



Dutch Caribbean Research Platform

Towards the sustainable strengthening of the knowledge system in the Caribbean part of the Kingdom of the Netherlands

Wiebe E. Bijker & Jorien Wuite



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Jorien Wuite has recently been elected to the House of Representatives. She completed her work on this advisory report before taking her seat on 31 March 2021. She was a member of the editorial board which prepared the draft version of the report.

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Maya's Corner Cafe &
DAILY FRESH FOOD



1. Foreword

Today's world faces significant challenges, from pandemics to natural disasters, from climate change to the destruction of cultural heritage, and from the unequal distribution of wealth to the loss of our ecosystems. These challenges threaten societies worldwide, including those of the Caribbean region.

Scientific research is crucial to finding solutions. Recent experience with the COVID-19 pandemic not only demonstrates how medical research can result in the production of vaccines, but has also shown that socio-psychological research is essential if we are to understand human behaviour during a lockdown, that historical research can provide a better understanding of the long-term effects of a pandemic, and that economic research can help to promote recovery.

If scientific insights are to be practical and useful, they must be appropriate to local society. Scientific knowledge that has previously been developed elsewhere must be adapted or 'translated' to fit the local context. Whenever new scientific knowledge is sought, the research process must involve the end-users of that knowledge – policymakers, companies and the general public – at the earliest possible stage. The Caribbean knowledge system is important when addressing the challenges in the Caribbean region, when pursuing the further development of (knowledge-based) societies on the islands, when translating existing scientific insights for local use, and when performing essential new research.

The Dutch Caribbean Research Platform (DUCARP) proposed in this report is intended to strengthen the knowledge system in the Caribbean part of the Kingdom of the Netherlands. DUCARP will be a network with locations on all six islands. Together, these locations will form a platform for collaboration between researchers and the end-users of knowledge, not only on the islands themselves but throughout the Caribbean region, the European Netherlands and the rest of the world. DUCARP's staff will support researchers and institutions within the Caribbean knowledge system in initiating research projects, acquiring research funding and ensuring that the findings are applied effectively in both education and policy.

However, DUCARP cannot do so alone. The most important basis for tackling the major societal challenges is the Caribbean knowledge system itself. In addition to setting up DUCARP, the development and further strengthening of that system demands that the four countries involved pursue a joint, targeted science policy.

The authors of this report gratefully acknowledge the researchers, public sector staff and other stakeholders who generously provided their input. The entire report, from the basic principles to the suggested 'building blocks' and recommendations, is based on the experiences, expectations and ideas of these conversation partners.

2. Executive summary

The Caribbean Research Programme is administered by the Dutch Research Council (NWO) and has received funding from the Netherlands Ministry of Education, Culture and Science (OCW) since 2013. As part of this programme, the Royal Netherlands Institute for Sea Research (NWO-NIOZ) established the Caribbean Netherlands Science Institute (CNSI) on Sint Eustatius, which it continues to administer. As the end of the current funding period (December 2022) approaches, NWO has commissioned this exploration of options for the future of the CNSI. This document is not an evaluation of the current CNSI but a look ahead. Its focus is the contribution that the CNSI can make to the sustainable strengthening of the knowledge system of the Caribbean islands. What is the organization's added value? The findings, conclusions and recommendations set out below are based on interviews conducted with various stakeholders between March 2020 and March 2021.

Many interviewees express concern about the significant fragmentation of the current knowledge system which, they contend, shows little cohesion or coordination. Several suggest that maintaining a presence at a single location does nothing to promote connections between the six islands. This report therefore calls for a new, decentralized structure in which there is a physical presence on each of the islands. We propose a structure which offers effective support to researchers, knowledge institutes and consortia. This structure will strengthen cohesion, collaboration and exchange throughout the Kingdom of the Netherlands. It will build bridges between all the various scientific disciplines and their specific research approaches, between research and education, between research and practice. It will bring science closer to society. Such a structure is essential if the Caribbean knowledge system is to be strengthened in a sustainable way, fully embedded within the broader Dutch and international knowledge system, and thus made future-proof. Research funding is not enough; ongoing investment in the knowledge system itself is needed if these aims are to be achieved.

This report advises the establishment of a Dutch Caribbean Research Platform (DUCARP): a network organization with a coordinating centre on Sint Maarten and an 'anchor point' on each of the five other islands. DUCARP will undertake activities which are needed to strengthen both the quality and quantity of scientific research on and about the Caribbean islands. This new organization can only succeed if the people and institutions of those islands can claim ownership. Following a successful start-up phase, further development to become an international centre of expertise for issues facing all Small Island Developing States (SIDS) may be considered.

This report makes the following six recommendations:

(1) *Ensure continuity*: maintain investments in a structure which will promote and facilitate the sustainable development of the knowledge system in the Caribbean part of the Kingdom. (2) *Build a broad network*: allow the existing CNSI to undergo a transition to become a broad-based network, both in terms of scientific disciplines and geographic outreach. This will entail an interdisciplinary mission with a physical presence on each of the six islands. (3) *'Of and for' the islands*: establish local ownership, with responsibility for activities placed as close as possible to the researchers, institutions and communities (including the diaspora) of the islands themselves. (4) *Create a connective, facilitative platform*: the emphasis should be on supporting and interconnecting researchers, institutions, fields of knowledge and the various forms of scientific practice on the six islands. (5) *Work towards becoming a SIDS knowledge centre*: as a practical blueprint, use a widely supported Caribbean Knowledge Agenda which will be produced on the basis of the results of an earlier survey. After a few years of successful operation, consider expansion to become an international SIDS knowledge centre. (6) *Here to stay*: do not regard the new organization as a temporary structure but assume that it will be a permanent component of the knowledge system of the six Caribbean islands.

3. Background and terms of reference

Since 10 October 2010, the Kingdom of the Netherlands has comprised four separate countries: Aruba, Curaçao, the Netherlands and Sint Maarten. The Netherlands consists of the European territory and three islands in the Caribbean region: Bonaire, Saba and Sint Eustatius. The Dutch research community therefore has a responsibility to devote attention to Caribbean issues, not only in sociological, cultural and economic disciplines but also in the natural sciences, ecology and the health sciences. This implies close cooperation with and between knowledge institutes and other parties in all parts of the Kingdom.

In 2012, the Ministry of Education, Culture and Science (OCW) began preparations for a new Caribbean Research Programme. Responsibility for its implementation was assigned to NWO and the programme was launched in 2013. It was intended to give a fillip to research on (and concerning) the Caribbean islands, while also strengthening the knowledge system of those islands following the constitutional reform of the former Dutch Antilles. The initiative had two main components: the NWO research grants programme (annual budget €2.0 million), and the establishment of the Caribbean Netherlands Science Institute (CNSI) on Sint Eustatius.

The CNSI (annual budget €0.5 million) is a facility which provides working accommodation and a basic infrastructure for researchers, students and other knowledge workers (e.g. from different Dutch ministries). In addition, the CNSI organizes educational activities and takes part in research projects. The CNSI was established by the NWO institute NIOZ, which remains responsible for its management and administration. The CNSI has its own Advisory Board (RvA-CNSI), made up of representatives of various Dutch knowledge institutes and the government of Sint Eustatius. Representatives of OCW, NIOZ and NWO attend meetings as non-voting observers. For policy purposes, the CNSI has fallen under the NWO Caribbean Research Programme Committee (PCCO) since 2020.

In 2018, OCW extended its funding of the CNSI to year-end 2022. At this time, the ministry requested NWO to re-examine the governance of the CNSI and to develop plans for the future of the institute once the current funding period ends. With particular attention devoted to opportunities for better integration and increased synergy between the NWO research programme and the CNSI.



