 96-97.

⁸ Adrian Vickers, *A History of Modern Indonesia*, (Cambridge: Cambridge University Press, 2012), <https://doi.org/10.1017/CBO9781139094665>, 102-104, 116.

⁹ Oostindie and Klinkers, *Decolonizing the Caribbean*, 64, 72.

¹⁰ Rosemarijn Hoefte, *Suriname in the Long Twentieth Century: Domination, Contestation, Globalization*, (New York, NY: Palgrave Macmillan, 2014), <https://doi.org/10.1057/9781137360137>, 34-35.

¹¹ Hoefte, *Suriname in the Long Twentieth Century*, 96.

¹² Roger Janssen, *In Search of a Path: An Analysis of the Foreign Policy of Suriname from 1975 to 1991*. Caribbean Series, 27, (Leiden: KITLV Press, 2011), <https://doi.org/10.1163/9789004253674>, 9.

¹³ Hoefte, *Suriname in the Long Twentieth Century*, 112.

Despite the troubling financial circumstances in Suriname, the foundation of Wosuna did result in more Dutch scientific research conducted in Suriname. In the first five years of Wosuna's existence, more than 60 research projects gained sponsorship in Suriname and 25 in the Netherlands Antilles¹⁴. As it was one of Wosuna's goals to conduct research that would benefit the Surinamese government, the research conducted in Suriname should have positive consequences for Suriname. Wosuna sponsored Dutch researchers who conducted research in Suriname or the Antilles for a predetermined time. The Executive Board of Wosuna would assist the researchers where necessary¹⁵.

Wosuna became the first large-scale organisation to stimulate, sponsor and coordinate Dutch research in Suriname. According to the year reports published by Wosuna, Wosuna also had the humanitarian task of conducting research that would benefit the Surinamese and Antillean governments¹⁶. However, throughout Wosuna's publications, there is often little reflection on how Suriname and the Antilles would benefit from the research. In the case of some large-scale studies Wosuna conducted, it even seems to damage some Surinamese inhabitants more than it benefits them¹⁷. The year reports of Wosuna also rarely mention local assistants or local researchers assisting or conducting research in Suriname, yet always elaborate upon the Dutch researcher involved with the project. As such, it seems that Wosuna presented itself as an organisation with humanitarian goals, yet in practice especially focused on allowing Dutch scientists to conduct studies in Suriname. Wosuna's actions do not always seem to have the interests of the Surinamese people in mind.

Despite Wosuna being rather successful in stimulation and coordination research, the organisation only existed for ten years. After ten years of research in Suriname and the Antilles, Wosuna was replaced by a larger, more general organisation. In 1962, the Royal Netherlands Academy of Science¹⁸ started a committee to investigate the possibility of a Dutch organization for general tropical research¹⁹. The new organisation for tropical research would be active in the former Dutch colonies and other countries in the tropics. The independence of Netherlands New Guinea in 1962 speeded up the discussions²⁰. Netherlands New Guinea was the last remaining Dutch territory in Asia and housed Wosuna's sister organisation, the Netherlands Foundation for the Advancement of Research in New

¹⁴ Netherlands Foundation 1954-1959, 9-11.

¹⁵ Stichting Wetenschappelijk Onderzoek 1954, 11.

¹⁶ Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna): *Report for the year 1963*, (Paramaribo: Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna), 1964), 13.

¹⁷ Netherlands Foundation 1963, 20-22 and Hoefte, *Suriname in the Long Twentieth Century*, 144.

¹⁸ In Dutch: *Koninklijke Nederlandse Vereniging van Wetenschappen*, also known as the KNAW.

¹⁹ Stichting voor Wetenschappelijk Onderzoek van de Tropen, *Tropical Research in Development: Wotro, 1964-1989*, ('s-Gravenhage: Stichting voor Wetenschappelijk Onderzoek van de Tropen, 1989), 4.

²⁰ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4-5.

Guinea (Wong)²¹. As the scholars connected to Wong would be without a place for research after the independence of New Guinea, the organisation for tropical research could provide a way to continue research in New Guinea and other tropical countries²². As such, 1964 saw the birth of the first organization for Dutch tropical research in general. The Netherlands Foundation for the Advancement of Tropical Research²³, known as WOTRO took over most structures from its predecessors Wosuna and Wong, yet stimulated research in a much greater territory than only the (former) Dutch overseas territories²⁴.

As the organisation was no longer linked to the former Dutch colonies and focused on the tropics, a greater area could be researched. WOTRO quickly grew to a successful organisation that sponsored research in various academic disciplines in many countries. WOTRO allowed researchers a plethora of countries to choose from to conduct their research. The number of studies receiving funds to research Suriname went down quickly after WOTRO replaced Wosuna. An even more intense drop in the number of studies took place in New Guinea, where WOTRO seldom sponsored research. It seems that the possibility of conducting research in any tropical country resulted in significantly less research in the former colonies²⁵.

The foundation of Wosuna and the later foundation of WOTRO show that Dutch research in Suriname depended on other events in the Kingdom of the Netherlands. Wosuna and Wong became WOTRO because Wong lost their place of research²⁶. Even the foundation of Wosuna is connected to a greater amount of attention for Suriname in the Netherlands. The scientific community and the press paid significantly more attention to Suriname after the Second World War, causing the foundation of Wosuna and several other organisations to stimulate research in Suriname²⁷. To gain perspective on the development of Wosuna and WOTRO and their actions in Suriname, the context of the decolonising Dutch Empire needs to be taken into account.

In this thesis, I aim to study the development and actions of Wosuna and WOTRO in Suriname between 1945 and 1975. As Wosuna was founded in 1954, I will shortly discuss the state of the Dutch Empire after the Second World War before moving to the history of Wosuna. In 1975, Suriname became an independent country, changing the connection between the Netherlands and Suriname. As such, this thesis will end at this point. The two organisations dedicated to Dutch tropical research abroad

²¹ In Dutch: *Stichting Wetenschappelijk Onderzoek Nieuw Guinea*.

²² Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4-5.

²³ In Dutch: *Stichting voor Wetenschappelijk Onderzoek van de Tropen*.

²⁴ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4-5.

²⁵ *Ibidem*, 8.

²⁶ "Onderzoek van Tropen Belangrijk," *De Tijd Maasbode*, September 5, 1964, Delpher, 12.

²⁷ Stichting Wetenschappelijk Onderzoek 1954, 9.

were founded during the slow decolonisation process of Suriname, in the larger context of the decolonisation of the Dutch Empire. The tumultuous decolonisation process of the Netherlands shall serve as background for developments in Suriname and the country's interaction with Wosuna and WOTRO. As Wosuna and WOTRO mainly intended to allow Dutch scholars to continue studying the former colonies, the importance of advocating for Dutch tropical research was an essential part of Wosuna and WOTRO. The research question I aim to answer in this thesis is: *How did the Dutch scientific research organisations Wosuna and WOTRO advocate for Dutch scientific presence in Suriname in the context of the decolonisation of the Dutch Empire in the period between 1945 and 1975?*

To answer the research question, I have divided this thesis into three parts. The first part discusses the state of Suriname with a special focus on science before the Second World War. In this chapter, I try to paint a picture of the relationship between Suriname and the Netherlands before the decolonisation. I study the economic developments of Suriname under Dutch rule and the rise of the bauxite industry from the early twentieth century onward.

In the second chapter, I elaborate on the coming into existence of Wosuna. I discuss Wosuna and the autonomy of Suriname, which both took place in 1954. I elaborate on two projects members of Wosuna were involved in and show how the presentation of these projects in the year reports of Wosuna contrasts with information published in newspaper articles. By contrasting the year reports with the newspaper articles and the secondary literature, I show the contrast between Wosuna's aims as an organisation that supports the Surinamese and Antillean governments and Wosuna's research practice which gives strong preference to allowing Dutch researchers to conduct studies in the tropics above anything else.

The third chapter discusses the transformation of Wosuna into WOTRO. The independence of Netherlands New Guinea caused the acceleration of the foundation of a tropical research organisation. WOTRO was founded to allow Dutch researchers to conduct tropical research in any tropical country. Yet, the connection to the independence of New Guinea leads me to conclude that WOTRO was a way to safeguard Dutch tropical research.

I will argue that various essential developments in the foundation of Wosuna and later WOTRO were influenced by the decolonisation of the Dutch Empire. The foundation of Wosuna shortly after the independence of Indonesia, and the potential insecurity concerning tropical research after the Surinamese autonomy shows the influence of Dutch decolonisation. Likewise, the foundation of WOTRO was directly connected to the decolonisation of the Netherlands New Guinea in 1962. The reliance on the former colonies for scientific research shows a dependence on the former colonies to practise tropical research and a strong desire to continue tropical research there. In the research

practises of both Wosuna and WOTRO, the interests of the Dutch scientists involved were given the highest priority, especially the continuation of Dutch tropical research was seen as vital. I aim to show that, despite both Wosuna and WOTRO conducting research that could benefit the country in which the research took place, the focus remained on the continuation of Dutch tropical research. The actions of the members of Wosuna and WOTRO show a desire to keep certain scientific privileges, such as the ability to conduct tropical research, in the former colonies.

Research method

To answer my research question, I conducted an elaborate literature research. To gain a perspective on Wosuna and WOTRO from their perspective, I studied year reports and other publications of Wosuna and WOTRO. I also looked into some of the publications made by scientists who received sponsorship from Wosuna and WOTRO. To contrast the year reports and gain a different perspective on the actions undertaken by Wosuna and WOTRO, I used newspaper articles from Dutch, Surinamese, and Antillean newspapers. To find newspaper articles that fit the topic of Dutch science in Suriname and the two research organisations, I used the newspaper archive Delpher.

To provide the context of the Dutch decolonisation process, I used some books concerning Dutch colonial history, the history of Suriname, and historical perspectives on tropical science. Especially Rosemarijn Hoefte's *Suriname in the Long Twentieth Century: Domination, Contestation, Globalization*, Gordijn, Bruijning, and Voorhoeve's *Encyclopedie van Suriname*, and Gert Oostindie and Inge Klinkers' *Decolonizing the Caribbean: Dutch Policies in a Comparative Perspective* were used to provide the necessary background to interpret the primary sources.

Academic and social background

Scientific research in colonial Suriname has not received the same amount of attention from scholars as Indonesia has. There are few sources concerning the development of Dutch science in Suriname. The country has not received much attention from historians of science. The lack of attention in Suriname could be partly due to the few Dutch scientific studies conducted there before the Second World War. The foundation of Wosuna and other scientific institutes did result in greater scientific attention for Suriname.

The unexpected rise of Dutch science in Suriname after the foundation of Wosuna is fascinating as it comes in an era of decolonisation and the autonomy of Suriname in the Kingdom of the Netherlands. Unlike Indonesia, where the decolonisation took a relatively short amount of time, the decolonisation of Suriname took multiple decades. Over forty years, the country went from being a Dutch colony to a Dutch overseas territory to an autonomous country within the Kingdom of the Netherlands, to finally an independent country. In this period of slow decolonisation, Wosuna and

WOTRO operated in Suriname. As such, the development and presence of Dutch scientific institutions are fascinating, as it takes place in a relatively tumultuous political period. The decolonisation of the Dutch empire thus presents a fascinating opportunity to study the actions undertaken by scientists to continue Dutch tropical research. I aim to study the development and advocacy activities of Dutch scientific organisations during the slow decolonisation of Suriname after the Second World War, as it provides a fascinating case study of scientific research in a former colonial context.

From a social perspective, the history of the Dutch colonial period is becoming more present in the daily discourse in the Netherlands. In recent years, multiple Dutch cities, companies and organisations have apologised for their role in the Dutch colonial period. Because Suriname has been a Dutch colony for more than three centuries, the history of Suriname and the Netherlands are intertwined. As such, it is vital to understand the role the Netherlands played in Suriname to understand the past and gain perspective for the present. As the effects of colonisation do not disappear overnight, it is essential to understand the consequences of the Dutch rule over Suriname. In this thesis, I aim to understand the role the Netherlands played in scientific research in Suriname to study how Dutch science took place in Suriname. As Suriname stopped being a Dutch colony in 1954 and did not gain independence until 1975, the consequences of the Dutch rule and scientific policy influenced Suriname until today.

Short overview thesis

In chapter one, I will discuss the history of Suriname before the 1950s. I will shortly discuss the inhabitants of Suriname before the arrival of the Europeans and discuss the development of a plantation economy under Dutch colonial rule. Special attention will be paid to the bauxite industry in Suriname and scientific practices in Suriname before the 1950s, as these topics are vital to understanding later scientific developments. The chapter ends by discussing the many geographical expeditions in Suriname that started in the late nineteenth century.

Chapter two concerns scientific practices after the Second World War and discusses the foundation and actions of Wosuna in a newly autonomous Suriname. I will discuss some of Wosuna's vital members in greater detail. Several of the Wosuna-sponsored studies will be described. The chapter ends with a discussion of two large-scale infrastructure projects in which individuals related to Wosuna were involved. The infrastructure projects, the Brokopondo Push and Operation Grasshopper, changed the ecology and socioeconomic conditions of the people living in the surrounding areas.

Chapter three discusses the shift from Wosuna and Wong to WOTRO. The independence of Netherlands New Guinea is discussed in the context of the foundation of WOTRO. I will elaborate on the notion of the tropics, and what exactly is meant with Dutch tropical research. I will discuss the

change from Wosuna to WOTRO in the context of Suriname and the other former Dutch colonies. As WOTRO allowed scholars to conduct studies in all tropical countries, the number of Dutch studies in Suriname decreased significantly. WOTRO-sponsored research in Indonesia, on the other hand, rose. Despite the number of WOTRO studies conducted in Suriname going down, Suriname's first university did develop. The Surinamese no longer had to travel abroad to receive a university education.

Chapter 1: Short History of Suriname

Suriname before the 1950s

Suriname before Suriname

The area we know today as the country of Suriname originally became populated by hunter-gatherers about 9000 or 10,000 years ago. Having crossed the Bering Strait around 12,000 years ago, groups of hunters started settling around the large rivers of Suriname. Some tribes settled in Suriname permanently around 500 AD. The first people to live in Suriname permanently were the Arawaks, arriving from the west, current-day Guyana. Around 1100 AD, Carib tribes invaded the Arawak settlements in the Amazon area. These two groups were the main inhabitants of Suriname until the Europeans invaded Suriname²⁸. Upon the arrival of the Europeans, the Caribs and the Arawaks had settlements around the Marowijne River, the Suriname River, and several other smaller rivers.

Geographically speaking, Suriname is a mountainous country covered in tropical rainforests. The inland consists of dense rainforests and mountain ranges. The general temperature in Suriname lies between 20 and 30 degrees Celsius, and the country is prone to downpours. Because of the temperature and rain, the average humidity of the country is high²⁹. The north of Suriname, near the coastline with the Atlantic Ocean, provides a less humid climate for people to live in. As such, the vast majority of the Surinamese population lives in this region, and the population density in the hinterland is much lower. The country is rather inhospitable for European immigrants, which might have contributed to the lack of a significant amount of Dutch and European migrants in the Dutch colonial period³⁰.

The coming of the Europeans

The first encounter between Europeans and the area that is now Suriname took place in 1499. Alonso de Ojeda, one of Columbus' fellow travellers, sailed past the Guyanas. Originally, there was little interest in the Guyanas from the Europeans. The interest rose significantly after the rumour spread that the Guyanas might be where the mythical El Dorado could be found. In the sixteenth century, Great Britain colonised Suriname, though several other European countries, including the Dutch, had some plantations and sugar mills in Suriname³¹. It did not stay in English hands for a long time. Suriname became a Dutch territory in 1667 in the Peace of Breda³². In this peace treaty between the Dutch

²⁸ Buddingh', *Geschiedenis van Suriname*, 13-14.

²⁹ Janssen, *In Search of a Path*, 2.

³⁰ *Ibidem*, 2.

³¹ Buddingh', *Geschiedenis van Suriname*, 9-15.

³² Hoefte, *Suriname in the Long Twentieth Century*, 1.

Republic and Great Britain, the British gave up Suriname in exchange for New Amsterdam, a Dutch territory nowadays known as New York City³³. This exchange started three centuries of Dutch rule over Suriname, which ended with the full autonomy of Suriname in 1975.

After the Peace of Breda, Suriname was governed by the Dutch West India Company. The West India Company (WIC) was founded as a Dutch trading company, specifically for trade between West Africa and the Americas. In practice, this meant that the WIC was concerned with trading enslaved people from Africa and transporting them to the Americas. The Dutch had given the WIC the monopoly on this type of trade, including naval, military, and political autonomy in the territories they were active in. As can already be guessed from the dubious function of the WIC, the history of the Dutch colonisation of Suriname is filled with the slave trade³⁴.

The new Dutch owners of Suriname developed the Surinamese economy similarly to the English. The Dutch focused on creating plantations to produce cash crops for exportation to European countries. Under the WIC, the Surinamese economy was off to a rocky start. The lack of political structures and infrastructure in Suriname made it challenging to run plantations. The individuals in charge of the WIC realised they could not run the territory by themselves. They had to accept the city of Amsterdam and a wealthy merchant family as co-owners to lessen the economic deficit of Suriname³⁵.

Despite the difficulties concerning running profitable plantations in Suriname, the Dutch founded many more plantations over the following centuries. However, the economic situation of Suriname remained disappointing to the Dutch rulers. One of the reasons why the plantation economy remained unsuccessful was the lack of unique crops Suriname had to offer. The exported products were similar to other European plantation economies in the Caribbean, the main export products being coffee, cacao, cotton, and sugar³⁶. The similarity in crop production between Suriname and other Caribbean colonies made Suriname strongly dependent on the international market and customer demands.

Despite attempts of the Dutch government to attract European immigrants to Suriname to assist in the colonial effort, the amount of Europeans living in Suriname remained relatively low throughout the colonial period³⁷. A few European settlers, who ran the plantations and had bureaucratic jobs, ruled Suriname. In comparison to other ethnic groups living in Suriname, the number

³³ Buddingh', *Geschiedenis van Suriname*, 12.

³⁴ Janssen, *In Search of a Path*, 3.

³⁵ Buddingh', *Geschiedenis van Suriname*, 24-25.

³⁶ *Ibidem*, 81.

³⁷ Janssen, *In Search of a Path*, 5.

of people from a European background would never be significantly high. The other ethnic groups living in Suriname throughout colonial rule were placed there by Europeans, though a few indigenous Surinamese people remained. The first group of people forced to settle in Suriname were enslaved people who mostly came from West Africa and were 'traded' by the WIC³⁸. Though it is unsure how many individuals the WIC transported from Africa, recent estimates suggest that around 200,000 Africans got transported to Suriname. In the eighteenth century, up to 90 per cent of the population of Suriname was enslaved³⁹. The enslaved individuals worked on the many crop plantations and thus can be seen as the backbone of the Surinamese economy⁴⁰.

Political changes at the end of the nineteenth century

In 1815, after the Napoleonic Wars, the newly formed Kingdom of the Netherlands took direct control over Suriname. Suriname would now belong to the Dutch monarchy rather than being controlled by the WIC, the city of Amsterdam, and several private administrators. The Dutch decided to place the governor of Suriname, who was in charge of the day-to-day rule of the colony, as the highest administrator. The king chose the governor of Suriname. The governor had an exceptionally powerful position in the daily rule of Suriname, as he could overrule the other governmental structures that were put in place in Suriname, such as the Policy Council. The Policy Council consisted of members of the European elite in Suriname and wielded some power in the colonial government, though this was mostly of an advisory nature. The changes of 1815 resulted in the governor being the most powerful man in Suriname, which he would remain until 1865. In 1865, the structure of the Policy Council changed to become the Colonial Council. This newly-formed Colonial Council consisted of appointed and elected members of the white elite in Suriname. The governor thus had to answer to the Colonial Council and the government in The Hague⁴¹. As such, the Colonial Council can be seen as a limited form of suffrage for the European settlers in the colony.

At first glance, the regulations introduced in 1865 were supposed to give more autonomous power to the white elites in the colonies and lessen the power of The Hague. However, as historian Gert Oostindie and researcher Inge Klinkers have shown, the lack of economic improvement in the Dutch Caribbean and Suriname caused the Dutch government to get more involved in the Caribbean again. The assumed higher levels of autonomy in Surinamese rule that the Colonial Council should have brought remained mostly theoretical. Except for the failed attempt at more autonomy, the regulations also gave more political power to the governor of Suriname. The governor was allowed to veto any

³⁸ Janssen, *In Search of a Path*, 5.

³⁹ Oostindie and Klinkers, *Decolonizing the Caribbean*, 58.

⁴⁰ Buddingh', *Geschiedenis van Suriname*, 78.

⁴¹ Janssen, *In Search of a Path*, 6.

decision made by the colonial council⁴². As such, the assumed autonomy given to some of the elite of Suriname did not materialise. Giving any autonomous power to the non-European population of Suriname remained out of the question.

In 1936, a further attempt to broaden the autonomy of Suriname merely resulted in the governor appointing the members of the colonial council. The small amount of representation of the Surinamese elite that was present was curtailed further. The political power of the governor, however, continued to rise. From then onwards, the governor gained more freedom to rule Suriname as he wanted to, without specific instructions from the Dutch monarchy⁴³. The governor did not need permission for his actions from the Dutch crown anymore, making him the highest authority in Suriname.

Except for the various failed attempts for Surinamese emancipation, the Dutch government made one vital decision that would significantly influence the Surinamese economy and population. Until the late nineteenth century, the backbone of the Surinamese economy was the crop plantations worked by enslaved people. Throughout the centuries of Dutch colonial rule, the enslaved people who arrived in Suriname played a vital role in the Surinamese economy. The abolishment of slavery in 1863 resulted in the Dutch needing to find a solution to ensure that the plantation economy would not stop functioning completely. The Dutch government found one by introducing the notion that formerly enslaved people had to complete a ten-year labour period. The ten-year period of 'state supervision', as it was euphemistically called, gave the Dutch government time to determine how the colony could replay the thousands of workers that would no longer be enslaved⁴⁴.

The lack of labour force, the Dutch government decided, could be solved by attracting indentured migrants. These migrants mostly came from Asia, especially from British India and the Dutch East Indies, and replaced the formerly enslaved Africans from 1873 onward. From the end of the nineteenth century to the early twentieth century, around 70,000 Asians arrived in Suriname, many of whom stayed in Suriname permanently⁴⁵. The abolishment of slavery thus resulted in the introduction of different ethnic groups in Suriname, significantly changing the country's population and introducing new customs and religions.