Following extensive discussions, in March 2020 the PCCO decided to commission two independent rapporteurs to explore various options for the future of the CNSI. This report is the result. The remit extended to the rapporteurs is based on the following general principles. (The complete text of the instructions, including specific questions to be answered by the rapporteurs, is given in Appendix 10.5):

- The main objective of the exploration is to identify ways in which to achieve a sustainable strengthening of the knowledge system in the Caribbean part of the Kingdom. The report should not be an evaluation of the current arrangements but an inventory of requirements and possibilities.
- The rapporteurs are free to explore all options and scenarios, from the continuation of current operations unchanged to the closure of the CNSI, and all points in between.
- The rapporteurs are to maintain full impartiality. They are to develop scenarios for the future of the CNSI based on observation, general input and interviews with relevant stakeholders, both on the Caribbean islands and in the European Netherlands.

Having accepted the commission, the rapporteurs began the exploration process almost immediately in March 2020.

4. Methodology

The start of the exploration coincided with the outbreak of the global COVID-19 pandemic, whereupon the emphasis was necessarily placed on remote, online interviews. The overall process was conducted in three, partially overlapping, phases. Prior to each phase, objectives were formulated and relevant conversation partners selected (see Appendix 10.3). Almost all interviews were conducted jointly by both rapporteurs. The input of young researchers and young professionals was obtained during an online workshop (see Appendix 10.4). Secretarial support was provided by NWO throughout the process.

The purpose of Phase I was to examine and achieve a better understanding of the current situation, thus enabling opportunities for renewal to be identified. Phase II was primarily concerned with defining ‘building blocks’ and structural principles for one or more future scenarios. Phase III involved evaluating and coalescing initial ideas, and assessing the likely level of support for various options. It will be obvious that these phases cannot be regarded as self-contained, whereupon the input of most interviewees was relevant in more than one phase. Some took part in at least two separate interviews.

The three phases

I. Understand, identify, describe

- a. Understanding the current situation and structure
- b. Understanding the practical, administrative and financial scope for renewal.

II. Define elements for future scenarios

- a. Formulate fundamental principles
- b. Develop ‘building blocks’

III. Assess, coordinate, build

- a. Assess ideas, coordinate scenarios
- b. Build support

Based on the Phase I interviews, the following five general questions were defined in Phase II to provide strategic dimensions for the future CNSI.

The answers to these questions were used as building blocks for the various scenarios, as described in Chapter 7.

Question	Chapter 7
1. What should the CNSI of the future do?	7.3.1 Activities
2. What should be its scientific focus/scope?	7.3.2 Thematic profile
3. What should be its geographic scope?	7.3.3 Scope
4. Where should the new CNSI be based?	7.3.4 Location
5. What form should the new CNSI take in terms of organization and governance?	7.3.5 Organization & embedding

Also based on the interviews, a number of principles for the development of future scenarios were formulated in Phase II, as described in Chapter 6. They can be regarded as ‘essential preconditions’.

The following chapters include a number of direct quotes (here in translation) which are used with the permission of the interviewees concerned.

5. General findings

The interviews produced a wealth of useful information, insights and opinions. This chapter draws upon this material and offers a brief sketch of the knowledge landscape of the Caribbean islands of the Kingdom, including the position of the current CNSI within that landscape. The description focuses on organizations with research tasks and on aspects which are significant to the exploration.

5.1 The knowledge landscape of the Caribbean islands of the Kingdom

The Netherlands Ministry of Education, Culture and Science (OCW) is responsible for research and science in the Caribbean Netherlands, i.e. on Bonaire, Sint Eustatius and Saba. Curaçao, Aruba and Sint Maarten are self-governing countries within the Kingdom and do not therefore fall under the direct responsibility of OCW. Policy is discussed and, where appropriate, coordinated during the regular OCW Four Countries Consultation Meetings.¹ Each of the six islands of the Kingdom of the Netherlands has various types of research organizations. Almost all link research with other knowledge-related activities such as education (this is particularly true of the universities), knowledge utilization, and outreach (e.g. by NGOs). The islands are also home to some knowledge institutes (such as American medical schools) which offer educational courses on a commercial basis. These organizations fall outside the scope of this report.

The knowledge landscape is notable for its compact scale, fragmentation between (but also within) the six islands, and a marked lack of structured collaboration with other institutes in the region, in the Netherlands, or with the global knowledge community.

The six islands have three publicly funded² universities: the University of Curaçao (UoC), the University of Aruba (UA) and the University of Sint Martin (USM). Their primary activity is the provision of education; research plays only a secondary role. Unlike their counterparts in the European Netherlands, these universities also offer programmes at Higher Vocational Education (HBO) level, in line with the higher education model adopted by the English-speaking countries. Given the limited size of the islands and their (potential) student population, the universities tend to focus on a small number of specific subjects which are particularly relevant to local requirements. This applies to both education and research. Coverage of other subjects is often achieved through collaboration with individuals and institutions in the

¹ The 'special municipalities' of Bonaire, Saba and Sint Eustatius are sometimes collectively termed 'the BES islands' while Aruba, Bonaire and Sint Maarten are known as the CAsT islands.

² Institutions which derive at least 50% of their income from the public purse.

European Netherlands (or elsewhere³), who assume partial responsibility for education and research in these domains. Together, the three universities and the Instituto Pedagogico Arubano (IPA) form the UNICARIB foundation, an alliance which represents the interests of publicly funded higher education and research on the islands. Efforts are currently being made to breathe new life into UNICARIB.

“A fresh look is needed to turn ‘brain drain’ into ‘brain circulation.’”

Jonathan Johnson

Apart from the universities, the islands also have a number of private initiatives, often non-profit foundations or societies, which focus on research or which need research to support their core activities. They may receive direct funding from local governments. Among the better known examples are CARMABI (Caribbean Research and Management of Biodiversity), which specializes in ecology, marine biology and nature management, the CBHRI (Curaçao Biomedical & Health Research Institute) and the Caribbean Prevention Centre | Fundashon Prevenshon, active in the field of preventive healthcare. These organizations generally work autonomously; collaboration with local universities or other knowledge institutes is limited. Other organizations, such as the Dutch Caribbean Nature Alliance (DCNA) and its affiliated nature parks, need funded knowledge in order to perform their work and may also undertake some research of their own. A number of independent researchers are active on the islands. They are not affiliated with a university or any other knowledge institutes and generally offer their time, knowledge, know-how and skills on a project basis. In recent years, highly qualified people on the six islands, particularly younger scientists and professionals, have organized themselves effectively and established a strong position (see below).

Many people on the islands complain – probably with good cause – of a ‘brain drain’. Talented young people relocate to the European Netherlands (or elsewhere) to pursue their education and do not return, partly due to the lack of suitable employment opportunities on the islands. As a result, a significant number of talented academics and young professionals are no longer resident on the islands but form a diaspora, mostly in the Netherlands but also in other countries such as the United States. These enthusiastic, highly educated people are keen to support the development of their home islands but opportunities to do so are few. Much of this valuable human capital is therefore going unused. There are a number of organizations, such as AMA (Asosiasion Mediko di Antias) and CARAF (Caribbean Research Acquisition Forum), which focus specifically on this group. They bring people together, offer them a podium and a voice, and wherever possible attempt to link the need for highly educated people to the knowledge and ambitions of their members. WeConnect is a foundation which organizes many activities for young Caribbean graduates and students living on the islands or in the Netherlands. It often does so at the behest of different authorities within the Kingdom of the Netherlands.

³ UA, for example, works alongside KU Leuven (Belgium) on the SISSTEM programme. The USM has close ties with the University of the Virgin Islands (UVI) and other institutions in the wider region.

5.2 Scientific research on the Caribbean islands of the Kingdom

Research is undertaken at the three public universities (UoC, UA, USM) and IPA, at other research institutions and by independent researchers. Many research projects are initiated in the European Netherlands by Dutch universities, universities of applied sciences and other institutions, and may or may not involve local Caribbean organizations and individual researchers. Research funding is usually provided by NWO or ZonMw, relevant ministries, private sources or the European Union. The governments of the Caribbean countries of the Kingdom have not allocated any significant amount to support research in their respective budgets.

Dutch knowledge institutions (universities and research institutes) regularly conduct research on the Caribbean islands. Some run education or research programmes which focus, at least in part, on themes of importance to the region. Many studies are planned and prepared entirely in the European Netherlands. In the majority of cases, researchers visit the region to collect data which is then processed in the Netherlands. A small number of institutions regularly send students to the Caribbean islands on research placements. The value of this research in terms of any structural strengthening of the regional knowledge system is limited, although there have been some instances of active collaboration with Caribbean researchers and knowledge institutions.

In 2014 and 2016, NWO funded a total of 18 projects which involved research on or about the Caribbean region as part of the Caribbean Research programme, the budget for which is provided by the Ministry of OCW. All 18 projects were led by European Dutch institutions, since it was not until 2019 that public universities on the Caribbean islands were able to submit project proposals directly to NWO. In the first funding round, no collaboration with Caribbean institutions or researchers was required. However, this was introduced as a qualifying criterion in the second round. In the third (and most recent) call for this programme, specific attention has been devoted to capacity-building and the strengthening of the regional structure by means of two large-scale research programmes to be conducted primarily in the region itself.

In addition to this specific funding line, Caribbean research also plays a part in other NWO programmes and (to an extent) those of ZonMw, with funding derived from other European Dutch institutions, national ministries and the EU/EC. If all the various funding bodies were to coordinate their efforts and combine forces, the system would be very much more transparent and accessible, while the value of investments would increase. At present, not all national research funding opportunities are open to researchers from all parts of the Kingdom. For example, not all ZonMw programmes (for research in medical sciences and healthcare) accept proposals from Caribbean researchers. Such discrimination only serves to compound the complexity and fragmentation of the knowledge system in the Caribbean part of the Kingdom.

The three state-funded universities (UoC, UA, USM) do not have significant financial or physical resources available to support scientific research. Within the current system, professors and other academic staff have very little opportunity for research unless it is funded entirely by external parties.

The budgets of the institutions are simply not sufficient to support both education and research activities, whereupon the emphasis is inevitably placed on the former. Nevertheless, a significant number of research projects have indeed been conducted in recent years with funding from the EU (e.g. SISSTEM, UA) or other sources. Many have involved collaboration with institutions in the European Netherlands or elsewhere. These activities and the success of researchers in the diaspora demonstrate that there is much interest in, and potential for, excellent and societally relevant research, both fundamental and applied.

Researchers and institutions frequently encounter obstacles when attempting to secure funding. Such obstacles are often due to a lack of experience, process knowledge and support in submitting grant applications. Moreover, the universities of the Caribbean region cannot rely on regular, guaranteed direct funding which would enable them to pay for the basic infrastructure and services (workplaces, standard equipment, financial management, supervision of junior researchers) which is necessary to conduct effective research. Partly for these reasons, simply increasing the NWO budget for research on the islands would not have the desired effect of achieving a sustainable strengthening of the knowledge system. Flanking policy is necessary, with interventions to promote capacity building, community development, support for researchers and institutions in identifying and approaching potential funding sources, establishing or strengthening links between institutions in all parts of the Kingdom (including the exchange of knowledge and people), and raising public awareness of the value of science and research. The same applies to the European funds which, in principle, accept proposals from the islands but remain underutilized due to their complexity on the one hand and the weaknesses of the knowledge system on the other.

In terms of the research disciplines, the current focus of the regional institutions is very much on the social sciences and humanities. Research in the physical and natural sciences⁴ is generally conducted in other countries (including the European Netherlands) by researchers who have little or no connection with the islands. However, new initiatives such as SISSTEM at the University of Aruba may be an indication of change. In 2019, NWO conducted an online survey to identify the knowledge requirement of people living on the islands. The results indicate significant interest in regionally important topics such as language, education and identity, the issue of economic activity (especially tourism) versus liveability and the conservation of natural systems, and the desire for a healthier life without poverty. The topics cited by respondents are largely in line with those of the United Nations' SIDS⁵ framework (including the SAMOA pathway⁶). The one exception is 'natural disasters' which few respondents thought to mention.

The relative weakness of the current knowledge system is, in the first instance, due to: (1) the ongoing lack of resources to support research, and (2) a lack of coordination, contact, dialogue and collaboration in various relevant domains and at various levels of scale within the Kingdom. This situation conflicts with

⁴ E.g. marine and terrestrial biology, ecology, geosciences including volcanology, etc.

⁵ SIDS: 'Small Island Development States'

⁶ SAMOA: 'SIDS Accelerated Modalities of Action'

the widely-held belief that research and innovation, co-creation and the dissemination of knowledge (through education, the media and other channels) all play an extremely important role within a modern knowledge-based society. There is certainly no shortage of motivation and talent, particularly among the younger generation. However, many of those young people choose not to remain on the islands due to the lack of opportunities. People and institutions in the European Netherlands often have (too) little knowledge of the Caribbean islands. They are unaware of the unique scientific and societal opportunities and challenges of the region, and seem blind to the fact that they too would benefit from closer collaboration and exchange with other parts of the Kingdom. A broader approach, based on a shared vision and geared to the longer term, would go a long way towards resolving this situation.

5.3 Position of the current CNSI within the knowledge landscape

This report is concerned solely with the future and is not an evaluation of the current CNSI. Nevertheless, various aspects of the CNSI on Sint Eustatius were raised during the interviews, especially during the first phase of the exploration. The following paragraphs offer an impression of how the interviewees view the current CNSI. Their opinions can of course differ significantly, depending on personal experiences and perspectives.

Visibility and Accessibility. The CNSI was established on Sint Eustatius in 2013 and its official opening was in April 2014. However, the visibility of the institute remains very low; it has not achieved any marked recognition. Several interviewees who were involved in setting up the CNSI have all but forgotten its existence. This is partly due to its geographic location and partly due to the narrow range of its activities. Those active in the fields of ecology and marine biology are generally more aware of the CNSI but in many cases even they have no direct connection with the institute. The chosen location of the CNSI fosters isolation and greatly reduces opportunities for network-building. For most people, even those from the other Caribbean islands of the Kingdom, visiting the institute demands a significant time investment. The location does, however, have certain advantages given its proximity to important marine biology research areas such as the Saba Bank, although interviewees that it would still be easier to reach such areas on a research ship sailing from virtually any part of the world.

Local and Regional Embedding. The CNSI on Sint Eustatius is primarily active at the local level. Although it regularly hosts foreign student placements (mostly from the European Netherlands), its research is primarily concerned with nature management. It works with local schools on an incidental basis and organizes seminars for local residents. The original aim of involving the other islands of the region in the CNSI's activities has not been achieved, whereupon the institute now operates in near-isolation. There are no firm partnerships with the three state-funded Caribbean universities. Local embedding has also been less successful than had been hoped. Several interviewees suggested that social engagement and good ties with the local community are essential preconditions for the acceptance of both the current CNSI and any successor organization. The majority of interviewees were critical (some scathingly so) about the degree of integration and societal

embedding achieved to date. The CNSI has not been successful in this respect: there is too little interaction between the institute and the island community, among whom it is seen as a *Fremdkörper* - a 'foreign body'.