⁴² Oostindie and Klinkers, *Decolonizing the Caribbean*, 60.

⁴³ Oostindie and Klinkers, *Decolonizing the Caribbean*, 61.

⁴⁴ Hoefte, *Suriname in the Long Twentieth Century*, 1, 52.

⁴⁵ *Ibidem*, 30.

Suriname in the twentieth century

Economic developments

Despite the population growth, the Surinamese economy had not undergone many changes in the early twentieth century. The Dutch government continued to stimulate the production of cocoa, sugar, and other tropical crops, as they believed that this type of agriculture would eventually prove beneficial for making an economic profit. However, as Rosemarijn Hoefte shows, this dependence on agriculture meant that Suriname relied entirely on the international market and was highly sensitive to environmental factors that could influence crops. Plant diseases and bad weather conditions could prove fatal to entire harvests, leaving plantations with significant losses⁴⁶.

Except for a strong reliance on the international market and a dependence on environmental conditions, the plantation economy was breaking up for another reason. The formerly enslaved individuals and indentured workers gained their freedom in the early twentieth century. Rather than staying on the plantations, many of them looked for work in the capital, Paramaribo. Others decided to work on smaller plots of land that they owned themselves. As the formerly enslaved and indentured labourers formed a significant part of the Surinamese workforce, their decisions to leave the plantations significantly altered the agricultural environment of Suriname⁴⁷. Throughout the early twentieth century, large plantations stopped being the standard type of agriculture practised in Suriname. Both Rosemarijn Hoefte and Roger Janssen state that small-scale agriculture became the most common type of agriculture⁴⁸.

Small-scale agriculture, however, did not change the fact that Surinamese agriculture failed to create economic profit. At the end of the nineteenth century, the discovery of minerals led to the rise of the mining industry in Suriname. The discovery of gold caused a gold rush in Suriname, leading to the arrival of foreign miners, entrepreneurs, and engineers. The gold discovered in Suriname was relatively few compared to the Guyanas, yet it formed a vital element of the newfound mining industry⁴⁹. A further product that Suriname started to export in the early twentieth century was balata. Balata is a rubber-like product that gets won by making Balata trees bleed. The export of balata quickly became a vital source of income in the early twentieth century and largely replaced agriculture as the most vital facet of the economy. At the peak of the balata export around 1910, Suriname exported more than three million kg per year. For a while, balata seemed to become the new monoculture of Suriname, yet the unsustainable harvesting methods prevented the balata industry from growing as

⁴⁶ Hoefte, *Suriname in the Long Twentieth Century*, 34.

⁴⁷ Janssen, *In Search of a Path*, 8-9.

⁴⁸ Hoefte, *Suriname in the Long Twentieth Century*, 34-36.

⁴⁹ *Ibidem*, 39-40.

much as it could have. As Rosemarijn Hoefte shows, the discovery of bauxite, a vital ore for the production of aluminium, completely changed the Surinamese economy. Especially in the interbellum period, the export of bauxite caused the Surinamese economy to make a profit for the first time. Originally, the discovery of bauxite did not receive much attention, yet the United States quickly saw its potential⁵⁰.

The First World War created difficulties in exporting aluminium from Europe to the US, resulting in the US searching for new potential sources of aluminium. Suriname ended up being the chosen provider. A subsidiary of the US company ALCOA (Aluminium Company of America) essentially denationalised a significant amount of the land where bauxite was discovered, successfully creating a monopoly on the trade and mining of all bauxite in Suriname. According to Roger Janssen, the nationalisation of the Surinamese land by the US-Americans resulted in the US having a significant amount of influence in Suriname⁵¹. Although many Surinamese people worked in the bauxite mines, the US mainly profited from producing and exporting bauxite. Especially during the Second World War, the Surinamese export of bauxite was of vital importance for the economy, as aluminium could no longer be imported from Europe and other areas⁵².

As seen in the development of the mining industry, Suriname suffered from several economic issues that stopped the country from making economic profits in the first half of the twentieth century. As Rosemarijn Hoefte shows, foreign countries controlled the pillars of the Surinamese economy. In the case of the bauxite industry, the US owned all the bauxite found on Surinamese soil. Likewise, the Dutch were still largely in charge in Suriname, meaning that the Dutch could control companies and make economic decisions. Furthermore, the Surinamese economy suffered from a strong dependence on the international market. As the Surinamese economy consisted largely of exporting agricultural goods and minerals to Europe and Northern America, Suriname was dependent on the market and demand of these countries⁵³. Despite the shift from agricultural products to minerals, the overall structure of the Surinamese economy remained similar to the way it had been over the previous centuries. Foreign countries continued to profit and control the means of production.

As can be seen, the economy of Suriname diversified but remained dependent on foreign countries. For this reason, Rosemarijn Hoefte has argued that the Surinamese economy did not change significantly after the abolishment of slavery. There were fewer plantations and less reliance on

⁵⁰ Hoefte, *Suriname in the Long Twentieth Century*, 43-45

⁵¹ Janssen, *In Search of a Path*, 9.

⁵² Hoefte, *Suriname in the Long Twentieth Century*, 117-118.

⁵³ *Ibidem*, 47.

agricultural produce, yet the main elements of the colonial economy remained⁵⁴. Politically speaking, Suriname in the twentieth century remained under almost complete control of the Netherlands. Most of the decisions concerning Suriname were made in The Hague or by the governor⁵⁵.

Science in the early twentieth century

The state of scientific research in Suriname

Throughout the centuries under Dutch rule, the Dutch conducted little scientific research in Suriname. There were few research institutes until the early twentieth century, and a small amount of independent research was organised in Suriname⁵⁶.

The lack of research institutes in Suriname does not mean that scientific research never took place. As was the case in many other tropical countries, research into tropical diseases had taken place throughout the centuries under Dutch rule. Tropical diseases were common and the explorers, adventurers and other Europeans in Suriname looked for cures and medication⁵⁷. To stay alive in the Surinamese hinterland, studying diseases and cures was necessary. As such, it was in the best interest of the European explorers throughout the centuries to study cures for tropical diseases.

Another particularly famous example of what could be scientific research in Suriname is the “Metamorphosis of the Insects of Surinam”⁵⁸, which was published in 1705. Written and illustrated by the German Maria Sibylla Merian, the book consists of illustrations depicting the lives and transformations of Surinamese insects. The book remains well-known for its extraordinary beauty.

Examples of quests for knowledge throughout the Dutch colonial period in Suriname can thus be found. Yet, one remarkable difference between Suriname and – the crown jewel of the Dutch Empire – the Netherlands East Indies, is that scientific research in the East Indies was significantly more organised. As the historian Wim van der Schoor has shown, scientific research in the Netherlands East Indies received much more attention and higher levels of organisation than in Suriname. From halfway through the nineteenth century onwards, the number of private and public research institutions in the East Indies increased significantly. Especially in the field of biology, many research stations were founded to study tropical biology⁵⁹. For Dutch biologists, conducting research in the East Indies for

⁵⁴ Hoeft, *Suriname in the Long Twentieth Century* 46-47.

⁵⁵ Oostindie and Klinkers, *Decolonizing the Caribbean*, 60-61.

⁵⁶ Willem Jan van der Schoor, “Zuivere en Toegepaste Wetenschap in de Tropen : Biologisch Onderzoek aan Particuliere Proefstations in Nederlands-Indië 1870-1940.” (PhD Diss., University of Utrecht, 2012), 185-186.

⁵⁷ Stephen Snelders, *Vrijbuiters van de Heelkunde: op zoek naar Medische Kennis in de Tropen, 1600-1800*. (Amsterdam: Atlas, 2012), 20-22.

⁵⁸ Maria Sibylla Merian, *Metamorphosis Insectorum Surinamensium: Of de Verandering der Surinaamse Insecten*, (Zutphen, Netherlands: Walburg Pers, 1982).

⁵⁹ Van der Schoor, “Zuivere en Toegepaste Wetenschap”, 81-83.

some time became increasingly common. Several famous biologists settled in the Indies for most of their careers and actively stimulated research in the East Indies. The stimulation of biological research in the East Indies did result in more young biologists going to the East Indies. In the 1930s, around 17% of all trained biologists worked in the East Indies. Unlike Suriname, the East Indies was a popular place for scientific research⁶⁰.

The agricultural research station in Suriname

The lack of systematic scientific research in specialised research institutes in Suriname can be seen as surprising, as several well-respected Dutch scientists enthusiastically campaigned for more research in Suriname. For example, the famous botanist Frits Went actively encouraged Dutch scientific research in Suriname in the early twentieth century. Went, known as the ‘pope of the botanists’, was one of the most famous botanists in Europe and beyond. After spending time in Suriname, where he studied cacao and sugar cane diseases, he encouraged the Dutch government to fund a research station for agriculture in Suriname. In 1902, the agricultural research station appeared. However, little research was conducted there⁶¹.

Unlike its counterparts in the East Indies, the agricultural research station in Suriname focused on small-scale agriculture, as this type of agriculture had replaced the former plantation structures⁶². The research station remained severely underfunded, barely receiving any money from the Dutch government. The research station remained largely dependent on private investors, of which there were few. The lack of funds resulted in a lack of researchers to keep the station running and little research output. Lack of funds and support from the Dutch government meant that the research station was significantly less successful than the plethora of research stations in the East Indies⁶³.

Despite the efforts of Went and other scholars, Dutch science in Suriname remained largely unsystematic. The research landscape of Suriname remained negligible. Wim van der Schoor argues that the lack of systematic agricultural research in Suriname could be related to the downfall of large-scale agriculture. Because of the move from plantation agriculture to smaller farms owned by the formerly forced labourers, Surinamese agriculture now consisted of small, family-owned units⁶⁴. There was little coherence between the small units, and this lack of unity made it unattractive to potential investors who would rather support agricultural research on a larger scale. As a consequence of the new way of doing agriculture, Suriname remained with few funds for agricultural research.

⁶⁰ Van der Schoor, “Zuivere en Toegepaste Wetenschap”, 185.

⁶¹ Ibidem, 186,194.

⁶² Janssen, *In Search of a Path*, 8.

⁶³ Van der Schoor, “Zuivere en Toegepaste Wetenschap”, 186.

⁶⁴ Ibidem, 186.

Geography in Suriname

Early explorations in Suriname

Historically speaking, there was one scientific discipline in which Suriname regularly was the topic of European research. Throughout the Dutch rule and even the brief period of English rule, a significant number of (geographical) explorations to the Surinamese hinterland took place. Fascinatingly, finding gold is a recurrent theme in the geographical explorations of Suriname. The first explorations took place in the sixteenth century when the Spanish assumed that El Dorado was in the area that is now Suriname. These explorations often ran into issues because of the density of the Surinamese interior and conflicts with the indigenous population⁶⁵. The density of the rainforests and the relatively high temperatures continued to challenge European explorers throughout the centuries.

The geographic interest in Suriname did not wane. Throughout the seventeenth and eighteenth centuries, Suriname received a plethora of Europeans attempting to map the rivers, flora, fauna, and mountain ranges of Suriname. Almost every decade, at least one group of European explorers organised an expedition to Suriname. The first expeditions with specific scientific goals started in the nineteenth century. In the 1830s, the British explorer Robert Schomburgk sailed down the Courantyne River and documented his observations in a book. A couple of decades later, an expedition organised by the German geologist F. Voltz resulted in a large-scale geological exploration of Suriname and the discovery of gold near the Marowijne River⁶⁶. After several centuries, a significant amount of gold was finally found in Suriname.

Scientific expeditions in the early twentieth century

In the twentieth century, the number of geographical explorations of the Surinamese interior rose significantly. Despite previous expeditions in Suriname, many areas remained unstudied and unknown. For the first time, a significant number of explorations were organised by the Royal Dutch Geographical Society to map the interior. Between 1900 and 1911, eight expeditions to the inland of Suriname took place⁶⁷. The researchers aimed to learn more about the inland of Suriname, map the unknown interior areas, and study the currents of rivers. The geographers also mapped the areas that could be used for mining, to find gold and other precious materials. The eight explorations organised by the Geographical Society went to the Nickerie area, the Coppename River, the Saramacca River, the Gorinie area, the

⁶⁵ Gordijn, Bruijning, and Voorhoeve, *Encyclopedie Van Suriname*), 191.

⁶⁶ Ibidem, 192.

⁶⁷ *De Vraagbaak, Almanak van Suriname 1920*, (H. van Ommeren: Paramaribo, 1919), 67.

Tapanahony River, the Toemoek Hoemak mountain range, the Suriname River, and the Courantyne River⁶⁸.

Many of these expeditions were well-documented. H. van Cappelle, the organiser of the first expedition to the Nickerie district, published an entire book with his conclusions and observations made during the journey⁶⁹. The book contains careful descriptions of the landscape and the often perilous journey the expedition members faced. He also wrote an entire chapter dedicated to the individuals joining the expedition, including the indigenous assistants and guides⁷⁰. Van Cappelle's elaborate descriptions of the journey reflect upon all the details. He describes the difficulties of avoiding boulders in the river and the extraordinary effort that the rowers were put through. As such, van Cappelle's descriptions can be seen as an elaborate observational description of the expedition.

The Nickerie expedition, like the other expeditions, was led by Dutch geographers. Occasionally, other scientists accompany the geographers. Interestingly, the botanist who joined the third expedition (studying the Saramacca River) was connected to the University of Utrecht, August Adriaan Pulle⁷¹. Pulle studied in Utrecht under the watchful eye of his mentor, the earlier mentioned Frits Went. Pulle spent parts of his career working in Suriname, where he studied plant diseases. Like Went, Pulle supported Dutch scientific research in the colonies. He actively encouraged his students to spend time in the East and West Indies for scientific research and to gain experience with tropical plants⁷². Though not as many students went to Suriname as to the East Indies, Went and Pulle did manage to stimulate attention for Dutch research in the colonies.

Though the geographical study of the Surinamese landscape was the primary reason for the expeditions, the secondary reason for studying the formerly undiscovered parts of Suriname was to discover other potential sources of income. On the first expedition to the Nickerie district, the researchers paid attention to potential sources of gold in previously unknown areas⁷³. As gold had been discovered in parts of Suriname from the end of the nineteenth century onward, the expeditions took place in the heat of the Surinamese gold rush. Furthermore, the Surinamese economy had increasingly

⁶⁸ *De Vraagbaak, Almanak van Suriname 1920*, 67-68.

⁶⁹ H. van Cappelle, *De Binnenlanden van het District Nickerie: Lotgevallen en Algemeene Uitkomsten van eene Expeditie door het Westelijk Deel der Kolonie Suriname in September en Oktober van het Jaar 1900*, (Baarn: Hollandia, 1903).

⁷⁰ Van Cappelle, *De Binnenlanden*, 12-13.

⁷¹ *De Vraagbaak, Almanak van Suriname 1920*, 67-68.

⁷² Joseph Lanjouw, *Lanjouw Jubileum Serie : Uitgegeven ter Gelegenheid van het Veertigjarig Ambtsjubileum van J. Lanjouw, 1926-1966*, Mededelingen Van Het Botanisch Museum En Herbarium Van De Rijksuniversiteit Te Utrecht, No. 220-255, (Utrecht: Botanisch Museum en Herbarium, 1966), V-VI.

⁷³ *De Vraagbaak, Almanak van Suriname 1920*, 67-68.

become more dependent on minerals as a source of income, making it unsurprising that the geographical expeditions had a monetary aspect⁷⁴.

The expeditions into the interior became a significant part of scientific research in the first half of the twentieth century. In 1925-1926, a large-scale exploration of the Wilhelmina mountain range took place⁷⁵. In 1948, the Royal Dutch Geographical Society organised an expedition to study the flora and fauna of the Surinamese jungle. This final expedition was significant, as three different groups of scientists were involved. The exploration was, according to a Dutch newspaper, one of the most extensive expeditions in Dutch history⁷⁶.

From the 1930s onwards, several projects started to explore Suriname by air. Some of these projects were scientific, whereas others especially had economic motivations. One of the more scientific ones took place in 1939. The organiser, entomologist Dick Geijskes, would later play a vital role in Wosuna⁷⁷. The air exploration of Suriname he organised aimed to identify suitable areas for landing aeroplanes in the Paroesa savannah and to gain a better perspective on the Tafelberg⁷⁸. After the Tafelberg exploration, several expeditions to the same area organised by Geijskes followed. Some of these expeditions received Wosuna sponsorship and included several vital members of Wosuna.

Aeroplane explorations for economic reasons also started to take place. In 1939, the same year as the first scientific aeroplane exploration, several aeroplane explorations were organised by the Billiton Company, one of the companies that mined bauxite in Suriname, to discover if bauxite could be found in the Marowijne area⁷⁹. Despite the gold rush having died down, expeditions to discover potential mining places remained present in Suriname.

Before Wosuna, Suriname already had a significant history concerning geographical explorations. Throughout the history of these explorations, discovering gold and other valuable ores was often one of the motivations for the expeditions. The monetary aspect of these expeditions is worth noting. It seems that little scientific research took place without some hope that valuable materials could be found. As such, the European (specifically Dutch) desire to make Suriname profitable appears persistent. Rosemarijn Hoefte and Roger Janssen discussed the Dutch efforts to make

⁷⁴ Hoefte, *Suriname in the Long Twentieth Century*, 34-36.

⁷⁵ Oudeschans Dentz, "Suriname." 4.

⁷⁶ Nieuwsblad van Friesland, "Natuurwetenschappelijke expeditie naar Suriname," July 26, 1948, 1.

⁷⁷ Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna): *Report for the years 1954-1959*, (Paramaribo: Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna), 1960), 5.

⁷⁸ Gordijn, Bruijning, and Voorhoeve, *Encyclopedie Van Suriname*, 195.

⁷⁹ Ibidem, 195.

Suriname a profitable colony by creating a plantation economy based on cash crops⁸⁰. The focus on finding gold and valuable ores could also be a way to make Suriname more profitable.

During these expeditions, it is likely that many indigenous Surinamese individuals assisted the Europeans. In van Cappelle's travel journey, he elaborates upon the indigenous people who assisted his expeditions. He dedicates an entire chapter to the expedition staff⁸¹. According to van Cappelle, 54 local staff members joined the scientific crew on the expedition. He admits that without the help of the local populations, the expedition would not have succeeded. Despite the descriptions of the locals and their tasks in the expeditions, he does not tell us their names or any other personal details. In other shorter descriptions of the explorations and expeditions, I have often not found any mention of the indigenous people who assisted. The lack of reflection upon help from local Surinamese people makes it difficult to estimate how much people have assisted and how they got treated.

The birth of Dutch interest in Suriname

The early twentieth century thus saw a significant number of geographical explorations, the foundation of an agricultural research station. As such, scientific interest in Suriname had grown somewhat in this period. The interest in Suriname did not only rise under scientists. The general enthusiasm for the exploration of Suriname can be found in newspaper articles elaborating on the discoveries in Suriname. If we are to believe a 1938 article in the *Arnhemse Courant*, the "interest in Suriname awakens"⁸². The article, which mainly summarises Dutch endeavours in Suriname throughout the early twentieth century, speaks with great enthusiasm about the explorations to the interior of Suriname between 1900 and 1926. The author states that these scientific expeditions are a more general indicator that Suriname has finally piqued Dutch interest. After almost three centuries of being a Dutch colony, scientific explorations and the discovery of minerals in Suriname led to more interest in Suriname. The author concludes that Suriname has a bright future, and that scientific practises in Suriname will result in a prosperous future for Suriname.

The author's vision of the process that Suriname would have a prosperous future might have been overly optimistic, yet it does shed light on the general view of Suriname at the time. The article recognises the lack of scientific and political attention that Suriname had received throughout the early colonial period. What is fascinating is the optimism about the supposed consequences of scientific research in Suriname. The author states that Suriname will receive the fruits of the expeditions and that scientific research will result in prosperity. Based on this article, it would appear that there was

⁸⁰ Janssen, *In Search of a Path*, 1-2 and Hoefte, *Suriname in the Long Twentieth Century*, 46-47.

⁸¹ Van Cappelle, *De Binnenlanden*, 12-13.

⁸² Oudeschans Dentz, "Suriname." 4.

indeed heightened scientific attention for Suriname and that the general notion was that Suriname would become a more prosperous area.

To summarise

The early twentieth century saw a rise in scientific research, especially in the form of geographical expeditions⁸³. Despite repeated efforts by well-respected Dutch scientists, attempts to conduct more agricultural research were relatively unsuccessful. Win van der Schoor offers a potential explanation for this lack of success. The relatively recent move from plantations to small-scale agriculture made it challenging to organize agricultural research⁸⁴.

As Rosemarijn Hoefte explain elaborately in her discussion of the development of the Surinamese economy, the diversification of the Surinamese economy led to an increased focus on mining and the exportation of minerals. However, despite the export of gold, balata, and significantly bauxite, the economic profits mostly went to foreign countries, especially the US. As the US had a monopoly on Surinamese bauxite, the US became a new player in the Surinamese economy⁸⁵. The US and the Netherlands owned most of the means of production of the Surinamese economy. The few economic resources did not contribute to their benefit yet mainly benefitted other countries.

However, several articles in Dutch newspapers in the first half of the twentieth century suggest a greater interest in Suriname as a topic of scientific research⁸⁶. The eight geological expeditions in the first decade of the twentieth century are exemplary for Dutch science in Suriname in this period⁸⁷. Exploring the country for profit and discovering the interior appears to be the reason for scientific actions undertaken in Suriname in the twentieth century. As the importance of exporting mining products was rising, and the profits of agricultural products were going down, it seemed sensible that the Dutch attitude towards Suriname would change to include more scientific research, especially in geography.

⁸³ *De Vraagbaak, Almanak van Suriname 1920*, 67-68.

⁸⁴ Van der Schoor, "Zuivere en Toegepaste Wetenschap", 186.

⁸⁵ Hoefte, *Suriname in the Long Twentieth Century*, 45.

⁸⁶ Nieuwsblad van Friesland, "Natuurwetenschappelijke." 1, and Oudeschans Dentz, "Suriname." 4.

⁸⁷ *De Vraagbaak, Almanak van Suriname 1920*, 67-68.

Chapter 2: The Development of Dutch scientific institutions in Suriname after 1945

Political changes in the Dutch Empire

From the end of the Second World War to the autonomy of the colonies

The Second World War proved a challenging time for the Dutch Empire. The Dutch mainland was invaded by Germany in 1940, forcing the government to flee to London while the Germans took over the daily rule of the Netherlands. The colonies did not fare better. In 1942, Japanese forces infiltrated the East Indies, and the Dutch temporarily lost control over their most precious colony. Suriname and the Antilles remained under Dutch rule, yet the Dutch relied strongly on the Allies to protect these colonial possessions. The lack of control over parts of the Empire did not stop the Dutch government in exile from making decisions concerning the fate of the colonies. Towards the end of the war, the Dutch government decided to refer to the colonies as 'overseas territories' from 1945 onwards, as the term 'colonies' had become outdated at this point. Despite the term 'overseas territories' sounding less imperial than 'colonies', the renaming was largely symbolic and came with few practical changes or liberties for the inhabitants of Suriname, the Antilles, and the East Indies⁸⁸.

International pressure on the Dutch approach to imperialism rose during the Second World War. The Allies, especially the US, pushed for more independence for the Dutch colonies. The Dutch ministers and Queen Wilhelmina hesitated yet slowly realised that the Empire could not continue in its current form after the war⁸⁹. In 1942, Queen Wilhelmina promised the colonies more autonomy and a partnership with the Netherlands based on equality. After the war, it turned out that the decision to grant more autonomy to the former colonies came too late for the East Indies.

The horrible circumstances during the Japanese occupation in the East Indies strengthened anti-Dutch and anti-Imperialist sentiments already present before the war⁹⁰. At the end of 1945, the Indonesian nationalist leader Sukarno declared the independence of the Republic of Indonesia. The Dutch responded with anger and shock to the Indonesian declaration. Refusing to accept Indonesian independence, the Dutch responded with the so-called 'police actions'⁹¹. These actions involved an aggressive Dutch military presence in Indonesia and resulted in the death of thousands of Indonesians

⁸⁸ Oostindie and Klinkers, *Decolonizing the Caribbean*, 64-65.

⁸⁹ Janssen, *In Search of a Path*, 11-12.

⁹⁰ Vickers, *A History of Modern Indonesia*, 87.

⁹¹ *Ibidem*, 102.

and several hundreds of Dutch people. After four years of bloody guerrilla warfare, the Dutch bowed to international pressure and accepted Indonesian independence in December 1949⁹².

The Indonesian independence left the Dutch with the Netherlands New Guinea as their sole territory in Asia. Missing the crown jewel of their colonial empire, the Dutch were forced to turn their gaze to the other side of the world. As Oostindie and Klinkers show, for the first time in the history of the Dutch Empire, Suriname and the Antilles were the most vital overseas territories. For Suriname, an era of more attention from the Dutch government had begun⁹³. Despite now being the focus of the Dutch government, Dutch public interest in Suriname and the Antilles remained low⁹⁴. The loss of Indonesia curtailed the geopolitical power of the Dutch Empire significantly, and it was clear that Suriname and the Antilles would never take the position that Indonesia held in the Dutch Empire.

The new role of Suriname as the largest overseas territory of the Dutch Empire would not last for a long time. After the war, the Dutch government extensively talked to the Surinamese and Antillean governments to develop a type of government acceptable to all parties involved. After the disastrous independence of Indonesia and the general international pressure on the Dutch to release the former colonies, the Dutch were forced to actively engage with Suriname and the Antilles⁹⁵.

Despite international pressure, especially from the United States, allowing Suriname and the Antilles to be more autonomous was slow and painful. In many of the conversations, the Dutch interests appeared of greater importance than those of the Surinamese and the Antillean. Oostindie and Klinkers argue that the wishes of the former colonies were occasionally ignored. Despite the struggles in communication and the lack of Dutch interest, the countries did come to some form of agreement. After years of negotiations, Suriname and the Antilles became autonomous countries within the Kingdom of the Netherlands in 1954⁹⁶. The Kingdom of the Netherlands now existed of three countries: the Netherlands, the Netherlands Antilles, and Suriname.

The rise of Surinamese science

Except for the changes in Suriname's position in the empire, Suriname went through several vital developments after the Second World War. Especially economically, Suriname was going through vital changes. As the plantations were in decline and the bauxite industry was on the rise, there was a greater need to find natural resources to mine. As such, several large-scale development projects came into existence. Often centred around finding new ways of reaching natural resources, these projects

⁹² Vickers, *A History of Modern Indonesia*, 102-104, 116.

⁹³ Oostindie and Klinkers, *Decolonizing the Caribbean*, 64, 72.

⁹⁴ Janssen, *In Search of a Path*, 12-13.

⁹⁵ Oostindie and Klinkers, *Decolonizing the Caribbean*, 64-65.

⁹⁶ *Ibidem*, 76-77, 84.

were economic. Rosemarijn Hoeft notes that preference was often given to economic projects that would cause monetary gain, rather than social or cultural projects⁹⁷. The nature of these economic projects, such as the Brokopondo Push and Project Grasshopper, permanently changed the hinterland of Suriname. Some of these projects and their consequences will be discussed later in this chapter.

The independence of Suriname went hand-in-hand with another development concerning Suriname. The end of the Second World War saw much progress in organised research in Suriname. The efforts of several Dutch research institutions and universities resulted in the Foundation for Scientific Research in Surinam and the Netherlands Antilles⁹⁸ and the Inter-University Surinam and Netherlands Antilles Committee⁹⁹. These were some of the first research organisations to focus on Suriname and the Netherlands Antilles. These organisations were run by Dutch scientists and centred around collecting and stimulating research in and about Suriname and the Netherlands Antilles. The organisations were surprisingly successful and quickly gained members from universities and research institutes across the Netherlands. The inter-university committee became so popular that the organisation grew too large to function effectively¹⁰⁰.

The Second World War appears to have caused a shift in the attitude towards scientific research in Suriname. As the enthusiasm of the Dutch scientific community for the Foundation for Scientific Research in Suriname and the Netherlands and the Inter-University Committee show, Suriname gained scientific attention at the end of the 1940s and the early 1950s. The newfound attention to Suriname seems confusing. Before the war, scientific interest in Suriname had been incidental and was not widespread throughout the Dutch scientific community¹⁰¹.

The cause of this sudden rise of attention for Suriname seems multifaceted. The success of the geographical explorations that happened in the first half of the twentieth century might have contributed to the newfound attention. The expeditions could have inspired some scholars to see Suriname as a potential space for research. The explorations were the first serious attempt at large-scale scientific research in Suriname, and they attracted some attention from the press¹⁰². Consequently, some Dutch scientists could have started to see Suriname as a topic of scientific inquiry after the explorations of the interior of Suriname.

⁹⁷ Hoeft, *Suriname in the Long Twentieth Century*, 96.

⁹⁸ In Dutch: *Natuurwetenschappelijke Studiekring voor Suriname en de Nederlandse Antillen*.

⁹⁹ In Dutch: *Interacademiale Suriname en Nederlandse Antillen Commissie*.

¹⁰⁰ *Netherlands Foundation 1954-1959*, 7.

¹⁰¹ "Gunstig perspectief voor Suriname's opbloei: Ontdekking van bauxiet van grote betekenis," *Twentsch Dagblad Tubantia*, June 15, 1951, 3.

¹⁰² Oudeschans Dentz, "Suriname." 4.

Though there might have been more attention for Suriname in newspapers, I would argue that the independence of Indonesia could have been a factor as well. As the amount of Dutch research in Indonesia before the war was significant, especially in fields such as tropical biology and chemistry, the tensions in Indonesia could have resulted in scientists considering other options for their research¹⁰³. Suriname could potentially be a replacement for Indonesia for tropical research. Though the Surinamese climate and native biodiversity were undoubtedly different from that of Indonesia, Suriname does have a tropical climate. Suriname could potentially replace Indonesia for tropical biology and related research.

Let us return to the organisations founded to stimulate and spread research in Suriname and the Antilles. As the Inter-University Surinam and Netherlands Antilles Committee was growing too large to coordinate research effectively, the committee members created a smaller committee to replace the current one. In 1954, the same year as the Surinamese autonomy within the Dutch empire, they founded the Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna)¹⁰⁴. Keeping much of the staff and the committee's general goals, Wosuna functioned similarly to the committee, yet consisted of fewer people. To properly coordinate and stimulate science, the smaller Wosuna was supposed to function more effectively compared to other committees¹⁰⁵.

To paint a picture of Dutch science in Suriname after the Second World War and the actions of Dutch scientists in Suriname, I will study the history of Wosuna. Wosuna quickly became the most important organisation for Dutch research in Suriname and the Antilles. Wosuna's funds came largely from a yearly contribution from the Dutch government, which was successfully used to coordinate a significant amount of Dutch research in Suriname and the Antilles¹⁰⁶. Despite the organisation focussing on both countries, Suriname did systematically receive more attention from Wosuna than the Antilles¹⁰⁷. Because of the focus on Suriname and the importance of Wosuna for Dutch scientific research in Suriname, Wosuna is an appropriate case study to understand Dutch science in Suriname.

The coming into existence of Wosuna

General organisation of Wosuna

On the 20th of October 1954, Wosuna officially started their activities in the presence of the Dutch prime minister, several members of the Dutch government, representatives of the Surinamese and

¹⁰³ Van der Schoor, "Zuivere en Toegepaste Wetenschap," 82-83.

¹⁰⁴ In Dutch: *Stichting Wetenschappelijk Onderzoek Suriname- Nederlandse Antillen*.

¹⁰⁵ Netherlands Foundation 1954-1959, 7.

¹⁰⁶ Netherlands Foundation 1963, 45.

¹⁰⁷ *Ibidem*, 13.

Antillean governments, and the members of the board of Wosuna. The new chairperson of Wosuna, the botanist Joseph Lanjouw, marked the occasion with a speech in which he reflected on Wosuna's goals and contribution to Dutch, Surinamese, and Antillean science. Wosuna was a vital addition to Dutch research that would allow scholars to gain experience with tropical research and contribute to the knowledge of all three countries in the Dutch Kingdom. He enthusiastically remarks that the coming of Wosuna would allow the three countries in the Kingdom, especially Suriname and the Netherlands, to become even closer than before¹⁰⁸. Lanjouw saw Wosuna as having a vital role in Dutch tropical research and the stimulation of contacts between the different countries in the empire.

Lanjouw elaborates on the requirements for Wosuna sponsorship. Research conducted with Wosuna's funds had to connect to the "scientific work in progress in the country itself, taking the wishes of the national government into account"¹⁰⁹. The research conducted by Wosuna thus had to add to scholarly activity in Suriname and the Antilles. Wosuna also aimed to support the national government of Suriname or the Antilles, and not go against the wishes of the local government. Dutch researchers had to consider the local governments. As the foundation was to support the local governments, Wosuna expected to contribute to the welfare of Suriname and the Antilles. The research conducted with Wosuna's funds thus needed to positively affect Suriname and the Antilles, and coexist with other scientific research in the country.

By sponsoring Dutch research in Suriname and the Antilles, the organisation hoped that the research would stimulate closer contact between the three countries in the Kingdom. By doing research in cooperation with the governments of Suriname and the Antilles and alongside Surinamese and Antillean research, Wosuna hoped to fulfil their second aim: contributing to the welfare of Suriname and the Antilles¹¹⁰. The organisation aimed to add to Dutch research and Surinamese and Antillean welfare by conducting research that was useful to the people of Suriname and the Antilles.

According to Joseph Lanjouw, Wosuna was founded to allow Dutch individuals to conduct tropical research and simultaneously contribute to the welfare of Suriname and the Netherlands Antilles. Lanjouw's speech is filled with optimism and excitement to commence the tropical research under Wosuna. Yet, based on the troubling circumstances concerning science in the Dutch Empire, I wonder if the foundation of Wosuna was not mostly founded as a manner of ensuring the continuation of Dutch tropical research.

¹⁰⁸ Stichting Wetenschappelijk Onderzoek 1954, 9-11.

¹⁰⁹ Ibidem, 11. In Dutch: "*hier te lande in gang zijne wetenschappelijk werk en daarbij rekening houden met de wensen van de landsregering.*"

¹¹⁰ Ibidem, 9-11.

As Oostindie and Klinkers have noted, the attention for Suriname only came into existence in 1949, after the Dutch had irretrievably lost Indonesia¹¹¹. As the Caribbean overseas territories were now the only remaining areas overseas, the Dutch government became more involved with the Suriname and the Netherlands Antilles. The period between the Indonesian independence and the autonomy of Suriname in 1954 was a period in which attention to Suriname was higher, and Dutch scholars could not conduct research in Indonesia anymore with the ease they had in the past. Founding a research organisation in Suriname could potentially be a solution, as it would allow for Dutch tropical research to continue outside of Indonesia.

Looking at the rhetoric and enthusiasm in Lanjouw's speech concerning Wosuna as an organisation for the welfare of Suriname and the Antilles becomes dubious when placed in history. Lanjouw's speech also gives rise to several practical issues. How was Wosuna going to contribute to the welfare of the Antilleans and Surinamese and simultaneously offer Dutch scientists a way to continue their tropical research? The opening speech of Lanjouw does little to specifically reflect on Wosuna's ways to attain their goals.

Who could receive sponsorship?

Despite Wosuna's rather dubious foundation when placed in a historical context, Wosuna did sponsor a significant amount of research in Suriname. Researchers could apply to Wosuna with a plan for the research they aimed to conduct. If Wosuna approved this plan, the researcher could start their work. In most cases, one of the members of Wosuna would act as a coordinator and offer assistance where needed. To qualify for a Wosuna scholarship, the researcher(s) in question had to have Dutch nationality and preferably have a connection to a Dutch institute of higher education. If an individual wanted to use Wosuna sponsorship while not connected to a Dutch research institute, they could do so after Wosuna approved them¹¹². Wosuna aimed to coordinate, stimulate, and assist Dutch researchers in Suriname or the Antilles by offering funds and scientific assistance.

Wosuna was a Dutch organisation that focused predominantly on Dutch scholars researching Suriname and the Antilles. Interestingly, the year reports do not mention any possibility for Surinamese and Antillean scholars to profit from Wosuna scholarships. At first glance, it seems that Wosuna only offered funds to Dutch researchers. However, in a newspaper article in the Surinamese newspaper *Nieuw Suriname*¹¹³, an advertisement for Wosuna mentions that scientifically schooled Surinamese and Antillean individuals can use Wosuna's funds¹¹⁴. According to the article in *Nieuw Suriname*, Antilleans

¹¹¹ Oostindie and Klinkers, *Decolonizing the Caribbean*, 64, 72.

¹¹² Stichting Wetenschappelijk Onderzoek 1954, 11.

¹¹³ In English: *New Suriname*

¹¹⁴ "Subsidie-aanvragen Wosuna," *Nieuw Suriname*, May 11, 1963, Delpher, 8.

and Surinamese people who have received higher education can study in the Netherlands temporarily with funds from Wosuna. The only other condition for this grant to study in the Netherlands is that the Dutch education had to connect to Suriname, “the other Guyanas”, or the Caribbean Islands¹¹⁵. The research done by Antilleans and Surinamese thus had to relate to their own countries, Guyana, or French Guiana¹¹⁶. Based on this newspaper article, it does appear to be possible for non-Dutch people to secure Wosuna grants as long as the funding was for studying Suriname or the Antilles.

The newspaper article is interesting for several reasons. Firstly, the possibility for non-Dutch people to study in the Netherlands while funded by Wosuna remains unmentioned in any of Wosuna’s year reports or any other source concerning Wosuna that I found. Only in the Surinamese newspaper did I come across this piece of information. Strangely, Wosuna chose not to state the possibilities for Surinamese and Antilleans to conduct research in the Netherlands. As an organisation that focuses on cooperation between the three countries in the Dutch Kingdom, the omission of the funds for Surinamese and Antilleans is strange.

The conditions for Surinamese and Antilleans to go to the Netherlands are equally peculiar. Surinamese and Antillean people can go to the Netherlands on a Wosuna grant, yet they get excluded from doing research in their own country. The newspaper article states that “This type of grant is especially meant for Surinamese and Netherlands Antilleans”¹¹⁷, meaning that grants to go to the Netherlands are for non-Dutch inhabitants of the Kingdom of the Netherlands. However, there is no mention of if the Surinamese and Antillean people could study their own country directly. Though it could be possible that one of Wosuna’s goals was to allow people to travel to other parts of the kingdom, it does effectively make it impossible for Surinamese and Antilleans to study their own country directly. The difference in possibilities for Wosuna sponsorship for Surinamese and Dutch people goes against Wosuna’s goals of cooperation and contributing to the welfare of Suriname and the Antilles.

The presence of predominantly Dutch people and the limited opportunities for Antilleans and Surinamese people to use Wosuna sponsorship shows that Wosuna offered more flexibility to Dutch people than Surinamese and Antilleans. As Wosuna was a Dutch organisation, it is perhaps not as surprising. Yet, as Wosuna aspired to contribute to the welfare of Suriname and the Antilles, the decision to focus on allowing Dutch people to study Suriname and the Antilles and not having the same

¹¹⁵ “Subsidie-aanvragen Wosuna,” 8.

¹¹⁶ In the past, Suriname was known as Dutch Guyana, which explains why one could study Suriname or the other Guyanas.

¹¹⁷ “Subsidie-aanvragen Wosuna,” 8. In Dutch: “*Dergelijke subsidies zijn vooral bestemd voor Surinamers en Nederlands-Antillianen.*”

possibility for Surinamese and Antilleans seems strange¹¹⁸. Except for the lack of opportunities for Surinamese and Antilleans, the missing information in the yearly reports about the options for Surinamese and Antilleans scholars to travel to the Netherlands is odd. Wosuna's approach to supporting Surinamese and Antilleans is somewhat dubious based on the lack of information about scholarship opportunities for Surinamese and Antilleans.

Wosuna's approach to sponsoring Surinamese and Antilleans seems peculiar when seen next to Lanjouw's claims that Wosuna had the intention to contribute to the welfare of the Surinamese and Antilleans¹¹⁹. Why would Wosuna not advertise the possibilities for Surinamese and Antilleans more? The lack of mentioning the possibilities for Surinamese and Antillean scholars strengthens the notion that Wosuna's focus was especially on allowing Dutch scholars to conduct tropical research. Lanjouw's speech thus appears to be more rhetorical than presented. Despite Lanjouw's passionate claims that Wosuna would contribute to the welfare of Suriname and the Antilles, Wosuna was especially keen on allowing Dutch researchers to conduct research in the two countries.

The temporal aspect of Wosuna's foundation

Wosuna was founded in a rather turbulent time. As mentioned before, 1954 was the year that Suriname and the Antilles became separate countries within the Kingdom of the Netherlands¹²⁰. Wosuna was thus founded in the year that Suriname and the Antilles gained their autonomy. As Suriname and the Netherlands Antilles received their independence in the same year as the foundation of Wosuna, the focus on allowing the Dutch to study Suriname and the Antilles became strange. Suriname and the Antilles were now independent, and the focus on Dutch research in the other countries of the Kingdom appeared unusual.

Despite the Dutch focus on contributing to the welfare of the other countries in the Kingdom, Wosuna also focused on the importance of tropical research for Dutch students. In Lanjouw's opening speech, he clearly states that the main priority of Wosuna is "to promote the possibility of scientific research in Suriname and the Netherlands Antilles on behalf of Dutch universities and universities of applied sciences"¹²¹. According to Lanjouw, the possibility of Dutch scholars doing research in Suriname and the Antilles is the most vital reason for Wosuna's existence. He furthermore states that Wosuna also allows students "the opportunity to gain tropical experiences at an early stage"¹²². The importance

¹¹⁸ Stichting Wetenschappelijk Onderzoek 1954, 9-11.

¹¹⁹ Ibidem, 9-11.

¹²⁰ Oostindie and Klinkers, *Decolonizing the Caribbean*, 84.

¹²¹ Stichting Wetenschappelijk Onderzoek 1954, 11. In Dutch: "voorop staat de bevordering van de mogelijkheid tot wetenschappelijk onderzoek in Suriname en de Nederlandse Antillen vanwege de Nederlandse universiteiten en hogescholen."

¹²² Ibidem, 11. In Dutch: "in de gelegenheid te stellen reeds vroegtijdig tropische ervaringen op te doen."

of enabling Dutch students and scholars to partake in tropical research was the most essential of Wosuna's aims.

The focus of the foundation of Wosuna was on allowing Dutch people to go and study the countries overseas. The contribution to the welfare of the Surinamese and Antilleans was the secondary goal: "In addition [to allowing Dutch scientific research in Suriname and the Antilles], the foundation aims to ensure that the research it subsidizes matches current scientific work in this country as far as possible, taking into account the wishes of the national government."¹²³ As can be seen in this citation, the focus of Wosuna remains on the Netherlands and ensuring that Dutch tropical research can take place. The possibility for Surinamese and Antilleans to conduct research remains unmentioned in the year reports, which indicates that allowing the Dutch to conduct tropical research in Suriname and the Antilles was considered the most important.

The stress on allowing Dutch researchers to conduct tropical research appears to be a consequence of the events taking place in the 1950s. Lanjouw's speech shows that he realises the importance of tropical research for Dutch biology and other scientific disciplines¹²⁴. The independence of Indonesia, as well as the autonomy of Suriname, could have resulted in a fear of losing the possibility of conducting research in the tropics. The new interest of the Dutch scientific community and the stress of Wosuna on tropical research do seem to display a desire to continue tropical research in an era of insecurity about the decolonisation of the Dutch Kingdom.

The chairperson of Wosuna

If we quickly return to the chairperson of Wosuna, Joseph Lanjouw, it is worth noting that he had a significant amount of ties to Suriname. He was no stranger to conducting research in Suriname. Lanjouw spent much of his career doing plant research in the Dutch overseas territories. He was an enthusiastic member of Wosuna's predecessor, the Inter-University Surinam and Netherlands Antilles Committee¹²⁵. He also was a founding member of the Foundation for Scientific Research in Suriname and the Netherlands Antilles¹²⁶.

Lanjouw was connected to the University of Utrecht, where he studied botany. During his time in Utrecht, he was taught by one of the scientists we met in chapter one, A. A. Pulle. While studying under Pulle, Lanjouw discovered his interest in tropical botany and conducted research abroad.