Ownership and Impact. The CNSI has achieved some scientific impact because it has its own in-house researchers and forms, or has formed, part of various research consortia. However, it has achieved little or no societal impact, largely due to the fact that neither Sint Eustatius nor the wider region has any sense of 'ownership'. Most of the researchers and students working at the CNSI are from universities and other research institutes in the European Netherlands. The CNSI is therefore seen as something 'of and for' the Netherlands. This impression is reinforced by the fact that practically all members of its Advisory Board (RvA) are representatives of a European Dutch knowledge institute. Many interviewees regard the CNSI as an 'outpost' of the Netherlands, with a weak position within the local knowledge system to which it adds very little value. The authors conclude that the weak position of the CNSI is the result of choices made in 2012, not least with regard to the organizational structure, for which no blame can be attached to the current staff.

6. Basic principles

Based on the interviews, a number of general, all-encompassing principles were formulated to provide the framework for the remainder of this report. The seven basic principles set out below have informed the choice and design of the ‘building blocks’: the elements which combine to produce the proposed DUCARP. These principles are of essential importance in achieving the sustainable strengthening of the knowledge system of the Caribbean part of the Kingdom.

6.1 Ownership

The new CNSI must be ‘of and for’ the Caribbean islands of the Kingdom - not merely on paper but in practice. The islands must be able to consider themselves full owners of the CNSI and its activities. The degree to which this principle is observed will do much to determine the success of every successor organization. However, no one is claiming that regional ownership will be simple to achieve. First, a shift in attitude is required. The societies, people and organizations of the Caribbean islands must be at the forefront of the CNSI’s thoughts and actions. Priorities for research must be established within the Caribbean region itself. In addition, the structure and governance must be such as to promote and establish ownership in the long term. Having a physical ‘anchor point’ on each of the six islands, together with a steering group comprised mostly of members from the Caribbean region (whether or not still resident on the islands), can form the starting point. However, true ownership cannot be imposed from above; it must be created from the bottom up. Collaborative alliances with local organizations and individuals, a careful choice of relevant research areas, effective outreach activities and a proactive media policy can all help to create and cement engagement and the sense of ownership.

“Try to achieve real embedding which creates a genuine connection with local people and society.”

A workshop contributor

6.2 Kingdom-wide

Ideally, the CNSI should be seen to serve the entire Caribbean part of the Kingdom rather than focusing on a select group of islands such as the BES islands, the Windward Islands or the Leeward Islands. Fragmentation is one of the greatest obstacles to the further development of the knowledge system in this region. It is therefore important to promote effective cooperation throughout the Kingdom, combining strengths wherever possible. Although

the societal challenges which research is intended to address differ from one island to another, they are nevertheless comparable. Differences in emphasis, experience and knowledge between the islands can be exploited in order to create broader alliances, introduce a comparative approach, and create greater synergy. The CNSI can help to strengthen the Kingdom 'from the inside out' by facilitating cooperation in the Caribbean region and by establishing strong connections with the European Netherlands and any other country which is relevant to the knowledge system. Through the 'anchor points' on the various islands, the CNSI of the future will also be able to facilitate and support local initiatives.

“Anything that strengthens the Kingdom as a whole is worthwhile and a step in the right direction.”

Gert Oostindie

6.3 Broad disciplinary profile

The CNSI can only be of value if it does not confine itself to one or two narrow topics but is open to activities in all relevant scientific disciplines. The CNSI of the future should consciously assume the role of facilitator and bridge-builder. As such, it must avoid making a selection of topics which will automatically limit its scope and effectiveness. Adopting a 'broad profile' does not mean that the CNSI must involve itself in all disciplines and themes but it should indeed be willing to fulfil the role of facilitator across the entire breadth of scientific endeavour. This broad focus should also apply to various forms of research, not only academic and fundamental but also applied and practice-oriented. The themes of the actual research activities should be decided in consultation with all relevant stakeholders, based on the actual requirements of the region. The CNSI will initiate and guide the necessary dialogue. The thematic focus of activities will of course vary over time.

“The initiative, priorities, and choice of research disciplines must all be based on the actual needs of the islands.”

Ashley Duits

6.4 The Caribbean Knowledge Agenda

In terms of topics and content, the activities of the new CNSI should be very closely aligned to the actual knowledge requirement of the Caribbean islands. An online survey conducted by NWO in 2019 reveals that the knowledge requirement of people and organizations on the islands is very similar to the priority themes of the United Nations' SIDS agenda, SAMOA Pathway and SDGs.⁷ The interviews on which the current report is based confirm that these agendas are well known in the region and have been adopted by many organizations as a general framework for their activities. At the same time, the Caribbean islands of the Kingdom have certain specific knowledge requirements, as well as certain specific preferences and strengths in terms

⁷ SDGs: 'Sustainable Development Goals'

of knowledge and research. Any future knowledge agenda must take all this into account. The results of the online survey are currently being processed. Following broad-based consultation and dialogue, they will form the basis of the forthcoming Caribbean Knowledge Agenda.

“Our knowledge serves the sustainable development of society on the island and throughout the Caribbean region.”

Francis de Lanoy

6.5 Modular structure

If the CNSI is to play a significant role in future, its re-launch must be ambitious but practicable. We propose a phased, modular approach. The basic structure and the majority of core activities should be put in place immediately. However, there are certain activities which have a much longer lead time or which, although important, are less urgent. ‘Rome was not built in a day’, as the saying goes. Ideally, the new CNSI should therefore be designed in a way that allows extra ‘modules’ to be added when the time is ripe. This structure will also provide the necessary flexibility and make it easier to step up or wind down certain activities at a future date.

“There are many fragmented initiatives. You can achieve greater impact by bringing them all together. There is much synergy to be gained from better cooperation.”

Ashley Duits

6.6 A network organization

The CNSI of the future will gain much from having a network structure with a main centre (hub) and a physical ‘anchor point’ on each of the other islands. We see this as the best way to ensure cohesion and inclusivity, while also respecting the differences between the islands. Centralization, with locations on only one or two islands, will detract from the principle of ownership. The sense of ownership must be felt by all islands equally. This point must be carefully considered with appropriate pragmatism about the geographical, cultural-historical and social distance between the islands. It will be possible to establish ‘centres of gravity’ on all islands while also achieving complementarity and effective collaboration within the network. The islands and their institutions have their own priorities, as reflected by their specific knowledge and experience. Collaboration within the network will increase synergy and create added value. It will not be possible (nor indeed desirable) to locate all CNSI facilities and services on every island. The various points of the network, and their respective tasks, can best be set up in close consultation with the local partners, bearing in mind the specific requirements and available capacity.

“The CNSI must concern itself with all six Caribbean islands of the Kingdom. That is where the real strength of such an initiative lies.”

Ron van der Veer

6.7 Quality and independence

Within the framework outlined above, scientific quality and independence must be the leading principles of the new CNSI. Its structure, governance and working approach must promote impartiality and minimize the influence of external interests and political whims or agendas. The activities of the new CNSI must enhance the quality and impact of science and research, either directly or indirectly. Quality and independence are fundamental requirements if an ongoing, worthwhile contribution is to be made to the sustainable strengthening of the knowledge system in the Caribbean part of the Kingdom.

“Collaboration between institutes and governments is extremely important, but both will also benefit from maintaining a certain distance.”

Glenn Thodé

7. Building blocks for future scenarios

Based on the interviews with a wide range of stakeholders, the authors have been able to identify various ‘building blocks’: elements which can be assembled to produce scenarios for the future. Some elements are alternatives which achieve the same end and are thus mutually exclusive. Others can be combined or introduced one after the other as the CNSI continues to develop.

Our building blocks can be grouped within five strategic dimensions which are, in part, interdependent. The choices made within one dimension will therefore influence the choices in another. By combining various building blocks we arrive at alternative scenarios for the new CNSI. The following paragraphs consider the five strategic dimensions and their main building blocks.⁸

7.1 Activities

What should the CNSI of the future do?