¹²³ Stichting Wetenschappelijk Onderzoek 1954, 11. In Dutch: "Daarnaast stelt de stichting zich tot doel het door haar gesubsidieerde onderzoek voor zover mogelijk te doen aansluiten bij het hier te lande in de gang zijnde wetenschappelijke werk en daarbij rekening te houden met de wensen van de Landsregering."

¹²⁴ Stichting Wetenschappelijk Onderzoek 1954, 9-11

¹²⁵ Lanjouw, "Lanjouw Jubileum Serie," V-VII.

¹²⁶ Pieter Wagenaar Hummelinck, "Twintig Jaren Studiekring 1945-1965," *New West Indian Guide / Nieuwe West-Indische Gids* 46, no. 1 (1968): 3-11, <https://doi.org/10.1163/22134360-90002246>, 3.

Suriname would remain his main research ground for the rest of his life. Lanjouw succeeded Pulle as a professor in plant taxonomy and geobotany in 1949. In Lanjouw, Pulle found a worthy successor, who continued Pulle's passion for research in Suriname. Throughout Wosuna's ten-year existence, Lanjouw remained chairperson. He also remained active in coordinating and advising botanical research in Suriname and remained a member of the Foundation for Scientific Research in Suriname and the Netherlands Antilles¹²⁷. As such, some of Lanjouw's actions directly impacted Dutch scientific practice in Suriname. Lanjouw thus can be seen as one of the most vital individuals in the history of Wosuna and several other organisations centred around scientific research in Suriname.

Based on Lanjouw's presence in Suriname, the timing of Wosuna's foundation, and the strong stress on Dutch tropical research, I find it likely that Wosuna was founded by Dutch scholars to ensure the continuity of Dutch tropical research. Because of the decolonisation of Indonesia and the potential autonomy of Suriname, Dutch researchers focused on allowing Dutch research in Suriname to continue despite the autonomy and potential full independence. The foundation of Wosuna can be seen as a way for Dutch scientists to justify their presence in Suriname and ensure that Dutch research could take place within the infrastructure Wosuna built for their research.

Research conducted under Wosuna

The board of Wosuna consisted of scholars from different universities in the Netherlands. As the Inter-University Surinam and Netherlands Antilles Committee, the executive committee members of Wosuna were affiliated with multiple Dutch universities and research institutes. Members of Dutch research institutes could become involved with Wosuna, as long as they specialised in topics related to Suriname and the Antilles in a broad sense. The board of Wosuna were, amongst others, experts in tropical biology, linguistics, and geography¹²⁸. As reflected in the board, Wosuna aimed to stimulate research topics in various academic disciplines. Wosuna did not limit itself to the natural sciences, it also coordinated research in the humanities¹²⁹. The organisation thus aimed to stimulate research in many different disciplines and created a broad research output. Wosuna presented the research that received sponsorship in year reports. The year reports give a short description of the research and name the

¹²⁷ Lanjouw, "Lanjouw Jubileum Serie," V-VII.

¹²⁸ Netherlands Foundation 1954-1959, 4-7.

¹²⁹ Wosuna aimed to support research in every academic field that could benefit from research in Suriname and the Antilles. The most significant division in the year reports is between the humanities and the sciences. The sciences are divided into medical and veterinary, physical, and biological sciences. The humanities had no divisions between them, yet mainly included sociological research, history, and linguistics. Based on the disciplines that fall under the humanities category, Wosuna's division would, to modern standards, also include the social sciences.

scholars involved with the study¹³⁰. Usually, a member of the executive board sponsored the study. The designated sponsor would provide the researcher with assistance and advice where needed.

After the foundation of Wosuna, the organisation rapidly started funding several research projects in Suriname and the Netherlands Antilles. In 1954, seven studies, of which five were in Suriname and two in the Netherlands Antilles, received sponsorship from Wosuna¹³¹. Over the years, the number of studies sponsored by Wosuna rose, reaching its peak in 1961 when 30 research projects were approved for sponsorship (23 in Suriname and seven in the Netherlands Antilles)¹³². Overall, Wosuna received 51 requests for funding in 1961. Little over half of the applicants got Wosuna funding. The number of applications for Wosuna sponsorship rose to around 40 every year between 1960 and 1963¹³³. Wosuna usually approved more than half of these requests. In the first two years, almost all requests got approved. These high approval rates could be caused by the lower number of applications for Wosuna sponsorship. The slightly higher numbers of sponsorship applications in the later years are largely due to several multi-year projects. In the case of multi-year projects, Wosuna would sponsor multiple years of research. The researchers did have to apply for funds again for every year of their study¹³⁴.

Throughout Wosuna's existence, several multi-year projects were extraordinarily elaborate. In the Netherlands Antilles, the study "Sociological research in the archives relating to Aruba, Curacao, and Bonaire"¹³⁵ took place between 1956 and 1963. The project consisted of an inventorisation of the General State Archives in The Hague to systematise the information related to the social history of Aruba, Curacao and Bonaire. Two or three studies concerning the Surinamese flora and landscape also continued with Wosuna sponsorship for multiple years. The studies "Study of the flora, vegetation and geomorphology of the Emma Range, Surinam" and "Botanical study of Surinamese savannas, in particular the clay savannas with *Curatella americana* of the Zanderij and Croesewijne areas, and the savannas with a rocky substratum of the Sabanpassie type" lasted five and six years respectively. These two studies were conducted by PhD researchers using Wosuna sponsorship to research to complete their doctoral thesis¹³⁶.

¹³⁰ See any of the yearly reports, for example, Netherlands Foundation 1963, 14-41

¹³¹ Stichting Wetenschappelijk Onderzoek 1954, 17-19.

¹³² Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna): *Report for the year 1961*, (Paramaribo: Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna), 1962), 11.

¹³³ Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna): *Report for the year 1963*, (Paramaribo: Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna), 1964), 13.

¹³⁴ Netherlands Foundation 1963, 13.

¹³⁵ *Ibidem*, 28, and Netherlands Foundation 1961, 21.

¹³⁶ Netherlands Foundation 1963, 22-23.

As the examples in the previous paragraph show, Wosuna sponsorship could be requested for many different types of studies, as long as there was a clear connection to Suriname or the Netherlands Antilles. The funds that Wosuna needed to sponsor the significant amount of studies, came almost entirely from the Dutch government, with some minor contributions from the governments of Suriname and the Antilles. The sum Wosuna received from the Dutch government was substantial. In 1961, Wosuna received 260,000.00 Dutch guilders. Nowadays, this would add up to around 949,043.68 euros¹³⁷. In 1963, Wosuna's income from the Dutch government was slightly higher at 289,565.13. The contributions from the Surinamese and the Antillean governments were less substantial, but not negligible¹³⁸. In 1961, the Surinamese government contributed 6,940.00 Dutch guilders¹³⁹ and the Netherlands Antilles government gave 2,000.00 Dutch guilders¹⁴⁰. As this would contribute to 32,632.50 euros nowadays, the contribution of the Surinamese and Antillean governments remains noteworthy. Overall, the yearly income of Wosuna was around 290,000.00 guilders¹⁴¹ in the early 1960s.

Emphasis on Suriname

Despite Wosuna presenting itself as an organisation that contributed to the welfare of both Suriname and the Antilles, the amount of research funded was unequally divided between the two countries. In the year reports, it becomes clear that noticeably more research was funded in Suriname when compared to the Netherlands Antilles. Though the focus on Suriname remains unmentioned in the year reports, the amount of research conducted in Suriname and the Antilles does confirm that more studies took place in Suriname. On average, the amount of studies sponsored in the Antilles was about half of the amount in Suriname. From 1954 to 1964, when Wosuna was active, 148 research projects received sponsorship to study Suriname and 55 in the Netherlands Antilles¹⁴². In terms of the number of studies sponsored, Suriname received more sponsorship than the Antilles.

The challenges of conducting scientific research on small islands did not escape the Dutch scientists connected to Wosuna. Some information suggests that Wosuna focused more on Suriname than the Antilles for this very reason. The Dutch newspaper *Algemeen Dagblad* states that the president and the vice-president of Wosuna confirmed that Suriname would be the foundation's

¹³⁷ I calculated this using the rather nifty *Prijzen toen en nu* calculator from the Dutch Bureau of Statistics (CBS): <https://www.cbs.nl/nl-nl/visualisaties/prijzen-toen-en-nu> consulted on the 4th of July 2023. The price is converted to the 2022 value in euros.

¹³⁸ Netherlands Foundation 1961, 35.

¹³⁹ The original contribution was 3,470 Surinamese guilders. The members of Wosuna calculated that this would be around 6,940.00 Dutch guilders.

¹⁴⁰ Wosuna calculated that 1,000.00 Netherlands Antillean guilders contributed to about 2,000.00 Dutch guilders.

¹⁴¹ This would contribute to more than 1,000,000.00 euros nowadays.

¹⁴² Netherlands Foundation 1963, 13.

focus¹⁴³. President Joseph Lanjouw and vice-president Jan Pieter Bakker stated that centralised research in Suriname is easier to conduct. Lanjouw and Bakker furthermore state that Suriname had a higher biodiversity than the Antillean islands, making research in Suriname more appealing for researchers¹⁴⁴. Based on high biodiversity and the better possibilities to coordinate research in Suriname, the newspaper article concludes that Wosuna would have an “emphasis on Suriname”¹⁴⁵. Suriname thus would be the focus of Wosuna, as research in Suriname was more convenient to centralise, and Suriname had a higher level of biodiversity.

Despite the focus on Suriname, Wosuna quickly became an influential organisation for science in all counties of the Kingdom of the Netherlands¹⁴⁶. The organisation was almost fully sponsored by the government of the Netherlands. Most of these funds were directly used to sponsor research in Suriname and the Antilles¹⁴⁷. With an income of around one million a year, Wosuna funded several large-scale research projects in the ten years the foundation existed¹⁴⁸.

Surinamese and Antilleans on Wosuna projects

Wosuna thus became an impactful organisation for Dutch tropical research. Despite Wosuna’s hesitation to advertise the sponsoring of Surinamese and Antillean researchers, the organisation did receive positive attention from Surinamese newspapers. On several occasions, the Surinamese newspapers *Nieuw Suriname* and *De Surinamer*¹⁴⁹ wrote about research conducted by Wosuna. The newspaper also updated its readers on recent actions undertaken by the organisation in Suriname. The topics discussed in these articles vary. Mostly, these articles inform the reader of some recent investigations¹⁵⁰, or how to apply for a Wosuna scholarship¹⁵¹.

Some of these newspaper articles have strong similarities to the yearly reports. These similarities especially lie in the brief descriptions of various studies conducted by Wosuna. A 1963 article in *Nieuw Suriname* presents four studies currently under Wosuna sponsorship¹⁵². The article briefly describes the goal of certain research, introduces the researchers conducting the study, and

¹⁴³ “Wosuna opent haar deuren,” *Algemeen Dagblad*, October 20, 1954, Delpher, 3.

¹⁴⁴ “Wosuna opent.” 3.

¹⁴⁵ In Dutch: “*Accent op Suriname*”.

¹⁴⁶ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4.

¹⁴⁷ Netherlands Foundation 1963, 45.

¹⁴⁸ Stichting Wetenschappelijk Onderzoek 1954, 9-11.

¹⁴⁹ In English: The Surinamese [person].

¹⁵⁰ “Activiteiten Stichting Wosuna in Suriname – 1963,” *Nieuw Suriname*, December 9, 1963, Delpher, 1. and “Bosonderzoekingen voor Wosuna,” *De Surinamer*, October 13, 1954, Delpher, 3.

¹⁵¹ “Subsidie-aanvragen Wosuna,” 8.

¹⁵² “Activiteiten Stichting Wosuna.” 1.

presents some general information about the procedure. As such, the article is similar to the information concerning studies conducted by Wosuna as described in the yearly reports.

Except for many similarities, the writers of the newspaper articles occasionally take a different approach to summarising the studies. A strong contrast between one newspaper article and the yearly reports lies in the description of the contribution of the local population. After describing the Wosuna studies, the author mentions that locals were involved in the research. The first research in the *Nieuw Suriname* article concerns an ethnographical study into the jobs of Surinamese primary school graduates. The author notes that the study is “assisted by some local aides”¹⁵³. The assistance of locals implies that Surinamese individuals were involved in the research. The description of the same research in Wosuna’s year report of 1963 does not mention any assistance¹⁵⁴. The presence of locals is mentioned in several other Wosuna studies described in the article. The mention of locals forms a direct contrast with the Wosuna year reports, in which only the scholar conducting the study and the Wosuna sponsor received a mention.

The presence of locals and assistants receives little to no attention in the yearly reports. The scientists and Wosuna sponsors are presented, yet local help or local scientists are not mentioned by Wosuna. While reading the year reports, one might get the impression that there was almost no interaction with the local population during the research. However, the newspaper article shows that locals assisted with the research and the logistics surrounding the studies. As such, it appears that the newspaper article paints a different picture of the work done by Wosuna that relies much more on local involvement than is displayed in the yearly reports. The *Nieuw Suriname* article shows that the local population of Suriname was, in various ways, much more involved with Wosuna than suggested in the year reports.

Wosuna’s lack of notifying their audience concerning local (scientific) assistance is rather strange when considered that Wosuna presented itself as an organisation that aimed to support the Surinamese and Antilleans. Wosuna did not present Surinamese and Antillean assistance, yet did present Dutch researchers working on the projects, which seems to imply that the prestige of the Dutch scientists mattered more to Wosuna than a full representation of the research. The picture created by Wosuna is incomplete whereas I would expect an organisation focused on cooperation between Suriname, the Antilles, and the Netherlands to acknowledge Surinamese and Antillean assistance in their research. In the presentation of Wosuna’s research, the focus is more on showing the actions of Dutch scientists than showing the Surinamese and Antilleans involved with the research.

¹⁵³ Activiteiten Stichting Wosuna.” 1. In Dutch: “geassisteerd door enkele lokale hulpkrachten.”

¹⁵⁴ Netherlands Foundation, 1963, 14.

Wosuna in action

The Brokopondo Research Project

Despite the occasionally incomplete information presented in the year reports, the amount of research Wosuna organised and sponsored is impressive. In daily practice, the members of Wosuna assisted and supervised Dutch researchers in Suriname¹⁵⁵. To paint a picture of a project supported by Wosuna, I will elaborate on one of Wosuna's most important research projects: the Brokopondo Research Project. This project shows the scale of the research projects supported by Wosuna, and the various factors that were occasionally involved in the research projects Wosuna sponsored¹⁵⁶.

To discuss the importance of this project for both Wosuna and Suriname, some background information is necessary. In the early 1960s, the Surinamese export of bauxite and aluminium remained the most vital aspects of the Surinamese economy¹⁵⁷. To yield energy for the production of aluminium and alumina from bauxite, the Surinamese government and the Suriname Aluminium Company (SURALCO)¹⁵⁸ decided to start constructing a barrage in the Suriname River to construct a hydroelectric power station. This barrage, built close to the Brokopondo area in the northwest of the country, would interrupt the stream of the Suriname River. Because of the interruption of the river, an artificial lake would eventually come into existence as the river flow was permanently interrupted by the dam. The construction of the barrage would thus lead to significant changes in the landscape around Brokopondo. Because of the consequences for the ecosystems surrounding the river and the biological changes connected to the construction of the barrage, the Executive Board of Wosuna decided to sponsor large-scale biological research into the area. The board employed four biologists with different specialisations to research the Brokopondo area.

The Brokopondo research was a collaborative research project. While conducting the various studies, Wosuna received assistance from the SURALCO, the District Officer of the Brokopondo area, and a specifically founded committee. In the Netherlands, the "Comissie Nederland voor het Stuwmeeronderzoek in Suriname" (Netherlands Committee for Research in Artificial Lakes in Surinam)¹⁵⁹ supported and coordinated the research¹⁶⁰. The members also had connections to scientists in other countries. Several non-Dutch scientists were concerned with the Brokopondo area,

¹⁵⁵ Netherlands Foundation 1954-1959, 7-8.

¹⁵⁶ Netherlands Foundation 1963, 20-22.

¹⁵⁷ Hoefte, *Suriname in the Long Twentieth Century*, 114.

¹⁵⁸ This company was formerly known as the *Surinaamse Bauxiet Maatschappij*. SURALCO remained a subsidiary of ALCOA.

¹⁵⁹ Netherlands Foundation 1963, 21-22.

¹⁶⁰ The newly founded committee consisted largely of members who were on the Executive Board of Wosuna as well. Of the seven members of the Netherlands Commission for Research in Artificial Lakes in Suriname, three were also on the board of Wosuna.

which resulted in scientific connections with the *Hydrobiologische Anstalt der Max-Planck-Gesellschaft* and the London Nature Conservancy¹⁶¹. The Brokopondo Research Project was an extraordinary undertaking that lasted many years. The project even outlived Wosuna, as it took until 1969 to finish.

Wosuna initially employed four scientists to conduct research in the Brokopondo area. The four scientists involved in the project focused on various biological topics. P. Leentvaar, the first researcher to arrive in Suriname, was a hydrobiologist. Over his one-year stay in Suriname, he studied the flora and fauna surrounding the Suriname River. A second researcher sponsored by Wosuna joined him shortly after. Another hydrobiologist, J. van der Heide assisted Leentvaar and continued the research after Leentvaar went back to the Netherlands. In the period that Leentvaar and van der Heide were in Suriname, the barrage in the river was completed¹⁶². The two researchers extensively compared the data they collected before and after the closing of the barrage¹⁶³. They measured the pH value of the water, the level of oxygen, and the temperature and on a regular basis to discover the influence of the dam on the water¹⁶⁴. After the first year, Leentvaar published a report of their findings in which they compared the flora and fauna surrounding the barrage area before and after the closing of the barrage. They concluded that there were significant changes, especially in the types of algae that occurred in the newly-formed lake and the fish population¹⁶⁵.

The two other scientists Wosuna employed arrived at the end of 1963. M. Broeseman studied the fauna surrounding the Brokopondo area, especially the fish populations in the river and the artificial lake. In his research, Broeseman focused on the *Hypostomus Lacépède*, a species of fish present in the Suriname River before the closing of the barrage¹⁶⁶. According to Broeseman, the closing of the barrage had a “disastrous effect on the fish fauna, including the *Hypostomus* species there”¹⁶⁷. The final scientist, J. van Donselaar studied the botanical changes in the area¹⁶⁸. He studied the first three years of the lake’s development and the consequences of the rising water levels for the plants in previously dry areas. He concluded that the plant species that were successful in the newly-formed lake were

¹⁶¹ Netherlands Foundation 1963, 22.

¹⁶² Netherlands Foundation 1963, 21.

¹⁶³ P. Leentvaar, “Hydrobiological Observations in Surinam with Special Reference to the Man-made Brokopondo Lake”, *Studies on the Fauna of Suriname and Other Guyanas* 15, no. 1 (January 1975): 1–173, 7-8.

¹⁶⁴ Leentvaar, “Hydrobiological Observations”, 31-34.

¹⁶⁵ *Ibidem*, 107.

¹⁶⁶ M. Boeseman, “The Genus *Hypostomus* Lacépède, 1803, and Its Surinam Representatives (Siluriformes, Loricariidae)”, *Zoologische Verhandlungen* 99, no. 1 (January 1968): 1–89.

¹⁶⁷ Broeseman, “The Genus *Hypostomus* Lacépède”, 23.

¹⁶⁸ Netherlands Foundation 1963, 22. See also Johannes van Donselaar, “Water and Marsh Plants in the Artificial Brokopondo Lake (Surinam, S. America) During the First Three Years of Its Existence”, *Mededelingen van het Botanisch Museum en Herbarium van de Rijksuniversiteit te Utrecht* 299, no. 1 (January 1968): 183–196.

species that grew on the tops of drowned trees. The number of floating plant species also grew as these could float on top of the water¹⁶⁹. All four scientists thus concluded that the biodiversity of the area completely changed over a few years

These four researchers started an elaborate investigation into the consequences of the artificial lake coming into existence. When the Wosuna-sponsored research ended, Brokopondo Lake remained a topic of research. Through the 1960s, studies sponsored by other organisations continued. Even in 2007, Brokopondo Lake was studied by researchers from the University of Suriname and the University of Lyon to discover the biological conditions of the Brokopondo Lake area 40 years after the closing of the dam¹⁷⁰. The interest in Brokopondo Lake as a subject of study continues to this day.

Economic and scientific consequences of the Brokopondo barrage

Returning to the research conducted under Wosuna, the Brokopondo Research Project is an excellent example of the many factors that influenced scientific and economic development in Suriname in the 1960s. The construction in the Suriname River shows the economic importance of bauxite for Suriname. As bauxite remained vital for the Surinamese economy, the decision to construct a dam and significantly alter the nature surrounding the Brokopondo area seems understandable. For Wosuna, the barrage was an excellent opportunity to study the biological consequences of drastically changing the course of a river. As the Brokopondo Lake would encompass a not negligible amount of land, the effect of the barrage on the Surinamese landscape and biosphere was enormous¹⁷¹. Though the consequences were not necessarily positive, as was stated clearly by Broeseman in his faunistic research, the biological study of the Brokopondo area was a valuable opportunity to discover the change in biodiversity and landscape.

The Brokopondo Research Project and the construction of the hydroelectric power station show some continuation of older patterns concerning the governing and decision-making processes in Suriname. More specifically, the lack of Surinamese involvement in essential decisions is displayed. The construction of the barrage was instigated by SURALCO. Despite the name of the company suggesting that this was a Surinamese national company, SURALCO was a subsidiary of ALCOA¹⁷². ALCOA is a US-based company and much of the profit made by the Suriname Aluminium Company ended up in the United States, rather than Suriname. As the US held significant power in the winning and exporting of

¹⁶⁹ Van Donselaar, "Water and Marsh Plants", 194.

¹⁷⁰ Jan Mol, Bernard de Mérona, Paul Ouboter & Shamita Sahdew, "The fish fauna of Brokopondo Reservoir, Suriname, during 40 years of impoundment", *Neotropical Ichthyology* 5, no. 3 (2007): 351-368, DOI: 10.1590/S1679-62252007000300015.

¹⁷¹ Broeseman, "The Genus *Hypostomus* Lacépède", 23.

¹⁷² Hoefte, *Suriname in the Long Twentieth Century*, 113.

Surinamese bauxite and aluminium, the US was one of the major beneficiaries of the creation of the barrage.