The current CNSI was established to achieve a sustainable strengthening of the knowledge system in the Caribbean part of the Kingdom. This objective continues to apply and is the key consideration when defining future tasks.

Connect and Advise. The knowledge system on the Caribbean islands is notable for a high degree of fragmentation and ‘academic isolation’. There is a pressing need for structures and initiatives which create connections and promote the exchange of knowledge. In the first instance, this applies to researchers (on the islands, in the European Netherlands, and elsewhere) who are not familiar with each other’s work, which in itself stands in the way of collaboration and consortium-forming. Interviewees express a desire for a structure which actively encourages collaboration between knowledge institutes and individual researchers throughout the Kingdom, forming an attractive, low-threshold ‘meeting place’. Specifically, collaboration is sought: (1) within the Caribbean part of the Kingdom, (2) between the Caribbean islands and the European Netherlands, and (3) between the Caribbean islands and other countries which do not form part of the Kingdom. There is a need for a platform which acts as a contact point, ‘pathfinder’ and facilitating partner, providing proactive information and playing a connective role in establishing contacts and alliances.

⁸ A more detailed description of the building blocks is given in Appendix 10.1.

“Everyone wishes to help promote sustainable growth, but very few know how. This is where sound scientific advice comes into its own.”

Marnix van Rij & Alida Francis

Such a platform should, either on request or at its own initiative, develop connections between researchers, universities and other knowledge institutes, bringing together partners who will contribute much to the regional knowledge system. Consortia can be formed to embrace representatives of all links in the ‘knowledge chain’, which might include non-academic institutions, independent researchers, NGOs, private sector and (semi-) public organizations. The entire knowledge system will benefit greatly from this type of facilitative platform. Access must be as low-threshold as possible. The platform should not be solely reactive but must take a proactive approach in promoting collaboration and exchange.

Once the connections have been established, a better overview of research projects being conducted by the various parties on the islands and elsewhere will develop over time. This can help to prevent further fragmentation and duplication of research, and may well improve the coordination of research which relies on the input of external organizations and the general public. In the current situation, completing questionnaires or taking part in surveys is often seen as burdensome for small communities and institutions.

Another aspect of this function is the provision of advice about potential sources of research funding (in the European Netherlands, the EU, etc.) and support in acquiring such funding. ‘Research support’, a concept familiar to all European Dutch universities, is still very much in its infancy on the Caribbean islands. In the mid to longer term, however, it will be extremely important, if not absolutely essential, in terms of funding both research activities and research facilities. The new CNSI can fulfil the role of facilitator and mediator by providing advice, information and training, and by establishing contacts with research support offices (and similar organizations) in the European Netherlands and elsewhere. Working alongside regional researchers and institutions, the new CNSI can also play a part in identifying research requirements, proactively initiating research projects, and forming the appropriate consortia.

If the envisaged organization is to function optimally, the transformation of the current CNSI as outlined above might usefully be accompanied by a somewhat broader approach. Over the course of years, significant fragmentation has also developed at the organizational and administrative level, whereupon the various parties⁹ can achieve little synergy and the impact of their activities remains limited. The knowledge system of the Caribbean islands deserves a more coherent approach and a shared vision which addresses the opportunities and challenges in all parts of the Kingdom. This aspect is, however, far too broad to be considered within the scope of the current report. Suffice it to say that the form and structure of the new CNSI must allow it to contribute to this cohesive approach.

⁹ Including but not limited to OCW, NWO, other national ministries, ZonMw, RVO, the CASt and BES islands, institutions, knowledge federations and other relevant organizations within the Kingdom.

Knowledge Sharing and Knowledge Utilization. Several interviewees noted that scientific knowledge on (or about) the islands is not readily shared and often fails to reach its potential users, such as other researchers, educational institutions, public sector authorities, the societal midfield or the wider public. Here too, the new CNSI can facilitate and promote change by: (1) organizing seminars, workshops and discussions (online or in the real world) about planned and ongoing research or other knowledge-related topics, (2) helping to involve visiting researchers in the educational programmes of the Caribbean universities, (3) providing advice and mediation in arranging research placements for Caribbean students.

The CNSI can play an important facilitative role in connecting research and education. While the new CNSI will not provide any educational programmes of its own, it can bring people and institutions together in order to incorporate research performed on the islands into the educational programmes of the universities and other institutions. Several interviewees cited this translation of research into education as a key ambition (and challenge).

In addition to sharing knowledge, it is important that new knowledge is actually utilized. This is not an automatic process. There is a growing demand for knowledge that is not merely published in scientific journals but is made available to target groups beyond the scientific realm. In many cases, this calls for specific action to translate knowledge into practical applications (e.g. by NGOs), policy (government) or for commercial usage (private sector companies). The CNSI can facilitate the process by organizing meetings between researchers and relevant stakeholders.

“The islands need more professors who can base what they teach on their own research experience.”

Antonio Carmona Báez

It is also very important that knowledge developed with public funding is made accessible and understandable to the general public. The most effective way of doing so will be for the CNSI to establish long-term collaboration with various local and regional media channels (print, radio, TV, social media), to publicize and explain various aspects of research. With targeted social media activities, it will also be possible for researchers, other knowledge workers and interested members of the public to make a worthwhile contribution. It should go without saying that the new CNSI must have a good website, its own newsletter, a strong social media presence and facilities to produce blogs and vlogs.

Supporting and Conducting Research. Young researchers on the islands express a strong need for temporary working accommodation and meeting places. Many researchers work at more than one location, perhaps dividing their time between the islands and the European Netherlands, and rely on there being basic facilities available at those locations. This is not always the case. While the CNSI cannot solve this problem, it can facilitate and mediate. It might, for example, provide a number of ‘hot desks’ at its offices, equipped with basic infrastructure and access to online resources such as libraries and

databases. It could act as mediator in arranging access to workspaces at partner organizations such as the local universities. The same concept can be applied to meeting rooms, which can be used for incidental lectures and workshops.

“There is a clear need for a mechanism which can translate knowledge into policy more effectively.”

Izzy Gerstenbluth

7.2 Thematic profile

What should be the research focus and scope?

According to the original vision, the CNSI would not limit itself to specific topics or disciplines but would play a facilitative role in all relevant knowledge domains. The current CNSI on Sint Eustatius does however have a clear and narrow focus on marine biology and related matters. The interviewees were unanimous that an expansion of focus is necessary, as only then can the CNSI play any significant role in the knowledge system of the Caribbean islands. In practice, the CNSI must leave the choice of research topics to institutions and researchers in the region; it must facilitate rather than programme relevant research, but must do so across the entire spectrum of scientific disciplines. Compared to the current situation, it is desirable for the new CNSI to expand its activities to include the humanities, social sciences, health sciences and technical sciences.

“On small islands, everything is linked to everything else. The natural sciences are also of economic, cultural and social importance, and vice versa.”

John Marks

The envisaged expansion does not mean that the activities of the CNSI will have no thematic framework – quite the reverse. That framework will be formed by the SDG, SIDS and SAMOA programmes. The results of the online survey and the resultant Caribbean Knowledge Agenda can help to refine the general concepts of the programmes, adapting them to the Caribbean context. The CNSI will not act as leader, manager or director of activities, but as a sparring partner, facilitator and advisor.

The expansion of scope calls for closer collaboration between knowledge institutes with different centres of gravity, between the various islands, between the national ministries, and between all countries within the Kingdom. Fortunately, expanding the scope will offer new opportunities for such collaboration.

7.3 Location

Where should the new CNSI be located?