However, not only the US profited from the Surinamese Bauxite Company. Rosemarijn Hoefte notes that since the 1920s, the management of SURALCO, formerly known as the *Surinaamse Bauxiet Maatschappij* (SBM), had largely been in Dutch hands. In the 1960s, while the barrage was under construction, the management of the SURALCO remained predominantly white and European¹⁷³. The journalist Hans Buddingh' notes that the engineer who recommended the construction of the dam was Dutch as well¹⁷⁴. As such, it becomes clear that in the making of vital decisions in Suriname, the Netherlands remained deeply involved. The decisions surrounding the barrage were made by foreigners holding the most vital positions in SURALCO. Throughout the construction, the US and the Netherlands continuously profited and made decisions concerning the hydroelectric power station and the export of bauxite and aluminium.

Despite US-American and Dutch individuals pulling the strings during the Brokopondo construction, the results of the power station and the barrage for the growth of the bauxite and aluminium industry were vital for the inhabitants of Suriname. The highest growth of income in Suriname in the twentieth century, both nationally and per capita, was recorded after the construction of the power station. Economically speaking, the Surinamese profited remarkably from the barrage. Yet, the affair does display the lack of Surinamese executive power in their own country. The influence of the Dutch was especially tangible during the construction of the barrage, as the managers of the SBM and later SURALCO were mostly Dutch or of Dutch heritage¹⁷⁵. As Suriname was an autonomous nation in the Kingdom of the Netherlands, the Dutch influence in the process shows that the Dutch intermingling in Suriname continued after the decolonisation of the Dutch Empire. Despite the Surinamese economy greatly profiting from the construction of the hydroelectric plant, the decisions concerning its construction were not made by the Surinamese.

One aspect of the foreign intervention that makes the situation even more intricate lies in the notion that the foreign decision-makers did not have to live with the consequences of the barrage. As mentioned elaborately by all scientists studying the changes in nature in the Brokopondo area after the construction of the dam, the blocking of the river changed the area thoroughly¹⁷⁶. The biodiversity and ecosystems of the Brokopondo area changed without the possibility of returning to the state before

¹⁷³ Ibidem, 118-119.

¹⁷⁴ Buddingh', *Geschiedenis van Suriname*, 306.

¹⁷⁵ Hoefte, *Suriname in the Long Twentieth Century*, 118-119.

¹⁷⁶ See, amongst others, Broeseman, "The Genus *Hypostomus* Lacépède", 23, and Leentvaar, "Hydrobiological Observations", 107.

the constricting of the river flow. Decisions made by the Surinamese governments, yet strongly influenced by foreigners changed the biological composition of an area of 1350 square kilometres in Suriname¹⁷⁷.

One further direct consequence of the Brokopondo artificial lake was the removal of 27 Maroon villages in the Brokopondo area. Rosemarijn Hoefte states that approximately 6,000 Maroons had to relocate in favour of the hydroelectric power station¹⁷⁸. As such, some of the inhabitants of Suriname were removed from their villages and had to look for housing and work elsewhere. The construction of the hydroelectric dam and the artificial lake thus actively forces Surinamese people from their homes. The choices made in the process of constructing the hydroelectric station show, as Hoefte mentions, that the economy was deemed of greater importance than social considerations. The construction of the hydroelectric research station took place even though many Maroons had to move from the areas in which they had traditionally lived¹⁷⁹.

Based on the Wosuna year report of 1963, Wosuna saw the construction of the Brokopondo barrage as a unique research opportunity. In the year report, many organisations and societies are mentioned to thank them for their help in the research. The number of organisations involved in the project, as well as the four researchers that Wosuna sponsored over multiple years suggest that Wosuna especially saw the building of the barrage as an opportunity for Dutch research and acquiring knowledge. There is little reflection on the drastic consequences the building of the dam had for the inhabitants of Suriname¹⁸⁰. The interest from Wosuna seems to be limited to the possibilities for Dutch research, with no mention of the loss of biodiversity or reflections upon the actions of SURALCO.

Surinamese involvement in the Brokopondo Research project

Except for the lack of reflection upon the consequences for nature and the Maroons in the Brokopondo area, Wosuna also does not mention the local population involved in the Brokopondo Research project. As mentioned, the project initially included four biologists with various specialisations. They were to study the biological consequences of the new artificially constructed lake near the Brokopondo area in Suriname. In the year report, the project is described meticulously. All scientists involved are introduced, and even their wives and children receive a mention. The year report also mentions several other scientists and organisations that helped during the investigations, and elaborately thanks them for their involvement in the project¹⁸¹. However, there is no mention of any local assistants or aides.

¹⁷⁷ Netherlands Foundation 1963, 22.

¹⁷⁸ Hoefte, *Suriname in the Long Twentieth Century*, 96.

¹⁷⁹ Hoefte, *Suriname in the Long Twentieth Century*, 96.

¹⁸⁰ Netherlands Foundation 1963, 21- 22.

¹⁸¹ *Ibidem*, 21-22.

Despite the detailed description of the project and the individuals and organisations involved, there is no mention of any involvement from locals in the Brokopondo research project.

Unlike the 1963 yearly report, a newspaper article in *Nieuw Suriname* does mention local involvement in the Bronkopondo research. Despite describing the research project and the people involved in much less detail, the article mentions the involvement of several groups of people that will be involved in the project to offer assistance. The writer states that “Various motorists, skippers, assistants, etc. will also be employed”¹⁸². The writer spends about as many words on the researchers as they do on the locals offering assistance and working for the scientists.

The descriptions of assistance and use of the expertise of the local population in the newspaper article show gaps in the information presented in the yearly reports. The newspaper descriptions display that Wosuna-sponsored studies used local researchers and individuals to work and assist the research. Though I only found one newspaper article that presented the assistance offered by the Surinamese population in such a clear way, it does show that locals were assisting in the research, which remains unmentioned in the year reports of Wosuna¹⁸³.

The presence of locals and assistants receives little to no attention in the yearly reports. The scientists and Wosuna sponsors are presented, yet local help or local scientists are not mentioned by Wosuna. While reading the year reports, one might get the impression that there was almost no interaction with the local population during the research. However, the newspaper article shows that locals assisted with the research and the logistics surrounding the studies. As such, it appears that the newspaper article paints a different picture of the work done by Wosuna that relies much more on local involvement than is displayed in the yearly reports. The *Nieuw Suriname* article shows that the local population of Suriname was, in various ways, much more involved with Wosuna than suggested in the year reports.

The lack of reflection from Wosuna concerning the inhabitants of Suriname and the focus on scientific research is perhaps not strange. Considering that Wosuna’s main goal was to stimulate Dutch scientific research in Suriname, the construction of the barrage and the coming into existence of the artificial lake could be seen as an excellent research opportunity¹⁸⁴. The research could contribute to understanding the changes in the landscape and biodiversity in the area. As such, Wosuna’s research might actively contribute to the well-being of individuals living in the Brokopondo area. However, as there is no reflection in the year report on the reasoning behind the large-scale research project, the

¹⁸² “Activiteiten Stichting Wosuna.” 1. In Dutch: “*Verschillende motoristen, bootlieden, assistenten, e.a. zullen ook in dienst treden.*”

¹⁸³ “Activiteiten Stichting Wosuna.” 1.

¹⁸⁴ Netherlands Foundation, 1963, 21-22.

notion that the research was conducted specifically for the benefit of the Surinamese people becomes questionable.

The Brokopondo Research Project displays the power dynamics between the Netherlands, Suriname, and the US. The main reason for the construction of the barrage was to ensure economic growth by producing and exporting more aluminium. Constructing the dam was a decision taken by the Surinamese government, yet strongly influenced by a subsidiary company of the US company ALCOA, which was largely under Dutch rule¹⁸⁵. It appears there was limited influence from the Surinamese despite the reality that the Surinamese nature was impacted by the construction of the barrage and the consequential lake. The changes in nature surrounding the Brokopondo area were seen as a potential opportunity to do research¹⁸⁶. The Brokopondo Research Project can thus be seen as a consequence of economic decisions made largely by non-Surinamese people that Wosuna used to conduct scientific research.

Wosuna's Brokopondo Research Project shows that many vital decisions concerning the Surinamese future were continuously strongly connected to the Netherlands and the US¹⁸⁷. Despite Suriname being an autonomous country, the Netherlands remained involved in Suriname both economically and scientifically. Suriname was continuously dependent on foreign countries that held a significant amount of power over the Surinamese economy. The dependence on foreign countries and the lack of autonomy can be seen as a continuation of Suriname's past as a Dutch plantation economy. Considering scientific research, Wosuna's approach towards the drastic changes in nature in Suriname shows that the foundation mainly saw the potential to research the floristic and faunistic changes in the Brokopondo area¹⁸⁸. Wosuna's focus appears to be the ability to study the natural consequences, rather than taking an interest in the future of the Brokopondo area.

Operation Grasshopper

Though not organised by Wosuna, Operation Grasshopper is worth discussing as several of Wosuna's members were involved with it. Operation Grasshopper is one of the large-scale economic projects organised in the late fifties. Operation Grasshopper centred around the construction of seven airstrips in the Surinamese hinterlands. From these airstrips, aeroplanes flew over the interior in the hope of finding areas for the mining of natural resources¹⁸⁹. The project thus consisted of the construction of airstrips and an aerial exploration of the interior of Suriname.

¹⁸⁵ Hoefte, *Suriname in the Long Twentieth Century*, 113-118.

¹⁸⁶ Netherlands Foundation 1963, 21- 22.

¹⁸⁷ Hoefte, *Suriname in the Long Twentieth Century*, 118.

¹⁸⁸ Netherlands Foundation 1963, 21- 22.

¹⁸⁹ Hoefte, *Suriname in the Long Twentieth Century*, 96.

Operation Grasshopper was a large-scale infrastructure project that required significant knowledge and restructuring of parts of the interior of Suriname. As such, the project attracted the attention of several explorers and scientists. One of the individuals involved with Operation Grasshopper was Dick Geijskes. Geijskes was strongly involved with Wosuna and had experience exploring Suriname by air. As mentioned in Chapter 1, Geijskes had flown around Suriname before to gain a better understanding of the landscape. Despite not being a member of the Executive Board of Wosuna, Geijskes was on Wosuna's Advisory Board and was the director of the Surinamese Museum¹⁹⁰ which was based in the same building as the Wosuna headquarters¹⁹¹. He stimulated and conducted a significant amount of research in Suriname, where he spent most of his career. There was not a direct connection between Wosuna and Operation Grasshopper, yet there were indirect connections through Dick Geijskes and other Dutch scientists involved with the project.

Like the Brokopondo Push, Operation Grasshopper centred around significant developments in infrastructure to gain economic profits from mining natural resources. Another similarity with the Brokopondo Push is that Surinamese people were put in a challenging position because of the actions in the interior of Suriname. Operation Grasshopper, which was supported by Dutch scientists, significantly changed the way of life of the indigenous Surinamese people¹⁹² living in the area where the airstrips were constructed. As some missionaries were involved with Operation Grasshopper, many of the indigenous peoples ended up converting to Christianity. Consequently, several tribes lost their customs, languages, and other essential parts of their culture¹⁹³. Operation Grasshopper significantly impacted the lives of the indigenous peoples living in the surrounding areas of the airstrips.

As was the case with the Brokopondo Push, Operation Grasshopper required many individuals to either relocate or significantly influence their way of existing. The potential economic benefits came at the cost of the well-being of Surinamese individuals who were not involved in the decision-making process. Both projects were influenced by Dutch scholars who contributed their knowledge to gain research possibilities. The Brokopondo Research Project and Operation Grasshopper show that Dutch scientific prestige and research possibilities were occasionally deemed more important than the inhabitants of Suriname and the Surinamese flora and fauna.

¹⁹⁰ In Dutch: Surinaams Museum

¹⁹¹ Stichting Wetenschappelijk Onderzoek 1954, 6.

¹⁹² With indigenous Surinamese people, I refer to the descendants of the inhabitants of Suriname before the arrival of the Europeans. In the literature, these people are referred to as Amerindians, yet this term seems outdated to me.

¹⁹³ Hoefte, *Suriname in the Long Twentieth Century*, 97.

Wosuna in Suriname

Wosuna's attitude towards Suriname

As the Brokopondo Research Project already showed, the Dutch still had significant influence over vital decisions made in Suriname. Within Wosuna, the interests of the Dutch were better represented in both the research conducted and the executive board. The Executive Board of Wosuna consisted predominantly of Dutch scholars based in the Netherlands and connected to Dutch universities. The one Surinamese professor on the Executive Board of Wosuna, R. A. J. van Lier, gained his credentials in the Netherlands and taught at the University of Leiden. Though the advisory committee of Wosuna did consist of several Surinamese people based in Paramaribo, the individuals responsible for running the organisation were predominantly Dutch¹⁹⁴. Despite Wosuna focusing on cooperation and welfare for the Surinamese and Antilleans, few locals were present on the board of Wosuna.

The presence of Surinamese and Antillean researchers and assistants also remains a contested point. In the year reports, there are barely any mentions of local assistants and researchers. Surinamese newspapers fill some of the gaps by mentioning the locals contributing to the Wosuna-sponsored studies¹⁹⁵. Yet, the lack of recognition of the active involvement of Surinamese and Antillean researchers shows that Wosuna remained especially focused on Dutch researchers and presenting their results

To summarise

Wosuna's main goal was the stimulation and coordination of tropical research in Suriname and the Netherlands Antilles. Contributing to the wishes of the Surinamese and Antillean peoples was a secondary aim of the organisation¹⁹⁶. The Dutch valued their need for scientific research over the importance of developing Surinamese or Antillean science. The Brokopondo Research Project is an example of these dynamics in which the continuous importance of the US and the Netherlands in vital economic decisions becomes visible¹⁹⁷. Another important aspect to note is the significant amount of Dutch people compared to Surinamese and Antillean people on the board of Wosuna. The lack of Surinamese and Antilleans also suggests that Wosuna represented the Dutch interests more than the Surinamese and Antillean ones. What further strengthens the notion that the Dutch interest was seen as more vital is the lack of mentioning the assistance offered by locals. The Surinamese research

¹⁹⁴ Stichting Wetenschappelijk Onderzoek 1954, 5.

¹⁹⁵ "Activiteiten Stichting Wosuna." 1.

¹⁹⁶ Stichting Wetenschappelijk Onderzoek 1954, 11.

¹⁹⁷ Hoefte, *Suriname in the Long Twentieth Century*, 118-119.

landscape continued to exist out of Dutch researchers, and the Surinamese researchers present received little credit.

Despite Wosuna holding Dutch interest in the highest regard while conducting research in different countries, the organisation did produce a significant amount of scientific research in Suriname. The organisation successfully stimulated more Dutch research in Suriname and helped researchers by assisting and funding them. The research conducted by Wosuna does appear to have value for the inhabitants of Suriname and the Antilles. Some of the included studies, such as those concerning Caribbean languages, could be useful to the inhabitants of Suriname and the Antilles¹⁹⁸. Wosuna thus valued conducting Dutch research in the tropics above all else, yet they did stimulate the development of research that would be useful for Suriname.

¹⁹⁸ Netherlands Foundation 1954-1959, 25.

Chapter 3: From Wosuna to WOTRO

Dutch tropical research

What exactly are the tropics?

Before continuing to discuss the history of Wosuna and Suriname, it is worth elaborating on an essential concept not discussed in the previous chapters. One vital topic throughout the history of Wosuna that becomes even more relevant in the current chapter is the notion of conducting tropical research.

In the year reports of Wosuna, conducting research in the tropics is mentioned as the main reason for the foundation of Wosuna¹⁹⁹. The desire to conduct research in the tropics is not strange. As Wim van der Schoor showed, tropical research in Indonesia was a respected part of some scholarly disciplines. In biology and chemistry, gaining tropical experience in Indonesia was an accepted part of the training²⁰⁰. In Suriname, despite the lack of research stations and laboratories, many geographical explorations were conducted in the nineteenth and twentieth centuries²⁰¹. In the nineteenth and twentieth centuries, tropical research was vital to Dutch scientific research in Suriname and the other former colonies. As we saw in the speech of Lanjouw and throughout the history of Wosuna, the notion of tropical research was of great importance to Dutch scientists²⁰². Based on the amount of scientific research in the former colonies, especially Indonesia, the Dutch desire to continue tropical research during and after the decolonisation of the Dutch Empire is not as strange.

Yet, one can wonder about the definition of the term tropics, and what exactly is meant by tropical research. From a geographical perspective, the tropics refer to a distinct geographical area. The tropics are the area surrounding the equator. The tropics traditionally include large areas of Central America, from the south of Mexico to the north of Argentina, most of sub-Saharan Africa except for South Africa, and substantive parts of India and Indonesia in Asia²⁰³. Geographically speaking, the term tropics is straightforward.

Despite the geographic definition, the notion of the tropics remains under debate by historians and philosophers. The historian David Arnold reflects upon the presentation of the tropics in the European imagination. According to Arnold, there is a strong duality in the way the tropics are portrayed by Europeans. The tropics simultaneously were a paradise of green in which flora and fauna

¹⁹⁹ Stichting Wetenschappelijk Onderzoek 1954, 9-11.

²⁰⁰ Van der Schoor, "Zuivere en Toegepaste Wetenschap", 185.

²⁰¹ Gordijn, Bruijning, and Voorhoeve, *Encyclopedie Van Suriname*, 195.

²⁰² Stichting Wetenschappelijk Onderzoek 1954, 9-11.

²⁰³ Megan Raby, *American Tropics: The Caribbean Roots of Biodiversity Science*. Flows, Migrations, and Exchanges, (Chapel Hill: University of North Carolina Press, 2017), 4.

grew in abundance and an area of pests, natural disasters, and diseases²⁰⁴. The tropics became an 'Other' that Europeans felt superior to. Arnold shows that, in scientific research, the romanticisation of the tropics is present in the works of Charles Darwin and Alexander von Humboldt. Both men wrote about the beauty and fertility of the tropics in detail. Despite the clear geographical definition of the tropics, the European scientific perspective on the tropics was both romanticised and demonised.

Arnold is not the only one to claim that the term tropics has many connotations. In her book *American Tropics*, Megan Raby confirms the romantic yet demonic notions of the tropics. She stresses that the cultural meaning of the tropics goes far beyond the geographical definition²⁰⁵. Her *American Tropics* discusses the rise of US-run research institutes in the tropics, specifically in the Caribbean and the north of Latin America. She concludes that the imposing manner in which the US ran these research institutes was imperial. In the early twentieth century, US scientists founded and ran research institutes in the tropics. These – mainly biological – research stations were built in the tropics in an era of US expansionist discourse. US scientists saw it as their duty to develop research stations in the Caribbean, which would also be an opportunity to put US biology in a higher regard globally. As such, the development of these research institutes is thus strongly connected to nationalist and expansionist goals²⁰⁶. The tropical research stations allowed the US to gain and exert power in the surrounding regions. *American Tropics* thus shows that science and scientific research conducted by researchers from the Global North gave them significant influence concerning the nature of the areas.

Despite the ideas of Raby and Arnold not being specifically aimed at the Dutch Empire, the notions of tropical research and the connotations connected to the tropics become relevant when looking at the stress Wosuna placed on tropical research. Furthermore, as Raby states, the tropical research stations constructed by the US were inspired by the laboratories and plant gardens of Buitenzorg (now Bogor) in the Netherlands East Indies²⁰⁷. Some connections with the Dutch empire thus are undeniable. This chapter will dive further into the history of the organisation that came to replace Wosuna in the 1960s. To study the organisation that replaced Wosuna, a notion of the connotations and the history of research in the tropics becomes even more relevant.

²⁰⁴ David Arnold, "Illusory Riches': Representations of the Tropical World, 1840-1950." *Singapore Journal of Tropical Geography* 21, no. 1 (2000): 6–18. <https://doi.org/10.1111/1467-9493.00060>, p. 8.

²⁰⁵ Raby, *American Tropics*, 5.

²⁰⁶ *Ibidem*, 31-32, 58.

²⁰⁷ *Ibidem*, 33. The history of Bogor has received a significant amount of attention from historians of science. See, for example, Robert-Jan Wille's *Mannen van de Microscoop*.

The coming into existence of WOTRO

The end of Wosuna

Leaving the discussion concerning tropical research aside, let us return to Wosuna for now. In 1962, while several studies using Wosuna membership were in full swing, some prominent Dutch researchers commenced conversations about a general Dutch foundation for tropical research. The team of researchers, which included prominent members of Wosuna, such as Joseph Lanjouw and R. A. J. van Lier, explored the possibility of expanding Wosuna's activities over the wider area of the tropics²⁰⁸. Whereas Wosuna focused on conducting studies in specific areas, the potential foundation for research in the tropics would focus on Dutch research conducted in any country with a tropical climate. Despite the proposed foundation having a broader research scope than Wosuna, the overall goals of the foundation would remain similar. Studies conducted by the foundation for tropical research would allow Dutch scientists to gain experience with tropical research. The foundation would also support the development of these countries by assisting and promoting scientific research²⁰⁹. The suggested design and goals for the foundation of tropical research thus resemble Wosuna's scientific and humanitarian aims.

Wosuna was not the sole institution conducting research in the former Dutch tropics around the 1950s. Another Dutch institute for tropical research was active in the Netherlands New Guinea. After the Indonesian independence, Netherlands New Guinea was the only territory in Asia remaining under Dutch rule²¹⁰. Netherlands New Guinea continued to exist as a Dutch overseas territory, as did Suriname and the Antilles. Under the influence of several Dutch scientists who aimed to conduct and stimulate research in New Guinea, the Netherlands Foundation for the Advancement of Research in New Guinea (Wong) flourished²¹¹. Wong came into existence in 1957 and was structurally similar to Wosuna²¹². The Netherlands New Guinean organisation aimed to coordinate research in New Guinea and allow Dutch researchers to gain practical experience with tropical research. Like Wosuna, Wong also had a humanitarian side and focused on allowing the inhabitants of New Guinea to profit from the Dutch scientific practices. Wong functioned similarly to Wosuna, as Wong's goals consisted of coordinating research that hopefully benefitted the population of Netherlands New Guinea²¹³.

²⁰⁸ Netherlands Foundation for the Advancement of Tropical Research (WOTRO): Report for the year 1964-1965, (The Hague: Netherlands Foundation for the Advancement of Tropical Research (WOTRO), 1966), 16.

²⁰⁹ *Netherlands Foundation 1963*, 12.