The current CNSI is located on Sint Eustatius and has no presence on any of the five other islands. Several interviewees confirmed that this is one of the key reasons for its relatively low profile and limited range of action. A physical presence on each of the islands, in one form or another, is essential if the new CNSI is to succeed in acting as a facilitative and connective platform for the entire Caribbean part of the Kingdom.

Sint Eustatius is a suitable home base for marine biology research in the Windward part of the Caribbean and this location fits well with its current focus. Moreover, the location on Sint Eustatius helps to achieve a certain balance between the structures and facilities of the two groups of islands, Leeward and Windward. At the same time, however, many interviewees point out that Sint Eustatius is not readily accessible, something that clearly detracts from its suitability as the main location of a network organization. Several suggested that a structure comprising a main centre, or hub, and a number of decentralized 'anchor points' close to the partner institutions on other islands would be a good solution. In this model, the centre and all anchor points would benefit from their proximity to one or more components of the research structure, such as the universities and knowledge institutes.

It would be preferable for all six anchor points to be physically embedded in a local organization which is active (at least in part) in some aspect of knowledge and science, including application, valorization, education and outreach. This is not to say that the anchor points should be part of those partner organizations, but that each island should have a point of contact for the new CNSI which is located very close to the partner organization concerned, possibly but not necessarily in the same building. First, this will promote local cooperation. Second, it will create a recognizable 'front office' function. It is highly desirable that the anchor points work not only with the partner organization but also with all other local partners.

The three public universities - UoC, UA and USM - are the obvious choice of partner organization on Curaçao, Aruba and Sint Maarten. The other islands do not have a public university whereupon collaboration with other local institutions must be sought. This will not detract from the functioning of the new CNSI but will complement the institute and greatly enhance its potential. This structure allows the wishes, requirements and interests of other, non-university, institutions to be addressed and gives them a more prominent place in the knowledge system.

Further to our discussions with island representatives, we have been able to compile a list of potential partners on the BES islands. During the implementation phase, talks must be held with intended partners on all six islands to explore possible forms of collaboration. With regard to staffing, one option will be to appoint suitable people who divide their time between the partner institution and the new network organization. These 'shared appointments' can be jointly funded pro rata the hours devoted to each organization. The local institutions might be allowed to make their contribution 'in kind', in the form of office accommodation or other facilities. During the interviews, university representatives proposed just such an arrangement.

7.4 Scope

What should be the geographic scope?

The original plan was for the CNSI to serve the entire Caribbean part of the Kingdom. The chosen location and structure meant that this ambition could not be fully achieved. Another option would be to limit the institute's radius of action to the Windward Islands (including those that do not form part of the Kingdom). However, the interviewees expressed a strong desire to revert to the original plan, whereby the CNSI should focus on all six islands of the Kingdom of the Netherlands. This is also in keeping with the more general objective of establishing stronger ties between all islands of the Kingdom, both Windward and Leeward, allowing them to strengthen and support each other's efforts in the field of science and research.

“If you place something on every island, you are strengthening the Kingdom from the inside out and you achieve a more cohesive whole. It is the connections between the components that make the Kingdom strong, like the spokes of a wheel.”

Juan Alfonso Boekhoudt

7.5 Organization and embedding

What form should the new CNSI take in terms of organization and governance?

The current CNSI on Sint Eustatius is formally a division of the Royal Netherlands Institute for Sea Research (NIOZ), and has its own Advisory Board. NIOZ is one of several research institutes administered by NWO. The interviewees made clear that the current governance arrangements are unsatisfactory, due to factors such as the division of tasks and responsibilities between the Advisory Board of the CNSI, the NIOZ and the Executive Board of NWO, the lack of consensus regarding the nature of those tasks, and the marked over-representation of European Dutch institutions on the Advisory Board, which results in little or no sense of ownership in the Caribbean region.

Interviewees were asked to consider alternative governance models, such as an entity with its own legal structure and status (e.g. a foundation or society), the incorporation of the CNSI into one or more existing institutions, such as a university (either in the Caribbean or in the European Netherlands) or perhaps even UNESCO. The option most likely to achieve the vision and objectives of the new CNSI would seem to be a structure under the NWO 'umbrella' but operating as independently as possible and with regional, Caribbean institutes represented to the greatest possible extent. This model is examined in greater detail in paragraph 8.4 below.

8. Future scenario

Based on the principles and building blocks described in the foregoing chapters, Phases II and III of the exploration involved producing various scenarios for the future, which were then presented to the interviewees for comment. The resultant dialogue gives rise to the following impression of the CNSI of the future. It is presented as a single, all-embracing design that can be implemented in three stages between 2022 and 2027 (see Appendix 10.1). The investment requirement is also specified (see Appendix 10.2). We offer two possible financial scenarios for the start-up: a minimum budget with which only some of the ambitions can be achieved, and a ‘sound’ budget which allows somewhat greater scope for development. We also propose a full budget for a situation in which the platform eventually becomes a fully-fledged international SIDS expertise centre. Advice regarding the implementation process is included in paragraph 8.6.

There is some overlap between the contents of Chapters 7 and 8. This is because Chapter 7 describes all possible building blocks, while Chapter 8 describes those which have been selected to form the basis of our recommendations for the structure and design of the new CNSI. Chapter 8 is therefore the crux of this report, while Chapters 1 to 7 provide the necessary background information.

8.1 Principles and core values

All activities of the future CNSI will be concerned with the Caribbean islands of the Kingdom. The new CNSI should be an entity which contributes to the sustainable development of the knowledge system of all six islands. It is therefore essential that the people and institutions of those islands (including the diaspora) feel engaged in the new facility and its work. Without regional ownership, the new CNSI can claim little *raison d’être*.

“The sustainable strengthening of the knowledge infrastructure is certainly needed”

Anna Maria Proveyer

In the first instance, the new CNSI will answer the significant (and growing) demand for advisory, facilitative, connective and coordinating activities. Research itself will not be among its core tasks; this responsibility falls to the institutes and individual researchers who enjoy direct access to the NWO funding opportunities and research budgets now available throughout the Kingdom. The new CNSI must not restrict itself to certain themes or disciplines. Rather, it must be willing to embrace the entire spectrum of scientific activity.

The new CNSI can only achieve this ambition if all islands are directly involved. That is to say that there must be a network structure with a physical presence ('anchor point') on each of the six islands. We see this as the only viable means of ensuring the necessary inclusivity and engagement. Note that we are not calling for six separate locations, each the size of the current CNSI on Sint Eustatius. The requirement is for one administrative centre and five 'anchor points'. The latter can be set up and managed in collaboration with local partners such as the universities. Specific attention must be devoted to strengthening the relationship between the Windward and Leeward islands in terms of scientific research.

The proposed new CNSI will fall under the administrative responsibility of the NWO Caribbean Research Programme Committee (PCCO). This will guarantee quality and independence, while also ensuring close ties with the NWO Caribbean Research Programme itself. Regional ownership can be strengthened by having a steering group whose members are primarily from the Caribbean islands of the Kingdom, or who have very close ties with the region.

We feel that these principles and core values should be expressed by adopting a new name. Our preference is 'Dutch Caribbean Research Platform' (DUCARP). The words 'Dutch Caribbean' refer to all six islands and therefore indicate the geographic coverage of the institute. We have chosen the word 'platform' because it reflects the mission of providing support and encouraging interaction. Alternatives such as 'network', 'facility' and 'institute' have connotations which detract from the essence of our advice, namely that DUCARP does have a physical presence on all islands and does offer various forms of support to research activities, but does not conduct any research of its own, at least in the early stages. Throughout the remainder of this report we therefore refer to the proposed new entity as DUCARP.