²¹⁰ Oostindie and Klinkers, *Decolonizing the Caribbean*, 72.

²¹¹ In Dutch: *Stichting Wetenschappelijk Onderzoek Nieuw Guinea*

²¹² Stichting Wetenschappelijk Onderzoek Nieuw-Guinea, Stichting Papua Cultureel Erfgoed (PACE), and Wong, *Netherlands Foundation for the Advancement of Research in New Guinea (Wong): Stichting Wetenschappelijk Onderzoek Nieuw-Guinea (Wong): Report for the Period 1961 - April 1964*, (Den Haag: Z.W.O, 1964), 8.

²¹³ Stichting Wetenschappelijk Onderzoek Nieuw Guinea 1961-1964, 8.

Unlike Wosuna, Wong did not manage to celebrate their tenth anniversary. Tensions between Indonesia and the Netherlands remained present throughout the 1950s, making Wong's position precarious. Under pressure from the United Nations, the Netherlands handed jurisdiction over Netherlands New Guinea to Indonesia in 1963. The independence of Netherlands New Guinea meant that Wong lost their field of research. However, the scientists who lost their research ground in New Guinea were not without work for a long time. A general institution for Dutch tropical research was well underway²¹⁴. Despite the short-lived existence of Wong, Dutch scientific activities could continue in a new, extensive research foundation comprising all of the tropics.

The coming into existence of the Netherlands Foundation for the Advancement of Tropical Research (WOTRO)²¹⁵ meant that Wong and Wosuna would now join the same general institution for tropical research. Wosuna officially stopped existing in 1964, shortly after their ten-year jubilee²¹⁶. After the discontinuation of Wosuna, several members of the Executive Board continued their work in the new foundation for tropical research. Lanjouw and several other members of Wosuna were already involved with the foundation of WOTRO and became executive members of WOTRO as well²¹⁷. As the former chairperson of Wosuna, Joseph Lanjouw became the first chairperson of WOTRO. The position of vice-chair was filled by H. T. Fisher, the former chair of Wong²¹⁸. As such, much of the general structure of Wosuna and Wong was used to form WOTRO. Members of both organisations became the new board members of WOTRO. In both members, overall structure, and goals, WOTRO was the undoubted successor of both institutions.

The beginning of WOTRO

After two years of discussions between members of Wosuna and Wong, under the watchful eye of the Royal Netherlands Academic of Sciences (KNAW), the Netherlands Foundation for the Advancement of Tropical Research was founded in 1964. As the name suggests, the foundation would no longer focus on former Dutch territories. As mentioned in the publications of WOTRO, as long as the country in which the research would take place was a tropical country, the research could qualify for WOTRO sponsorship. No longer solely connected to Suriname or the Netherlands Antilles, scientists were free to decide where to conduct research as long as it took place in a tropical climate, or the country could be classified as a 'developing country'²¹⁹. The connection between the former Dutch colonies and

²¹⁴ Stichting Wetenschappelijk Onderzoek Nieuw Guinea 1961-1964, 5.

²¹⁵ In Dutch: Stichting Wetenschappelijk Onderzoek van de Tropen.

²¹⁶ Netherlands Foundation 1963, 5.

²¹⁷ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4-5.

²¹⁸ Stichting Wetenschappelijk Onderzoek Nieuw Guinea 1961-1964, 8.

²¹⁹ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4-5.

WOTRO was thus much slimmer than had been the case with Wong and Wosuna, as there was no direct connection to the former Dutch colonies.

Within the Dutch scientific community, WOTRO's structure was different from Wosuna and Wong's. The former organisations had a separate position in the Dutch scientific community. Wosuna and Wong could make their own decisions with limited interference from the Dutch government or other scientific institutions. They were independent bodies in the Dutch academic environment²²⁰. WOTRO, on the other hand, became closely related to the Netherlands Organisation for the Advancement of Pure Research (ZWO)²²¹. ZWO was the general Dutch organisation for pure scientific research. Founded in 1950, the ZWO coordinated and stimulated pure scientific research in the Netherlands. After some initial discussion on how the ZWO and WOTRO would cooperate, WOTRO eventually remained an autonomous organ in the Dutch scientific environment²²². WOTRO's secretariat was part of ZWO, strengthening the connection between WOTRO and the ZWO²²³. Relatively to Wong and Wosuna, WOTRO is more connected to other Dutch scientific organisations and does not fully have an independent board.

Despite WOTRO's focus on tropical research, the connection between the colonial period and WOTRO remained. In the report WOTRO published to mark their 25th anniversary in 1989, they reflect upon the connection to the former colonies.

The major impetus for this [the foundation of an organisation that would coordinate tropical research] initiative was that, during its time as a colonial power the Netherlands had accumulated considerable knowledge and expertise on tropical countries. This needed to be retained and passed on to the next generation of scholars and scientists, and also to be applied to countries other than the (former) Dutch colonies²²⁴.

According to the report, the foundation of WOTRO was considered in a framework of the former Dutch Empire. WOTRO's goal was to collect and preserve the knowledge gained by the Netherlands in the colonial era and to spread this knowledge to other countries. WOTRO aimed to preserve the knowledge

²²⁰ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4.

²²¹ In Dutch: *Nederlandse Organsatie voor Zuiver Wetenschappelijk Onderzoek*.

²²² Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4.

²²³ The ZWO no longer exists. In 1988, the ZWO became the Dutch Research Council (NWO), which focuses on general Dutch scientific research. Because of the change from ZWO to NWO, WOTRO became a part of NWO. WOTRO no longer has a separate board, yet is under direct jurisdiction of the NWO. See also Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989 and <https://www.nwo.nl/wotro-science-for-global-development> (consulted on 31-7-2023).

²²⁴ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4.

gained during the times of the Dutch Empire and stimulate future research²²⁵. As such, the intentions of the members of WOTRO, though the organisation was based on Dutch knowledge gained in the colonies, were honourable and would aid others.

Taking Raby's framework into account, the rhetoric present in WOTRO's analysis appears to justify Dutch research in the colonies by stressing that the knowledge gained in the colonial period could help various countries. The knowledge gained, according to WOTRO, should be passed on and applied to other areas. Likewise, the US scientists Raby studied claimed their tropical research would help both the US and others – especially Europeans – gain a more complete picture of the tropics and help 'civilising' the tropics²²⁶. The US scientists and the members of WOTRO relied on the notion that their tropical knowledge would assist others, using the scientific knowledge and the applicability as a justification for their presence in tropical countries. The sentiment expressed by WOTRO and the sentiments of the US scientists is used to justify their presence in tropical countries, as they possess the scientific knowledge to aid tropical countries.

New Guinea's influence on WOTRO

Except for WOTRO's admittance that they hold connections to the colonial past of the Netherlands, another element that strengthens WOTRO's connection to the former colonies concerns recent events in Netherlands New Guinea. Except for WOTRO's role in preserving Dutch knowledge gained in the former colonies, the independence of New Guinea played a role in the foundation of WOTRO. As mentioned before, New Guinea became a part of Indonesia in 1963²²⁷. The loss of New Guinea meant that the Netherlands lost all their former colonies in Asia. Suriname and the Netherlands Antilles remained the sole Dutch territories abroad. Scientists connected to Wong thus lost their research terrain until the official foundation of WOTRO allowed them to conduct tropical research in New Guinea or elsewhere. Fascinatingly, a report published by WOTRO named the independence of New Guinea one of the factors that accelerated the foundation of WOTRO. According to the report, the loss of Wong's sphere of research "speeded up the creation of an institute for tropical research in general"²²⁸. The report thus lists independence as one of the reasons for the need for an organisation for tropical research.

The perspective of WOTRO's report, naming New Guinean independence as a reason for the acceleration of WOTRO's foundation, can be found in multiple sources. A newspaper article published in 1964 refers to the independence of New Guinea as one of the direct causes of the foundation of

²²⁵ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4-5.

²²⁶ Raby, *American Tropics*, 31-32.

²²⁷ Oostindie and Klinkers, *Decolonizing the Caribbean*, 72.

²²⁸ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4.

WOTRO²²⁹. The article describes the independence of New Guinea as vital for the foundation of WOTRO. The newspaper article names New Guinean independence as the most significant reason for WOTRO's foundation. Based on the two accounts, the importance of the independence of New Guinea cannot be understated. The loss of Netherlands New Guinea as research territory to Indonesia stimulated the KNAW to commence discussions concerning the possibility of a general organisation for tropical research²³⁰. The independence of the Netherlands New Guinea thus directly influenced the foundation of WOTRO in 1964.

The importance of New Guinea's independence for WOTRO shows that the possibility of conducting tropical research was vital for Dutch scientists. The loss of New Guinea as a place for Dutch science stimulated the foundation of a general institution for science in the tropics. Losing the last Dutch territory in Asia played a vital role in the foundation of a scientific organisation without direct connections to the Dutch colonies. The response of the Dutch scientific community appears to indicate a strong desire for tropical research. Whereas Wong and Wosuna centred on studying the Dutch overseas territories, WOTRO aimed to sponsor and stimulate Dutch research in the tropics. Dutch research could continue in the form of WOTRO, as WOTRO lacked a direct geographical connection to the Dutch Empire. Dutch tropical research, already a vital topic for Wong and Wosuna, could continue safely in WOTRO.

The foundation of WOTRO meant that tropical research became disconnected from a specific location within the former Dutch empire. Because of the existence of WOTRO, Dutch science in the tropics could continue without a direct connection to the former Dutch colonies. At first glance, the foundation of WOTRO appears to be a move away from the former Dutch empire. However, upon closer inspection, WOTRO's rapid foundation after the New Guinean independence shows that the Dutch scientific community needed the former colonies as a place to conduct research. As van der Schoor shows, Indonesia was a popular place to conduct research until Indonesian independence²³¹. Research in Suriname and the Antilles, as can be seen in the year reports of Wosuna, was also gaining attention from the Dutch scientific community. The foundation of WOTRO allowed research in Indonesia, New Guinea and all other former colonies to continue. Focusing on organising an organisation for tropical research thus displays a need to hold onto the overseas territories for scientific research²³².

The notion that WOTRO could be seen as a way for Dutch researchers to continue their research in the former colonies is, in my opinion, further strengthened by WOTRO's connections to Wong and

²²⁹ "Onderzoek van Tropen Belangrijk," 12.

²³⁰ Netherlands Foundation for the Advancement 1964-1965, 16.

²³¹ Van der Schoor, "Zuivere en Toegepaste Wetenschap", 185.

²³² Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4.

Wosuna. WOTRO's general structure and members directly came from Wosuna and Wong. As WOTRO's structure and members are so similar to Wong and Wosuna, there is no direct disconnect from the organisations active in the former colonies. Though WOTRO is an organisation that centres around tropical research, the members and the structure were taken from organisations founded to study and support the Dutch overseas territories. WOTRO does reflect on their position as an institute that largely centres around knowledge gathered in the colonies. These reflections are visible in the earlier citation from WOTRO's 25th-anniversary report²³³. As can be seen in the quote, the most important motivation for the foundation of WOTRO was the retaining and spreading of knowledge gathered in the Dutch colonial era. WOTRO did consider itself as having a role in the spread and collection of knowledge in the colonies and applying this knowledge over the tropics in general.

WOTRO's connections to the former Dutch colonies thus cannot be denied, yet the structure and goals of WOTRO did shift considerably from Wong and Wosuna. Despite WOTRO's clear colonial connections, it seems that WOTRO has a more significant role in developmental aid than Wong and Wosuna had. As such, WOTRO's role in the Dutch research landscape shifted significantly. WOTRO profiled itself as an organisation that went beyond Dutch tropical research²³⁴. The active focus on developmental aid and supporting countries they classified as developing gives WOTRO a different approach to science in the tropics. How WOTRO presents itself makes it clear that WOTRO took a different approach to organising research than its predecessors did.

Research sponsored by WOTRO

Wotro's funds and general aims

Supporting and stimulating tropical research was the most significant goal of the foundation. To attain these aims, WOTRO operated in a similar way as Wosuna did. WOTRO administers governmental funds for research in tropical areas. While conducting the research, the needs of the local population were kept in mind. Studies that received WOTRO-administered funds were to stimulate cooperation between the Netherlands and tropical countries. Despite WOTRO's foundation as an organisation for research in the tropics, the research funded by WOTRO did not have to be in the tropics. Throughout its existence, WOTRO broadened their research scope to "stimulating scientific research in the tropics and /or developing countries"²³⁵. WOTRO also aimed to encourage multidisciplinary research. Several studies conducted with WOTRO scholarship focused on combining different academic fields, such as

²³³ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4.

²³⁴ *Ibidem*, 4-5.

²³⁵ *Ibidem*, 4.

history and anthropology. General themes in WOTRO's aims were cooperation, multidisciplinary, and supporting developing countries.

To receive funds from WOTRO, an individual had to go through a similar process as Wosuna. A scholar with Dutch nationality would come up with an idea to conduct a study in a tropical country, and a member of WORO would either approve or disapprove the request. The most common type of WOTRO sponsorship, as mentioned in one of WOTRO's reports, was to conduct PhD research²³⁶. If approved, the scholar would receive their funds and could travel to their tropical/developing country of choice to start their research.

Interestingly, the picture painted by the press surrounding WOTRO claims something slightly different. A newspaper article in the Curacao newspaper *Amigoe di Curacao* only mentions the possibility of obtaining WOTRO funding for a research internship²³⁷. The article mentions that it is possible to obtain WOTRO sponsorship for a period of either four or six months. The possibility of conducting PhD research with WOTRO sponsorship remains unmentioned. This lack of information considering sponsorship for a PhD is interesting. According to the reports published by WOTRO, PhD sponsorship was the most common sponsoring for researchers²³⁸. The WOTRO report does mention the possibility of short-term travel grants, yet the most common type of sponsoring concerns PhDs. The difference between the newspaper article and the WOTRO report is noteworthy.

The research funded by WOTRO was similar to some of the studies funded by Wosuna. The division between the different scholarly fields also remained similar. Research sponsored by WOTRO was divided into Humanities and Social Sciences, Physical-anthropological and Medical Sciences, Physical Sciences, and Biological Sciences. The individuals working for WOTRO were largely the same individuals who ran Wosuna. As a consequence of the scholars that were both on the board of Wosuna and WOTRO, the research projects that received funding remained similar. Especially during the first years of WOTRO's existence, funding was given to several projects started under Wosuna. As such, Leiden-based professor R. A. J. van Lier became a member of the board of WOTRO and started new projects studying the working-class Creole family structures in Suriname²³⁹. Lanjouw also continued research in the Bakuys mountains in Western Suriname, as he had done before Wosuna discontinued. The Brokopondo Research Project is mentioned in the first-year report of WOTRO as well. The research project remained ongoing, as new scientists received funding to go to Brokopondo to study the

²³⁶ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 5.

²³⁷ "Stagebeurzen 1966," *Amigoe di Curacao: Dagblad voor de Nederlandse Antillen*, September 29, 1965, Delpher, 8.

²³⁸ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 5.

²³⁹ Netherlands Foundation for the Advancement 1964-1965, 22-25.

biological changes to the lake. Based on the continuation studies sponsored in Suriname, the first couple of years of WOTRO's existence seem to be a continuation of research funded by Wosuna.

Except for research in Suriname, studies sponsored outside of Suriname received sponsorship as well. As such, WOTRO funded preliminary research concerning the development of agriculture in Tanzania and cultural-anthropological research into an indigenous tribe in Peru²⁴⁰. Despite the focus on Suriname and the Antilles in the first couple of years, other areas started receiving more attention from WOTRO. The transition from Wosuna to WOTRO thus resulted in a relatively large amount of WOTRO research being conducted in Suriname and the Antilles.

A significant difference in research focus between Wosuna and WOTRO is displayed in the origin of the funding WOTRO received. WOTRO's focus on developing countries²⁴¹ shows in the funds from the Dutch government. Most of WOTRO's funds between 1964 and 1989 came from the Ministry of Education and Sciences. A smaller, yet not inconsiderable sum came from the Minister of Development. In the funding of WOTRO, the importance of contributing to developing countries was already visible. Funds from the Minister of Development imply that the assistance and aid for developing countries were vital for WOTRO. WOTRO started in 1964 with a budget of 400,000 Dutch guilders, which would approximately be 1,634,930 euros nowadays²⁴². WOTRO's funding steadily rose to about 1979, when they received around 4,000,000 guilders. In the 1980s, funding remained stable at 4,000,000 guilders²⁴³. The number of studies sponsored by WOTRO rose significantly from around 20 in 1964 to 80 in 1989²⁴⁴. Judging by WOTRO's funds and the number of studies sponsored, WOTRO became a vital organisation for tropical research.

WOTRO in comparison to Wosuna

Much of the structure of WOTRO shows similarities to Wosuna. Like Wosuna, some of the main fields sponsored by WOTRO were the biological sciences, social sciences and anthropology. As was the case with Wosuna, the topics were diverse and ranged from tropical plants in Suriname, to ethnographies concerning Indonesian languages, to sexual dimorphism of marine fish in Puerto Rico. As can be seen from these examples of studies, the research conducted by WOTRO was similar to Wosuna research, be it that WOTRO has a broader geographical range. The active focus on multidisciplinary research and

²⁴⁰ Netherlands Foundation for the Advancement 1964-1965, 26.

²⁴¹ 'Developing countries' is a problematic term. I chose to use the term here as this is the term used in the literature published by WOTRO in the year reports.

²⁴² Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4. I calculated the value of guilders in 1964 to euros in 2022.

²⁴³ Accounting for inflation, 4,000,000 guilders in 1980 would be almost 5,000,000 euros in 2022. In 1989, the value of 4,000,000 guilders sunk significantly to less than 4,000,000 euros in 2022. Despite the funding appearing similar, the value in 1989 was about 20% less than in 1980.

²⁴⁴ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 6-7.

developmental aid also is a vital difference between the two organisations. Despite Wosuna's aim to take the wishes of the local government in mind, Wosuna did not portray itself as an organisation that stimulated developmental aid. The goals of WOTRO centre around aiding developing countries more than Wosuna did.

Comparatively, WOTRO's strong focus on developmental aid was not as present in Wosuna. However, Wosuna did aim to contribute to the welfare of Suriname and the Netherlands Antilles. WOTRO's focus on tropical research to support the prosperity of developing countries is represented in WOTRO's funding, which came partly from the Dutch Minister of Development. In the first 25 years of WOTRO's existence, it became a vital and growing organisation for tropical research with a strong focus on science to assist developing countries²⁴⁵.

As WOTRO was meant to encompass a much wider research terrain, WOTRO's boards were significantly larger than Wosuna's. The number of members on all of WOTRO's committees, such as the advisory committee and the executive committee was higher than those of Wosuna²⁴⁶. As such, it was clear from the beginning of WOTRO that this organisation would be more substantial than Wosuna. Whereas Wosuna was an organisation that was only active in two countries, WOTRO's structure shows that the organisation was meant to conduct research in a much larger area.

WOTRO continues to exist to this day, albeit with some changes in organisational structure throughout the years²⁴⁷. As can be read on their site, WOTRO remains active in the sponsoring of research that contributes to the development of lower- and middle-income countries²⁴⁸. WOTRO started focusing even more on aiding countries in the Global South. The focus of WOTRO shifted from an organisation for tropical research to an organisation that funds research supporting global development and inclusivity. Whereas Wosuna remained firstly and foremost an organisation of research, the character of WOTRO changed throughout the years from an organisation for research in the tropics to an organisation that focuses on funding research for global development²⁴⁹.

The Brokopondo research under WOTRO

As briefly mentioned before, the Brokopondo Research Project in Suriname continued under WOTRO. After the initial four biologists had concluded their research, WOTRO hired several others to continue working on studying the lake and the ecosystem surrounding the lake.

²⁴⁵ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4-5.

²⁴⁶ Netherlands Foundation for the Advancement 1964-1965, 9-10.

²⁴⁷ Nowadays, WOTRO falls completely under the responsibility of the NWO. See, for example, <https://www.nwo.nl/wotro-science-for-global-development>.

²⁴⁸ <https://www.nwo.nl/wotro-science-for-global-development>, accessed on August 2nd, 2023.

²⁴⁹ <https://www.nwo.nl/wotro-science-for-global-development>, accessed on August 2nd, 2023.

J. van Donselaar, who had already worked on studying the floristic consequences of the artificial lake, returned to Suriname in 1969 to continue his research. Likewise, the hydrobiologist P. Leentvaar also returned to conduct more research into the plant flora of the area. Two new biologists were hired as well²⁵⁰. To continue Leentvaar's research, J. Nijssen-Meyer studied the hydrobiological aspects of the lake. Nijssen-Meyer took water samples, studied the height of the lake, and studied the algae present in the lake. The work studying the fish populations of the lake was taken over by the ichthyologist H. Nijssen, who compiled a list of the various fish species present in the lake²⁵¹. The research in the Brokopondo area thus seamlessly continued under WOTRO.

The new research outcomes are similar to those of the earlier research conducted under Wosuna. Nijssen confirmed the work of the ichthyologist Broeseman, who partook in the research under Wosuna and concluded that the barrage had severely impacted the fish population²⁵². Nijssen concluded that a relatively low number of fish species were present in the lake when compared to other places in the Suriname River. Nijssen-Meyer concluded that the levels of oxygen in the water of the lake were relatively low when compared to the Suriname River in other areas²⁵³. The biological research started by Wosuna similarly continued under WOTRO, with comparable outcomes.

The continuation of the research is mentioned in the year reports of WOTRO, though less elaborately than in the case of Wosuna²⁵⁴. The WOTRO annual report of 1964-1965 mentions that the current organisers of the Biological Brokopondo Research Project are the Foundation for Scientific Research in Surinam and the Netherlands Antilles. As such, it does appear that another organisation specifically aimed at Suriname and the Netherlands Antilles has taken over the main role in organising the research while WOTRO continued to be active as a sponsor. The expertise concerning the Biological Brokopondo Research Project thus remained in the hands of organisations that focused on Suriname.

What is noteworthy in the reports concerning the Biological Brokopondo Research Project is that I have found several mentions of assistance in the research reports. The ichthyologist Nijssen specifically mentions that he received help from motorists during his studies. He names the two motorists who helped him during his trip and mentions that one of them had to undergo medical treatment during the research. Nijssen even managed to arrange jobs for both of them at the Hydrological Service of the government of Suriname²⁵⁵. Nijssen's descriptions of his interactions with

²⁵⁰ Foundation for Scientific Research in Surinam and the Netherlands Antilles (Utrecht), *Biological Brokopondo Research Project, Surinam: Progress Reports*. (Utrecht: Foundation for Scientific Research in Surinam and the Netherlands Antilles, 1970), 247-256.