It is possible that DUCARP will start to conduct its own research in the final phase of development, as it becomes a fully-fledged SIDS knowledge and expertise centre. Such a centre will call for extra investment (see Appendix 10.2) and can form an attractive growth scenario assuming that earlier development is satisfactory. At present, the envisaged knowledge centre is not feasible, largely due to the high degree of fragmentation and the lack of cohesion and collaboration. The recently funded large research programmes may provide input for the proposed SIDS knowledge centre. Such a centre would also be a valuable adjunct to the Caribbean Knowledge Agenda currently in development.

8.2 Tasks and activities

DUCARP is to be a facilitative and connective platform, primarily 'of and for' the knowledge community of the six Caribbean islands of the Kingdom, although it will also seek to promote cohesion and collaboration throughout the entire Kingdom. The following paragraphs list the most important activities which DUCARP should instigate as soon as possible. Depending on the level of ambition, there are other tasks which can be added to the portfolio at a later date (see paragraph 8.5 and Appendix 10.1).

8.2.1 Promoting collaboration

The most important task of DUCARP will be to encourage and support interaction, collaboration and exchange between various actors and the various parts of the Kingdom. This will greatly enhance the quality of research while also increasing the quantity. The primary aim is to foster closer collaboration between:

- a. the research institutions (especially the universities) and researchers of the Caribbean islands of the Kingdom;
- b. research institutions and researchers throughout the Kingdom, with a focus on collaboration between the Caribbean islands and the European Netherlands;
- c. academic and non-academic organizations and groups engaged in developing knowledge of particular relevance to the Caribbean islands.

This role is essential to repair the significant fragmentation that currently typifies the knowledge system of the Caribbean islands, which is standing in the way of the further development of high-quality knowledge communities. At the same time, greater collaboration is likely to create synergy and increase the quality of the knowledge system itself. Here, 'collaboration' refers to joint research projects, the ongoing exchange of ideas, data and expertise, and mobility of staff and students between institutions. DUCARP can be a meeting place for knowledge workers and a brokerage which introduces institutions and individuals based on their fields of expertise and interest. DUCARP must also play a proactive role in creating new partnerships and consortia.

“You can't make the islands any bigger than they are, but you can minimize the disadvantages of being small by entering into long-term partnerships, promoting the exchange of people and experience, and thus increasing the quality and diversity of education and research”

Gert Oostindie

8.2.2 Linking research and education

The main task of DUCARP will be to facilitate research. However, the interviews confirm that the islands have a strong need for better, more structured coordination between research and local education at all levels. While DUCARP cannot provide education itself, it can play a part in inviting researchers to talk about their work to primary, secondary and tertiary students. DUCARP can also help to interconnect research and education more closely, not only in the Caribbean region but throughout the Kingdom. This type of activity will require working closely alongside partners and programmes both within and beyond the Kingdom of the Netherlands.¹⁰

“Close ties and good interaction between education and research are important to both”

Eugene Holiday

¹⁰ Within the Kingdom: the *Kingdom Mobility Plan* produced by OCW and the Ministry of the Exterior and Kingdom Relations (BZK), and the educational work of the NWO Programme Chairs. At the international level: ERASMUS+.

8.2.3 Advice and research support

Since 2019, researchers at all public universities in the Kingdom have been eligible to apply for NWO research grants (and some ZonMw grants). Prior to this, there were few opportunities to acquire funding under the national programmes. There are also European and national funds on which the researchers and institutes can call. However, the complexity of the research funding system and the limited capacity of small-scale institutions makes it difficult to take advantage of the opportunities that exist. All universities and academic centres in the European Netherlands now have a 'Research Support Office' which brings funding opportunities to the attention of their researchers and undertakes the administrative work involved in applying for grants. Research support is still very much in its infancy on the Caribbean islands. DUCARP should play a significant part in providing advice about national and international funding opportunities. Over time, it will also support the gradual accumulation of knowledge about research support. This calls for close contact with the regional research institutes, the various EU information offices on the islands, RSOs in the Netherlands and relevant knowledge centres.

8.3 Structure and scope

DUCARP must be a network organization and platform 'of and for' the knowledge community of the six islands. The platform will serve all Caribbean islands of the Kingdom, regardless of constitutional status. Within the knowledge community there is a significant need for greater cohesion and better connections between the six islands, and between the islands and the European Netherlands. As part of NWO, DUCARP will reinforce connections with the Netherlands by strengthening the national network and the institutional relationships which NWO already has. As a network with a clear focus on knowledge, DUCARP will strengthen the Kingdom 'from the inside out'. As our interviewees confirmed, it will be difficult or impossible to achieve this ambition unless there is a physical presence on each of the six islands. The most appropriate structure for DUCARP is therefore a network of six physical locations, one of which acts as a hub and administrative centre.

“You need ‘boots on the ground’. People have to be able to approach you – real contact is important to establish local roots.”

Glenn Thodé

Given the academic focus of the network, the logical approach will be to establish the 'anchor points' within or close to universities where possible. This will ensure adequate embedding, increase the critical mass and prevent isolation. On those islands without a public university, the anchor points can be established in association with one or more local, knowledge-related organizations. The location of the current CNSI, Sint Eustatius, seems unsuitable as the central hub of the future network in view of its geographic isolation. We therefore propose that the centre should be established on Sint Maarten, which is more readily accessible and has its own university. In addition, this location will foster greater engagement on the part of the smaller Windward Islands (as opposed to the larger Leeward Islands).

The current CNSI can serve as the Sint Eustatius anchor point of the future network. The universities of Curaçao and Aruba are the most logical choice to host the anchor points on their respective islands. We see several options on the islands of Saba and Bonaire: a final decision can be made during the implementation phase. The anchor point on Aruba should probably be stronger than the others in order to facilitate coordination between the Windward and Leeward island groups.

8.4 Governance and embedding

DUCARP is to be a facilitative and connective network. In terms of organization and governance, it should ideally be linked as closely as possible to the NWO Caribbean Research Programme, established by the Ministry of OCW, under which the research activities of the new Programme Chairs will be funded. This embedding will create synergy and cross-pollination between DUCARP and the initiatives launched further to the grant programme. In this construction, the Caribbean Research Programme Committee (PCCO) would take administrative responsibility for both DUCARP and the NWO grant programme as a whole. It is likely that the PCCO will report directly to the NWO Executive Board, the highest governance body within the organization. The Caribbean Knowledge Agenda, currently in development, will also be overseen by the PCCO.

“Ownership is very important. The priorities have to be established by the islands themselves. However, ownership must not be organizational: the CNSI must remain neutral and independent.”

Glenn Thodé

Regional ownership can only be created if DUCARP has its own steering group in which relevant groups and institutions from the Caribbean islands themselves (including the diaspora) are well represented. It is essential that their voice is heard. Clear procedures must be put in place to ensure transparency and mutual confidence. The tasks and responsibilities of this steering group must be defined during the implementation phase (see paragraph 8.6 below) and recorded by means of standing orders. The formal relationships between the director of DUCARP, the steering group, the PCCO and the Executive Board must also be established. The tasks of the steering group, which will convene at least four times a year, are likely to include the approval of the annual work programme, advising on the annual budget, signing off the annual report, and providing general support in all aspects of the work programme. The steering group will not be authorized to allocate grants or other funding. The PCCO can assume the role of a supervisory board, while the standing orders for governance will determine the specific tasks and responsibilities of the director and steering group.