²⁵¹ Foundation Scientific Research, *Brokopondo Progress Report*, 209-246.

²⁵² Broeseman, "The Genus *Hypostomus* Lacépède", 23.

²⁵³ Foundation Scientific Research, *Brokopondo Progress Report*, 213,240.

²⁵⁴ Netherlands Foundation for the Advancement 1964-1965, 24.

²⁵⁵ Foundation Scientific Research, *Brokopondo Progress Report*, 234-238.

the motorists are fascinating, as it is the first time that I have come across such an elaborate mention of the help received by locals in a publication of Wosuna or WOTRO.

The Brokopondo Research Project continues rather seamlessly under WOTRO sponsorship, though the Foundation for Scientific Research in Surinam and the Netherlands Antilles did get more involved in the project. The research continued in a similar direction as it had under Wosuna. Under WOTRO, the studies of the fish fauna and the conditions of the lake remained ongoing.

Dutch science in Suriname

Suriname in the 1960s and 1970s.

As can be seen in the continuation of the Brokopondo Research Project, WOTRO originally continued to sponsor a significant amount of research in Suriname. After a couple of years, the attention from WOTRO to Suriname started going down. Suriname also continued to struggle with economic and social turmoil. For Suriname, the 1960s and 1970s saw economic growth due to bauxite exportation and aluminium production. The Brokopondo Project discussed elaborately in Chapter 2, caused significant economic growth and resulted in some of the highest national income in Surinamese history between 1964 and 1967²⁵⁶.

Economic growth, however, did not necessarily stimulate further development in Suriname. Instead, as Rosemarijn Hoefte notes, the temporal rise in wages caused by the hydroelectric dam in the Brokopondo area and other similar projects often resulted in a rise in individuals migrating to the Netherlands. The temporary benefits of higher wages were used for migration. One further consequence of the temporal economic prosperity caused by the successes of the bauxite industry was the lack of development in other areas. Bauxite became the most significant part of the economy, which significantly halted the diversification of the economy²⁵⁷. Economically speaking, Suriname remained strongly dependent on bauxite and developed few other means of gaining economic profit.

Exporting bauxite resulted in a strong dependence on the global market and did not cause a stable long-term economic environment for Suriname. Though the Brokopondo push resulted in a temporal economic boom, the Surinamese economy remained dependent on bauxite and did not diversify. Because of the relative instability, many Surinamese people moved to the Netherlands. The mass migration to the Netherlands resulted in a significant brain drain in the 1970s²⁵⁸. Educated Surinamese people moved to the Netherlands for more job opportunities and a more stable economic

²⁵⁶ Hoefte, *Suriname in the Long Twentieth Century*, 110.

²⁵⁷ *Ibidem*, 110-111.

²⁵⁸ *Ibidem*, 112.

climate. Individuals who could afford to move to the Netherlands were more inclined to migrate than stay in Suriname.

Except for the economic instability, the status of Suriname in the Kingdom of the Netherlands was also shifting. After the declared autonomy in 1954, the Dutch government appeared unwilling to increase the autonomy of Suriname and the Netherlands Antilles within the Dutch kingdom. Oostindie and Klinkers show that there was little political and public interest in the Netherlands towards the former West Indies. The old colonial Dutch disinterest in Suriname and the Netherlands Antilles remained ongoing²⁵⁹. Because of the general indifference, Dutch politicians received a shocking wake-up call at the end of the sixties. Rising Surinamese nationalism and protests resulted in political unrest in the Netherlands and Suriname. Despite the turmoil in Suriname, it was the violent protest in Curacao in 1969 that forced the Dutch government to direct action. The *Trinta di mei*²⁶⁰ riots in Curacao originated as a labour conflict. Eventually, this conflict fired up the existing frustrations about inequality and racism which led to a huge crowd marching the streets of Willemstad, the capital of Curacao. The uncontrollable situation in Willemstad caused the Dutch government to reconsider their policies concerning Suriname and the Netherlands Antilles. The protests in both Suriname and the Antilles made the Dutch government face that complete independence from the Netherlands might be the only feasible conclusion²⁶¹.

Preparations for the inevitable independence of Suriname and the Netherlands Antilles had to become more serious. After the riots and the rise of Surinamese nationalism, it became increasingly clear that Suriname and the Netherlands would go their separate ways once an agreement had been reached. Throughout the 70s, preparative talks with the Netherlands took place. However, economic instability continuously plagued Suriname. As Roger Janssen shows, mass migration to the Netherlands remained ongoing. Uncertainty of what independence would look like drove more Surinamese people abroad to the relative stability of the Netherlands. These potential insecurities about the future of Suriname and a drop in inhabitants did not stop the move towards an independent Suriname²⁶².

The early seventies saw some economic successes for Suriname, such as the foundation of the International Bauxite Association (IBA) and contracts with significant international mining companies. These economic victories gave the Surinamese government a somewhat more comfortable position in the negotiations with the Dutch government concerning independence²⁶³. From the Dutch side, though

²⁵⁹ Oostindie and Klinkers, *Decolonizing the Caribbean*, 96.

²⁶⁰ *Trinta di mei* is Papiamentu, the main language of Curacao. In English, this would translate to the 30th of May, named after the date of the protests.

²⁶¹ Oostindie and Klinkers, *Decolonizing the Caribbean*, 96-97.

²⁶² Janssen, *In Search of a Path*, 18-20.

²⁶³ *Ibidem*, 20.

there was a clear majority of the Dutch government in favour of independence, the Dutch government favoured their interest above the wishes of the Surinamese and Antillean governments. Consequently, the first Dutch suggestion for the creation of a somewhat greater amount of independence for Suriname and the Antilles was refused by the Antillean and Surinamese representatives.

Despite the refusal of the first presentation of conditions for Surinamese and Antillean independence, the Dutch government remained strongly motivated to arrange complete independence as soon as possible. In the early seventies, the Dutch government was led by the Labour Party for the first time in decades. Oostindie and Klinkers argued that it was in the interest of the progressive labour government in power in the Netherlands to grant Surinamese independence. The Labour government under Prime Minister Joop den Uyl did not want to appear conservative by clinging to the colonies or the colonial past of the Netherlands. From the perspective of the Dutch Labour Party, the Surinamese independence had to take place before the end of the four-year governmental term of Den Uyl, who would lose power in 1976²⁶⁴.

The relative economic successes of Suriname and the perceived pressure on the first left-wing government in a considerable amount of time resulted in a viable climate for Surinamese independence. Despite this climate, the discussions concerning Surinamese autonomy were rough. The role of the Netherlands in Suriname, Dutch development aid, and migration between Suriname and the Netherlands were discussed in great detail. In 1975, after several years of negotiations and discussions, Suriname and the Netherlands declared the official independence of Suriname²⁶⁵.

Less research in Suriname

From a scientific perspective, the tumultuous period in the 1960s and 1970s saw few scientific developments. As the Surinamese economy centred around the production and export of bauxite, most scientific energies seemed to go towards infrastructure projects concerning bauxite and mining. Many of the larger infrastructural projects, such as the Brokopondo project, were organised and researched by international scientists²⁶⁶. These projects managed to cultivate a significant amount of attention for Suriname. However, it seems that international attention waned the moment the project finished. These large-scale projects also did not cause the local population to gain a significant amount of scientific experience. The local population of Suriname mostly took an assisting role in the effort and was seldom mentioned in the scientific literature published by Dutch sources²⁶⁷. Furthermore, the Surinamese brain drain in the 1970s resulted in limited attention for scientific projects in Suriname.

²⁶⁴ Oostindie and Klinkers, *Decolonizing the Caribbean*, 102.

²⁶⁵ *Ibidem*, 107.

²⁶⁶ *Netherlands Foundation 1963*, 21.

²⁶⁷ Assistance of the national population does not receive a mention in any of the Wosuna year reports nor the sources published by WOTRO that I have found.

The possibilities for academically educated people in Suriname remained limited, and many decided to leave the country²⁶⁸. Significant scientific projects usually centred around economic gain for foreign countries and continued to be the domain of international researchers.

Despite much of science in Suriname continuing to be conducted by international researchers, Dutch research in Suriname lessened under WOTRO. The end of Wosuna had significant consequences for the amount of research conducted in Suriname. Now that the geographical area of potential research projects broadened significantly, the attention to Suriname diminished. In the first couple of years of WOTRO's existence, Suriname remained the topic of most WOTRO-sponsored studies. The enthusiasm for Suriname lessened after just a couple of years and continued to fall throughout the 1970s and 1980s. In 1989 only a single research project in Suriname received WOTRO sponsorship²⁶⁹. Without Wosuna as a specific organisation for research in Suriname and the Netherlands Antilles, the interest in Suriname as an area of research declined. The possibility of conducting research in other countries appeared to have caused a reduction in scientific studies in Suriname. Though WOTRO coordinated more research projects than Wosuna did, the amount of research in Suriname dropped quickly.

The drop in WOTRO research in Suriname and the Netherlands Antilles did not remain unnoticed by the Antilleans. The Curacao newspaper *Amigoe di Curacao* published articles reflecting upon the number of studies funded by WOTRO in the Antilles and Suriname. One of the articles states that after WOTRO started sponsoring studies outside of Suriname and the Netherlands Antilles, the attention for these countries waned. "In its [WOTRO's] ten years of existence, the interest of the first period, [which was] mainly for Suriname and the Netherlands Antilles, has shifted more and more"²⁷⁰. The lower number of research projects in Suriname and the Netherlands Antilles thus was a point of discussion in an Antillean newspaper.

The 1960s and 1970s saw little development of significant scientific infrastructure in Suriname. The main scientific projects were large-scale engineering projects concerning mining or producing aluminium from bauxite. The construction of the hydroelectric dam in Brokopondo and Operation Grasshopper are examples of this. Both these projects generated a significant amount of scientific attention. In both projects, there were potential economic benefits to attain for the large-scale engineering projects. Both projects also saw an amount of Dutch influence in the general construction

²⁶⁸ Hoefte, *Suriname in the Long Twentieth Century*, 112.

²⁶⁹ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 5-8.

²⁷⁰ "Ant-projecten van WOTRO," *Amigoe di Curacao: Dagblad voor de Nederlandse Antillen*, August 24, 1974, Delpher, 8. In Dutch: "in zijn tienjarig bestaan is de belangstelling van de eerste periode voor voornamelijk Suriname en de Nederlandse Antillen meer en meer verschoven".

and the decisions involved in the project. The Dutch influence on scientific projects in Suriname stayed present beyond the Surinamese autonomy in 1954.

The circumstances for the development of science in Suriname during the sixties and seventies seem less than ideal. The country was struggling with mass migration to the Netherlands. The migration to the Netherlands resulted in a significant brain drain because of better job possibilities in the Netherlands. As Rosemarijn Hoefte mentions, the temporal economic benefits from large-scale projects such as the Brokonpondo push resulted in a rise in migration to the Netherlands²⁷¹. An individual who would desire a scientific education could be more inclined to move to the Netherlands to find a job than to stay in economic insecurity in Suriname. The development of independent science in Suriname was slow because of economic instability and a lack of infrastructure for higher education.

Higher education and science in Suriname

Despite the relative economic instability, the first university in Suriname opened its doors in 1968. The university started with a faculty of law. Over the next decade, a medical faculty, a socioeconomic faculty, and a faculty of natural science and technology were added to the university²⁷². The newly-founded university was the first official university of Suriname, yet some possibilities for higher education already existed in the country. Since the end of the nineteenth century, Suriname had a medical school for higher education. Despite the economic turmoil and the brain drain, the university with several faculties for different areas of scientific education meant that the population of Suriname would no longer have to travel abroad for university education.

The 1960s and 1970s saw a decline in WOTRO-sponsored science in Suriname, yet did see the foundation of the first university in Suriname. The Surinamese independence in 1975 caused a slow drop in Dutch influence in Suriname²⁷³. After years of science in Suriname based on European initiatives, science was now to be organised by the Surinamese themselves. Based on Hoefte's analysis that the economic benefits of large-scale infrastructural developments often resulted in mass migration to the Netherlands, the development of Surinamese science appears to have suffered from economic instability and migration to the Netherlands²⁷⁴. Yet the university allowed individuals to receive a scientific education in Suriname for the first time in Surinamese history. Except for the medical sciences, Surinamese people could not receive scientific training in Suriname before the coming of the university.

²⁷¹ Hoefte, *Suriname in the Long Twentieth Century*, 112.

²⁷² Gordijn, Bruijning, and Voorhoeve, *Encyclopedie Van Suriname*, 618.

²⁷³ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 7-8.

²⁷⁴ Hoefte, *Suriname in the Long Twentieth Century*, 112.

Suriname did not produce much scientific research in the sixties and seventies, yet the university allowed for more Surinamese scientific research.

Dutch science in the other former colonies

Scientific research in New Guinea

Throughout the 1960s and 1970s, the number of studies conducted with WOTRO sponsorship rose almost yearly. Yet, after Wosuna dissolved, the amount of research in Suriname and the Antilles became smaller in number. A similar development took place in the former Netherlands New Guinea, which used to be the area of research of Wong. The discontinuation of Wong resulted in a waning Dutch interest in New Guinea. Throughout the early years of WOTRO's existence, research projects in New Guinea became few. WOTRO-sponsored research in New Guinea remained sparse²⁷⁵. The lack of specific research organisations for Suriname, the Netherlands Antilles, and Netherlands New Guinea appeared to lessen the interest of the Dutch scientific community in conducting research in the former overseas territories.

Paradoxically, there is one former Dutch colony that gained WOTRO-sponsored research on an almost yearly basis. The number of sponsored studies in Indonesia rose significantly in the first decades of WOTRO's existence. WOTRO started in 1964 by funding one or two studies, yet the amount rose quickly to about seventeen studies in 1979²⁷⁶. The total number of studies sponsored that year added up to around 50, meaning that research in Indonesia accounted for a third of the total amount of studies sponsored. After WOTRO allowed for research in Indonesia, the country became a popular choice for Dutch scholars.

Scientific research in Indonesia

The rise of research in Indonesia is fascinating, as it seems to mimic the former colonial interest in Indonesia. Before Indonesian independence, many Dutch researchers worked in Indonesia. As mentioned in earlier chapters, Dutch scientists conducting research in Indonesia was a relatively common practice in the late nineteenth and first half of the twentieth century²⁷⁷. After the independence of Indonesia, the presence of Dutch researchers became more problematic. The coming of WOTRO might have made conducting research in Indonesia more accessible for Dutch researchers. As WOTRO is an organisation for tropical research, there seems to be less of a colonial connection between the Dutch researchers who would conduct tropical research in Indonesia. Rather than viewing

²⁷⁵ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4,8.

²⁷⁶ Ibidem, 8

²⁷⁷ Robert-Jan Wille, *Mannen van de Microscoop: de Laboratoriumbiologie op Veldtocht in Nederland en Indië, 1840-1910*, (Nijmegen: Vantilt, 2019), 268-270.

Indonesia as a former Dutch colony, Indonesia became a country with a tropical climate. WOTRO's presence as an organisation for research in the tropics could have legitimised Dutch scientific research in Indonesia.

The foundation of WOTRO as an organisation for tropical research allowed the Dutch to continue research in Indonesia. Yet, the notion that Dutch research in Indonesia could partake as WOTRO is an organisation for research in the tropics becomes challenging in the larger historical context. The rise in research in Indonesia almost twenty years after the independence shows a return to the country that Dutch scientists knew well. As such, the return of a considerable amount of Dutch research in Indonesia appears troubling. As the Dutch were no longer ruling the country, WOTRO provided a manner to study Indonesia without a clear connection to the former colonies. Dutch research in Indonesia could return and thrive under WOTRO, yet it does seem to reflect the former relationship between the Dutch and the Indonesians.

WOTRO does not deny its connections to the former colonies. The organisation names the independence of Netherlands New Guinea as one of the reasons to speed up the development of an organisation for general tropical research. The lack of New Guinea as a territory for Dutch tropical research stimulated the foundation of an organisation centred around research in the tropics. WOTRO admits that retaining and spreading the knowledge gained in the colonies was one of the main reasons for its existence²⁷⁸. Based on the role of the independence of Netherlands New Guinea, the rise of research in Indonesia, and the importance of retaining and spreading the knowledge gained in the colonies, WOTRO can be seen as an organisation with motivations inspired by the former colonial structures. WOTRO seems to be a way to hold onto the former colonies as research territory.

WOTRO sponsors a significant amount of research in various countries. Throughout the first couple of decades of WOTRO's existence, Indonesia was amongst the most popular countries to be studied using WOTRO sponsorship. Despite WOTRO originating from Wosuna and Wong, WOTRO did not sponsor much research in Suriname, the Netherlands Antilles and New Guinea²⁷⁹. The independence of New Guinea played a significant role in the development of WOTRO as the need for a general organisation for tropical research grew. The amount of studies sponsored in Indonesia and the stress on the New Guinean independence as a motivator for the existence of WOTRO leads me to argue that WOTRO ensured that Dutch scientists would continuously be able to conduct tropical research.

²⁷⁸ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4.

²⁷⁹ *Ibidem*, 8.

Surinamese and Antillean interest in WOTRO

Interest in the Netherlands Antilles

Despite Suriname and the Netherlands Antilles receiving less scientific attention after the discontinuation of Wosuna, the Antillean newspaper coverage of WOTRO's actions suggests a general interest in WOTRO. Especially in the Netherlands Antilles, the newspaper *Amigoe di Curacao* published several articles concerning WOTRO throughout the sixties and seventies. As we have already seen earlier in this chapter, some of these articles were yearly reminders that scholars could apply for a WOTRO internship grant²⁸⁰. The *Amigoe di Curacao* also updated their readers on research relevant to the Netherlands Antilles. The newspaper described several studies concerning the Netherlands Antilles during the 1960s and 1970s. Amongst others, the newspaper mentions elaborate research concerning working-class household structure and culture in Curacao and research into the ecology of Antillean coral reef fauna²⁸¹. Both announcements mention the names of the researchers and provide the reader with a summary of the actions planned to conduct the study. The readers of the *Amigoe* thus remained well-informed concerning WOTRO's actions in the Netherlands Antilles.

Interest in Suriname

For Suriname, there is less newspaper interest in the actions of WOTRO. There are some newspaper articles concerning WOTRO from the sixties and seventies. Yet, the amount of articles does not nearly match the number of articles published by the *Amigoe*²⁸². Despite the difference in amount, the newspaper articles published by Surinamese newspapers are similar in tone to the publications of the *Amigoe*. Published in the Surinamese newspaper *Vrije Stem*, some articles concern the several studies in Suriname that received WOTRO sponsorship. Other articles contain general updates concerning researchers related to WOTRO. There is also one article which invites the reader to attend a lecture about research conducted in Suriname with WOTRO sponsorship²⁸³. Except for one lecture invitation and a handful of updates about WOTRO, there are few articles in Surinamese newspapers. The actions of WOTRO do not seem to reach the Surinamese newspaper readers, as there was little published concerning WOTRO and research in Suriname.

²⁸⁰ "Stagebeurzen 1966." 8.

²⁸¹ "Subsidie voor beschrijving Antilliaanse koraal fauna," *Amigoe di Curacao: Dagblad voor de Nederlandse Antillen*, April 5, 1967, Delpher, 4, and "Sociologisch onderzoek samenleving op Curacao," *Amigoe di Curacao: Dagblad voor de Nederlandse Antillen*, August 7, 1965, Delpher, 2.

²⁸² My Delpher research left me with 10 hits for the term 'WOTRO' in Surinamese newspapers. For newspapers in the Netherlands Antilles, the number is noticeably higher. 'WOTRO' resulted in 48 hits in Antillean newspapers. These are all from the *Amigoe di Curacao*.

²⁸³ "Dr. Repp bestudeert Mijwormen in Suriname," *Vrije Stem*, July 12, 1974, Delpher, 1, and "Een lezing," *Vrije Stem*, January 30, 1975, Delpher, 4.

Based on the limited publications concerning WOTRO by Surinamese newspapers, WOTRO does not gain much attention in Suriname. The lack of consideration from Surinamese newspapers could be related to the general decline of WOTRO-sponsored research in Suriname²⁸⁴. Despite the drop in WOTRO-sponsored studies in Suriname, the organisation did sponsor quite some research in Suriname until the late seventies. The lack of newspaper articles thus cannot be explained in full by the drop in studies conducted in Suriname. The difference in newspaper coverage between WOTRO and Wosuna could relate to the fact that WOTRO has no direct connection to Suriname. A relative decline in interest from the Surinamese public seems understandable. Differences in the Antillean and Surinamese coverage of WOTRO are fascinating. The interest in WOTRO remained visible in the Antilles yet largely vanished in Suriname.

WOTRO from a global perspective

WOTRO in the context of the former Dutch Empire

WOTRO developed after the Dutch Kingdom lost most of their former colonies. The organisation is connected to the former colonies as WOTRO came out of Wosuna and Wong. The independence of New Guinea also stimulated the foundation of WOTRO²⁸⁵. WOTRO thus can be seen as an organisation connected to the Dutch former colonies that largely centred around collecting and spreading information concerning the former colonies.

Despite the seemingly negative connotations that WOTRO could have as an organisation connected to the colonies, it is important to keep in mind that WOTRO contributed significantly to tropical research. Throughout WOTRO's existence, the organisation started to centre more and more around global development and cooperation. As such, WOTRO is an organisation that values developmental aid and projects that allow collaboration between Dutch and countries from the Global South²⁸⁶. Especially in the context of the decolonisation of the Dutch empire, WOTRO could provide a path for cooperation between the Netherlands and tropical countries to stimulate scientific research. Judging by WOTRO's successful existence to this day, WOTRO contributes to the Dutch scientific research landscape and offers scientific assistance to other countries.

However, using the work of Arnold and Raby, the meaning of 'tropical research' could have been given more reflection in the reports presented by WOTRO. The reason for WOTRO's existence, as stated by WOTRO itself, is to spread the knowledge collection in the former Dutch colonies. Yet, the desire to spread and collect this knowledge by sponsoring research in the tropics and 'developing

²⁸⁴ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 8.

²⁸⁵ Netherlands Foundation for the Advancement 1964-1965, 15-16.

²⁸⁶ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4-5.

countries' seems to result in somewhat of a continuation of the relationship between Dutch scientists and the local population in the colonial era. The notion that Dutch researchers would receive sponsorship to go abroad using knowledge from the colonies seems imposing and based on the power relations in the former Dutch empire. As Raby shows, the US scientists used the tropics as a research ground for national interest and exerted power over the area surrounding the research station²⁸⁷. Likewise, WOTRO's actions in the tropics seem to be a continuation as well as a manner of holding onto scientific power in former colonial areas and beyond. As such, Dutch research under WOTRO can also be seen in the context of a Dutch desire to continue tropical research and hold on to the possibility of conducting tropical research. The justification for WOTRO's existence as an organisation that applies knowledge gained in the colonies to other countries is not convincing.

WOTRO and Suriname

After several years of discussions and under the influence of the independence of New Guinea, Wosuna and Wong conglomerated to form WOTRO. For Suriname, the foundation of WOTRO meant a slow drop in Dutch research projects. Under Wosuna, Suriname was the focus of a group of motivated Dutch scientists to stimulate research in Suriname. Figures such as Dick Geijskes, A. A. Pulle, and Joseph Lanjouw generated a significant amount of attention for Suriname by suggesting research possibilities and dedicating parts of their lives to conducting research in Suriname. The end of Wosuna meant that Suriname lost popularity as an area of scholarly activities as the space for scientific studies became much broader²⁸⁸.

Unlike Wosuna, WOTRO allowed Dutch researchers to study the entirety of the tropics, which resulted in less attention for Suriname. Fascinatingly, Dutch scholars continued to stick to the former colonies as Indonesia became an attractive country for WOTRO-funded studies. Despite the geographical move away from the former Dutch empire, the colonial connections stayed in the influence of New Guinea's independence on WOTRO's foundation and the return of research in Indonesia.

In Suriname, the sixties and seventies were a relatively tumultuous period in which developing science and scientific institutes did not have the highest priority. The economic and political instability resulted in a brain drain and a general mass migration to the Netherlands²⁸⁹. Despite the economic and political situation, the sixties did see the development of the first university in Suriname. Consequently, researchers no longer had to be trained abroad²⁹⁰. Except for the first university, it was also the period

²⁸⁷ Raby, *American Tropics*, 57-58.

²⁸⁸ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4, 8-10.

²⁸⁹ Hoefte, *Suriname in the Long Twentieth Century*, 110-112.

²⁹⁰ Gordijn, Bruijning and Voorhoeve, *Encyclopedie Van Suriname*, 618.

of the long-expected independence in which the Netherlands declared Suriname a fully independent country. The process towards Surinamese independence was not without issues. The self-interest of the Dutch government rushed the negotiations, as the Labour government wanted to ensure that the autonomy of Suriname took place under their rule. Despite the issues and occasionally pressed communication between the Netherlands and Suriname, Suriname gained independence in 1975²⁹¹.

²⁹¹ Hoefte, *Suriname in the Long Twentieth Century*, 112.

Conclusion

Tropical research in a period of decolonisation

The decolonisation of the Dutch Empire took different forms in different countries. In Indonesia, it was short and violent²⁹². For Suriname, the process was significantly longer and filled with debate²⁹³. During the gradual decolonisation process of Suriname, Wosuna and WOTRO were founded. As the foundation of Wosuna began in the same year as the autonomy of Suriname, decolonisation proceeded at the same time as Dutch researchers became eligible for Wosuna grants²⁹⁴. Ten years later, WOTRO was founded just after the independence of Netherlands New Guinea²⁹⁵. In this thesis, I aimed to show how the two research organisations operated in Suriname in the context of the decolonisation of Suriname and the Dutch Empire more generally. Based on my analysis of the events in the Dutch Kingdom between 1945 and 1975, I have concluded that the binding factor throughout the existence of Wosuna and the coming into existence of WOTRO was the possibility for Dutch researchers to continue their tropical research despite the ongoing decolonisation processes. The interests of the individuals living in the country were often of secondary importance. The actions of the researchers connected to both organisations are mainly centred around the continuation of Dutch tropical research. Dutch researchers advocated for their presence by stressing the importance of Dutch tropical research for the inhabitants of the countries, yet the actions of Wosuna and WOTRO imply that this was mostly rhetorical to justify Dutch scientific presence in a country.

From the foundation of Wosuna onwards, it must be noted that the founding individuals of Wosuna were extraordinarily passionate about Suriname. However, Suriname was not the focus of the Dutch scholars who founded Wosuna. Tropical research was the most vital reason for the foundation of Wosuna. The members of Wosuna especially showed remarkable dedication to Dutch research in the tropics. From Lanjouw's opening speech onwards, the stress on Dutch tropical research can be found in any of Wosuna's publications. The year reports of Wosuna are filled with references to the importance of Dutch science in Suriname²⁹⁶. By sponsoring research in Suriname, the presence of Dutch scientists was justified and deemed necessary. Scholars such as Lanjouw and Geijskes spent large parts of their careers in Suriname, assisting other scholars in their efforts in Suriname. The fear of violent decolonisation, as happened in Indonesia, likely caused them to dedicate themselves to ensuring that research could continue in Suriname. Their advocacy for Dutch tropical research in Suriname resulted

²⁹² Vickers, *A History of Modern Indonesia*, 102-104, 116.

²⁹³ Oostindie and Klinkers, *Decolonizing the Caribbean*, 90.

²⁹⁴ Netherlands Foundation 1954-1959, 7.

²⁹⁵ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4-5.

²⁹⁶ Stichting Wetenschappelijk Onderzoek 1954, 9-11.

in one of the most successful research organisations in Suriname. Wosuna guaranteed Dutch tropical research could continue in Suriname despite the independence of Suriname becoming a possible prospect.

The presence of Wosuna and its sister organisation, Wong, resulted in research that contributed to the prosperity of the inhabitants of these countries, yet especially allowed Dutch scientists to continue their tropical studies. After Indonesia's rapid and forced decolonisation, the foundation of Wosuna and Wong can be interpreted as a way to ensure Dutch scientific presence in both areas. The independence of the Netherlands New Guinea posed a temporal challenge for Wong. Their research space was now lost, yet it did speed up the foundation of a general organisation for tropical research²⁹⁷. WOTRO replaced Wosuna and Wong, allowing Dutch scholars more liberties in their tropical research as the connection between the former colonies was largely lost.

The foundation of WOTRO resulted in a return of Dutch research to Indonesia and an eventual decrease in sponsored studies in Suriname and New Guinea²⁹⁸. By framing WOTRO as an organisation for tropical research, WOTRO was not directly connected to the former colonies. However, as WOTRO openly admits, WOTRO did aim to spread knowledge gained in the Dutch colonies. The increase in the number of studies in Indonesia and the rapid foundation of WOTRO after the independence of New Guinea indicated that the Netherlands desired to keep the former colonies as spaces of research. As Raby and Arnold have shown, the term 'topics' also has a cultural meaning that goes far beyond the geographical meaning²⁹⁹. Tropical research is not without ties to imperialism. Meanings were given to the tropics by travelling adventurers and naturalists. Presenting WOTRO as a tropical organisation that ensured tropical knowledge gained during the colonial period would be transferred to the next generation of scientists was not the complete story. WOTRO ensured that research could continue in the former colonies and sponsored many studies in Indonesia.

Wosuna in Suriname

The actions of the Dutch researchers involved with Wosuna and WOTRO gave rise to a significant number of studies. Some of these were useful for the inhabitants of the countries. Yet, Wosuna's focus was allowing Dutch people to conduct tropical research and gain international prestige. As the Brokopondo Research project shows, Wosuna mentioned they were in touch with international researchers from respected organisations yet did not reflect upon the Surinamese aides they had assisting them³⁰⁰. As we saw in the newspaper articles, Wosuna rarely mentioned the assistance they

²⁹⁷ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 4-5.

²⁹⁸ Ibidem, 8.

²⁹⁹ Raby, *American Tropics*, 5, and Arnold "Illusory Riches", 8.

³⁰⁰ Netherlands Foundation 1963, 20-22.

received from locals despite receiving logistical and scientific assistance from the Surinamese³⁰¹. Wosuna presented itself as an organisation that would benefit Suriname, yet barely offered the Surinamese a chance to partake in scientific research.

As a consequence of Wosuna's approach to sponsoring scholarship in Suriname. Research in Suriname remained a Dutch enterprise. Dutch individuals received sponsorship to go to Suriname. Surinamese and Antillean scholars could merely use Wosuna's funds to study their own country from the Netherlands³⁰². The option for Surinamese and Antilleans to use funding also was challenging to discover, as I could only find one newspaper article about it. The notion that Surinamese and Antilleans could not study their own country seems to be an active exclusion of Surinamese and Antillean researchers. The Surinamese could assist Dutch researchers but not directly research their country.

Wosuna's exclusion of Surinamese individuals matches a general pattern of continuous Dutch influence in Suriname. After the Surinamese autonomy in 1954, Dutch involvement remained present in Suriname. As Rosemarijn Hoefte shows, Dutch people remained present in the management of the BSM and later SURALCO³⁰³. Likewise, Hans Buddingh' mentioned that the person who recommended the construction of the Brokopondo dam was Dutch³⁰⁴. As such, Wosuna's influence in Suriname matched a general Dutch continuous presence in Suriname. Despite being an autonomous country within the Kingdom of the Netherlands, the Dutch influence in Suriname remained present. Several vital decisions for the Surinamese economy were influenced by Dutch individuals.

WOTRO in Suriname

The foundation of WOTRO allowed for research in many more countries, resulting in a shift in the number of studies that received sponsorship in Suriname and the Netherlands Antilles. This shift was noticed and commented upon by Antillean newspapers. Despite less research in the Netherlands Antilles and Suriname, the Antillean newspaper *Amigoe di Curacao* continued to write about the actions and studies of interest to inhabitants of the Netherlands Antilles³⁰⁵. In Suriname, the attention to the actions of WOTRO lessened compared to the attention given to Wosuna. The lessened attention for WOTRO cannot be seen as strange when considering that the organisation of WOTRO did not focus on Suriname specifically, and the amount of research in Suriname lessened significantly under WOTRO³⁰⁶.

³⁰¹ Activiteiten Stichting Wosuna." 1.

³⁰² "Subsidie-aanvragen Wosuna," 8.

³⁰³ Hoefte, *Suriname in the Long Twentieth Century*, 118-119.

³⁰⁴ Buddingh', *Geschiedenis van Suriname*, 306.

³⁰⁵ "Ant-projecten van WOTRO," 8.

³⁰⁶ Stichting voor Wetenschappelijk Onderzoek van de Tropen 1964-1989, 8.

When looking at the actions of the Dutch Wosuna and WOTRO scientists in Suriname, it becomes clear that the decolonisation of the Dutch empire affected their actions. The fast decolonisation of Indonesia went hand-in-hand with a rise in Dutch scientific interest in Suriname. As such, the fear of no longer being able to conduct tropical research seems to have affected Dutch scientists. From both a political and a scientific perspective, the Dutch appear to have a greater amount in Suriname after the decolonisation of Indonesia³⁰⁷. In 1962, the independence of New Guinea was a strong motivator for the faster development of an organisation for tropical research³⁰⁸. Again, the decolonisation of a part of the former empire motivates the development of an organisation for tropical research. The decolonisation of the Dutch Empire thus caused tropical researchers to fear the potential end of their research.

The foundation of both Wosuna and WOTRO are closely related to the events in the Dutch Empire. The two organisations allowed for Dutch presence in the former colonies. This presence allowed the Dutch to continue their tropical research despite the decolonisation. The drop in research in Suriname after the foundation of WOTRO suggests that most scholars using the Wosuna and WOTRO scholarships were especially interested in conducting tropical research rather than research in Suriname specifically. Some researchers, such as Lanjouw and Geijskes, did focus on Suriname³⁰⁹. For most researchers, the possibility of conducting tropical research was vital, and it did not matter that it was in Suriname.

The lack of reflection on why Suriname was picked as an area of research in the 1950s, after several centuries of limited Dutch scientific attention, further strengthens the notion that tropical research in Suriname functioned as a surrogate for tropical science in Indonesia. The attention created for Suriname by Wosuna faded after the foundation of WOTRO, implying that the temporal interest from scholars in Suriname was predominantly caused by the possibility of conducting tropical research in Suriname.

Wosuna and WOTRO were founded by Dutch researchers who aimed to keep Dutch tropical research alive. The research produced by these organisations would also be useful for the inhabitants of the country in which the research took place. However, as we have seen in the Brokopondo Research Project and Operation Grasshopper, the Dutch scientists behind these projects did not necessarily have the best interest of the Surinamese people in mind. Dutch prestige and international recognition often were of greater importance than the countries in which the research took place. National researchers

³⁰⁷ Oostindie and Klinkers, *Decolonizing the Caribbean*, 64, 72.

³⁰⁸ "Onderzoek van Tropen Belangrijk," 12.

³⁰⁹ Stichting Wetenschappelijk Onderzoek 1954, 6, 9-11.

did not receive credit, and local assistants remained unmentioned. The actions of Wosuna and WOTRO thus did not always represent the best interest of the countries in which the studies took place.

Further research

The continuation of the existence of WOTRO could be fascinating for future research. As WOTRO continues to exist, it would be fascinating to see how an organisation that came out of two organisations closely tied to the colonies developed into the 21st century. WOTRO portrayed itself as an organisation built on knowledge gathered in the colonies. The current rhetoric surrounding WOTRO could prove a fascinating research topic. The role of WOTRO in Indonesia also seems worthy of more research, as Indonesia quickly became one of the most popular countries in which WOTRO sponsored studies.

Another interesting topic to research would be the development of WOTRO as an organisation for development aid. WOTRO started as a foundation for tropical research and slowly turned into an, as they state on their site, organisation for research in “low and middle-income countries”³¹⁰. The shift from a foundation for Dutch tropical research to a foundation supporting countries in the Global South is not intuitive. It would thus be interesting to see how WOTRO developed over time.

For future research, a comparative approach to research in Suriname could be interesting. In this thesis, I have compared the development of Dutch scientific research in Suriname to Indonesia. Yet, as I have shown, the comparison does not always work, as Indonesia and the Netherlands have a significantly different relationship than Suriname and the Netherlands. However, comparing the development of science in Suriname in the twentieth century to British Guyana or Guiana might be a fruitful comparison. The history and development of the Guyanas could be more similar to Suriname than Indonesia, despite Suriname and Indonesia both being former Dutch colonies. Despite Guiana and British Guyana being part of different European empires, the development of Suriname potentially has more in common with them than with Indonesia.

³¹⁰ See WOTRO’s site <https://www.nwo.nl/en/wotro-science-for-global-development>. Accessed on 29-09-2023.

Reference List

- Arnold, David. "‘Illusory Riches’: Representations of the Tropical World, 1840-1950." Singapore *Journal of Tropical Geography* 21, no. 1 (2000): 6–18. <https://doi.org/10.1111/1467-9493.00060>.
- Boeseman, M. "The Genus *Hypostomus* Lacépède, 1803, and Its Surinam Representatives (siluriformes, Loricariidae)". *Zoologische Verhandelingen* 99, no. 1 (January 1968): 1–89.
- Buddingh', Hans. *Geschiedenis Van Suriname*. Utrecht: Spectrum, 1995.
- Cappelle, H. van. *De Binnenlanden van het District Nickerie : Lotgevallen en Algemeene Uitkomsten van eene Expeditie door het Westelijk Deel der Kolonie Suriname in September en October van het Jaar 1900*. Baarn: Hollandia, 1903.
- De Vraagbaak. Almanak van Suriname 1920*. H. van Ommeren: Paramaribo, 1919. Published annually.
- van Donselaar, Johannes. "Water and Marsh Plants in the Artificial Brokopondo Lake (Surinam, S. America) During the First Three Years of Its Existence". *Mededelingen van het Botanisch Museum en Herbarium van de Rijksuniversiteit te Utrecht* 299, no. 1 (January 1968): 183–196.
- Foundation for Scientific Research in Surinam and the Netherlands Antilles (Utrecht). *Biological Brokopondo Research Project, Surinam: Progress Reports*. Utrecht: Foundation for Scientific Research in Surinam and the Netherlands Antilles, 1970.
- Gordijn, W, C.F.A Bruijning, Jan Voorhoeve. *Encyclopedie Van Suriname*. Amsterdam: Elsevier, 1977.
- Hoefte, Rosemarijn. *Suriname in the Long Twentieth Century: Domination, Contestation, Globalization*. New York, NY: Palgrave Macmillan, 2014. <https://doi.org/10.1057/9781137360137>.
- Janssen, Roger. *In Search of a Path: An Analysis of the Foreign Policy of Suriname from 1975 to 1991*. Caribbean Series, 27. Leiden: KITLV Press, 2011. <https://doi.org/10.1163/9789004253674>.
- Lanjouw, Joseph. *Lanjouw Jubileum Serie: Uitgegeven ter Gelegenheid van het Veertigjarig Ambtsjubileum van J. Lanjouw, 1926-1966*. Mededelingen van het Botanisch Museum en Herbarium van de Rijksuniversiteit te Utrecht, No. 220-255. Utrecht: Botanisch Museum en Herbarium, 1966.
- Leentvaar, P. "Hydrobiological Observations in Surinam with Special Reference to the Man-made Brokopondo Lake". *Studies on the Fauna of Suriname and Other Guyanas* 15, no. 1 (January 1975): 1–173.
- Merian, Maria Sibylla. *Metamorphosis Insectorum Surinamensium: Of de Verandering der Surinaamse Insecten*. Zutphen: Walburg Pers, 1982.

Mol, Jan, Bernard de Mérona, Paul Ouboter & Shamita Sahdew. "The fish fauna of Brokopondo Reservoir, Suriname, during 40 years of impoundment". *Neotropical Ichthyology* 5, no. 3 (2007): 351-368, DOI: 10.1590/S1679-62252007000300015.

Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna): *Report for the years 1954-1959*. Paramaribo: Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna), 1960.

Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna): *Report for the year 1961*. Paramaribo: Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna), 1962.

Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna): *Report for the year 1963*. Paramaribo: Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna), 1964.

Netherlands Foundation for the Advancement of Tropical Research (WOTRO): *Report for the year 1964-1965*. The Hague: Netherlands Foundation for the Advancement of Tropical Research (WOTRO), 1966.

Oostindie, Gert, and Inge Klinkers. *Decolonising the Caribbean: Dutch Policies in a Comparative Perspective*. Amsterdam: Amsterdam University Press, 2003.

Raby, Megan. *American Tropics: The Caribbean Roots of Biodiversity Science*. Flows, Migrations, and Exchanges. Chapel Hill: University of North Carolina Press, 2017.

Schoor, Willem Jan van der. "Zuivere en Toegepaste Wetenschap in de Tropen : Biologisch Onderzoek Aan Particuliere Proefstations in Nederlands-Indië 1870-1940." PhD Diss., University of Utrecht, 2012.

Snelders, Stephen. *Vrijbuiters Van De Heelkunde : Op Zoek Naar Medische Kennis in De Tropen, 1600-1800*. Amsterdam: Atlas, 2012.

Stichting voor Wetenschappelijk Onderzoek van de Tropen. *Tropical Research in Development: Wotro, 1964-1989*. 's-Gravenhage: Stichting voor Wetenschappelijk Onderzoek van de Tropen, 1989.

Stichting Wetenschappelijk Onderzoek Nieuw-Guinea, Stichting Papua Cultureel Erfgoed (PACE): *Report for the Period 1961 - April 1964*. Den Haag: Z.W.O, 1964.

Stichting Wetenschappelijk Onderzoek Suriname- Nederlandse Antillen (Wosuna): *Jaarbericht 1954*. Paramaribo: Netherlands Foundation for the Advancement of Research in Surinam and the Netherlands Antilles (Wosuna), 1955.

Vickers, Adrian. *A History of Modern Indonesia* (version 2nd ed.). Cambridge Core. Cambridge: Cambridge University Press, 2012. <https://doi.org/10.1017/CBO9781139094665>.

Wagenaar Hummelinck, P. "Twintig Jaren Studiekring 1945-1965." *New West Indian Guide / Nieuwe West-Indische Gids* 46, no. 1 (1968): 3–11. <https://doi.org/10.1163/22134360-90002246>.

Wille, Robert-Jan. *Mannen van de Microscoop: de Laboratoriumbiologie op Veldtocht in Nederland en Indië, 1840-1910*. Nijmegen: Vantilt, 2019.

Newspaper articles

"Activiteiten Stichting Wosuna in Suriname – 1963." *Nieuw Suriname*, December 9, 1963. Delpher.

"Ant-projecten van WOTRO." *Amigoe di Curacao: Dagblad voor de Nederlandse Antillen*, August 24, 1974. Delpher.

"Bosonderzoekingen voor Wosuna." *De Surinamer*, October 13, 1954. Delpher.

"Dr. Repp bestudeert Mijwormen in Suriname." *Vrije Stem*, July 12, 1974. Delpher.

Een lezing." *Vrije Stem*, January 30, 1975. Delpher.

"Gunstig perspectief voor Suriname's opbloei: Ontdekking van bauxiet van grote betekenis." *Twentsch Dagblad Tubantia*, June 15, 1951. Delpher.

"Natuurwetenschappelijke expeditie naar Suriname." *Nieuwsblad van Friesland*, July 26, 1948. Delpher.

"Onderzoek van Tropen Belangrijk." *De Tijd: Maasbode*, September 5, 1964. Delpher.

Oudeschans Dentz, F. "Suriname tijdens de regeering van Koningin Wilhelmina: Veertig jaren geschiedenis van onze West". *Arnhemsche Courant*, September 5, 1938. Delpher.

"Sociologisch onderzoek samenleving op Curacao." *Amigoe di Curacao: Dagblad voor de Nederlandse Antillen*, August 7, 1965. Delpher.

"Stagebeurzen 1966." *Amigoe di Curacao: Dagblad voor de Nederlandse Antillen*, September 29, 1965. Delpher.

"Subsidie-aanvragen Wosuna." *Nieuw Suriname*, May 11, 1963. Delpher.

"Subsidie voor beschrijving Antilliaanse Koraalfauna." *Amigoe di Curacao: Dagblad voor de Nederlandse Antillen*, April 5, 1967. Delpher.