DUCARP will have a broad range of tasks in keeping with its network structure. It is therefore preferable for its director to be someone who has direct research experience, is familiar with research organizations, and has extensive networking and management experience. He or she should know



Dutch Caribbean Research Platform DUCARP

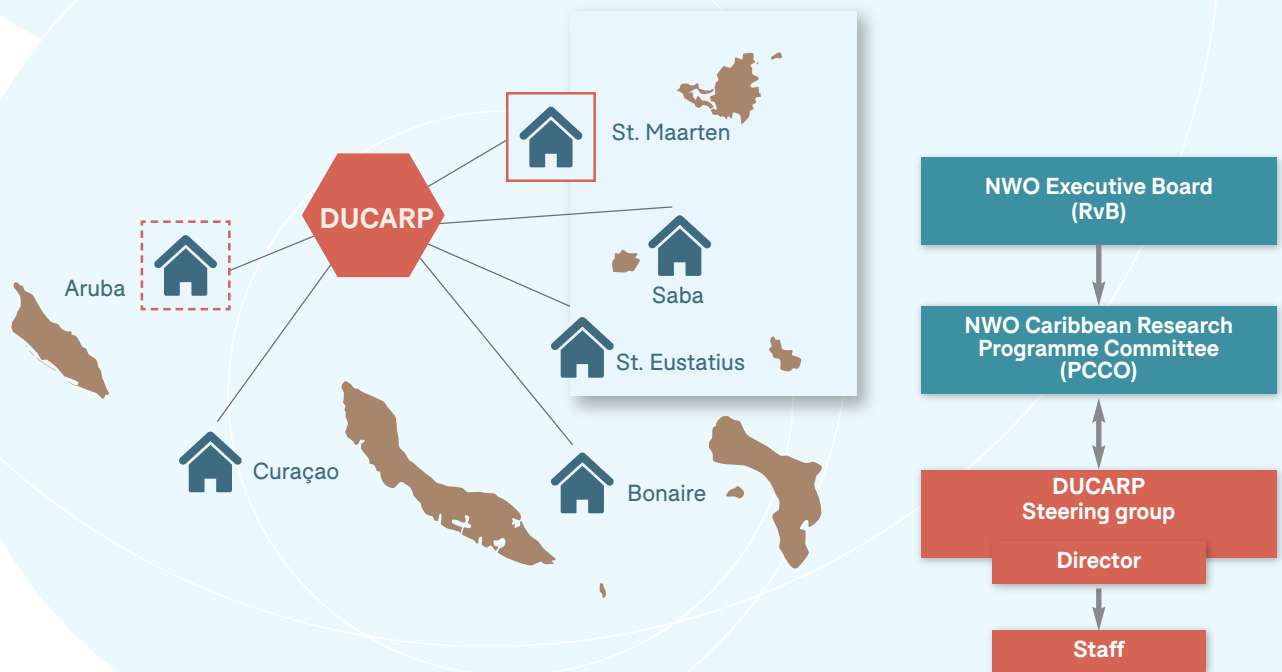


Figure 1: Outline of the structure and governance of DUCARP

the knowledge system of the islands and the rest of the Kingdom, and be willing to work proactively to establish a strong position for DUCARP within the regional knowledge landscape. Ideally, this director-coordinator should have some direct or indirect experience of research in all branches of science, from the natural sciences to social sciences and humanities.¹¹ He or she will be able to call on the support of experts in relevant fields, some of whom will be drawn from organizations such as NWO, the universities and other research institutes on a temporary or longer-term basis. As a facilitative network, DUCARP must create continuity. At the same time, however, it must remain adaptable enough to respond to the changing needs and possibilities of the knowledge system.

¹¹ The budget (Appendix 10.2) therefore specifies an STS (Science, Technology and Society studies) profile.

8.5 Phased expansion

DUCARP will have a modular structure which makes it possible to add (or remove) elements, functions and activities over the course of time. Every two or three years, the portfolio should be reviewed to determine what changes are appropriate or necessary. It is important to have a reasonably high level of ambition from the outset. An overview of proposed tasks and activities, including those which might usefully be added in subsequent phases (after two and four years) is given in Appendix 10.1.

“There is a natural connection between the Caribbean islands of the Kingdom and the other islands of the region. This can eventually lead to the formation of regional networks in both education and research.”

Eugene Holiday

If the objectives set out in this report are to be achieved, it is important that DUCARP has a physical presence on all islands from the start, and that the new structure can begin work on the majority of tasks listed in Appendix 10.1 immediately. In the first instance, the most crucial tasks are to establish active, and where possible long-term, connections between researchers and institutes within the Caribbean part of the Kingdom and the European Netherlands, to facilitate knowledge sharing and knowledge utilization, and to provide indirect support to research activities. Following the initial start-up period of two years, more complex tasks such as facilitating collaboration in the wider Caribbean region and worldwide, promoting stakeholder engagement in research, developing a database of regional research and researchers, and advising on research funding can be added to the portfolio. At a later date, and following an evaluation of DUCARP, it may be appropriate to consider transforming the network into a regional knowledge centre for SIDS-related issues (see Appendix 10.2). This would represent a permanent strengthening of the knowledge system in the Caribbean part of the Kingdom. Moreover, a SIDS knowledge centre would play a useful role, perhaps even that of role model, in the international context.

8.6 Implementation

The transition from the current CNSI to DUCARP must be undertaken with due care and attention. This section offers suggestions for the implementation of the proposals outlined above.

In our view, the transition can best be undertaken by a temporary appointee (or team) charged with planning and implementing the necessary changes, doing so by means of a phased approach and in close consultation with all stakeholders. The PCCO will hold overall responsibility for the transition, while the NWO-I office will provide administrative support. The Ministry of OCW can facilitate the transition at the governmental and political level.

The implementation process can be divided into three main phases. The initial phase involves collecting the information and data required for the transition, whereupon an operational plan can be produced, to include the timeline and

further financial and organizational details. The second phase will primarily entail making agreements with the proposed partners of the network organization and setting up workspaces. This phase will also involve recruiting suitable staff, including the director-coordinator and members of the steering group. In the third and final phase, the new organization actually takes shape and preparations for its official launch will be made, to include the production of transparent working procedures and the formal appointment of the steering group members. Phase 3 will culminate in the opening of DUCARP.

The current funding period of the CNSI runs until year-end 2022. The transition must be complete before then so that the new organization can start work no later than the start of 2023. It would be possible to implement some components and tasks of the new organization before the end of the current funding period.

8.7 Financial considerations

The current CNSI receives funding of €500k per annum from the Ministry of OCW. At its inception in 2013, the expectation was that the CNSI would become self-supporting, generating its own direct income and attracting local contributions. This expectation has not been met. Like the current CNSI, the proposed successor organization can only be realized with the help of structural funding. Given the vision and ambition of DUCARP, which is to be a facilitative platform intended to strengthen the knowledge system of the region, it seems unreasonable to expect it to achieve full financial independence.

This report advises transforming the current CNSI to become a network organization with a physical presence on each of the six islands of the Caribbean part of the Kingdom. This is financially viable only if the partner organizations are able to make their respective contributions 'in kind' (in the form of office space and facilities) and if the current CNSI on Sint Eustatius is scaled down considerably in both physical size and the scope of its activities. During the interview round, various organizations – most notably the universities – stated a willingness to provide 'in kind' facilities to help establish the anchor points. These locations must also be staffed, the costs of which fall to the new organization although one option would be 'shared appointments' whereby the incumbents work part-time for DUCARP and part-time for the partner organization with staffing costs split pro rata.

As stated above, the current CNSI has an annual budget of €500k. The authors do not consider this amount adequate to support the proposed new network organization. It would just be enough to fund part-time appointments on the six islands and some other basic costs (see Appendix 10.2). It would not cover the additional staff and resources needed to undertake specific activities intended to strengthen the knowledge system of the Caribbean region, such as organizing workshops to help researchers apply for funding, creating connections between research and education, or furthering the SIDS agenda.

Appendix 10.2 therefore includes two scenarios for the initial starting budget: 'Minimum' and 'Sound'. The latter, which totals €1.5 million per annum, is sufficient to support the creation of a sound platform organization with the staff and facilities needed to undertake all activities required to ensure the sustainable strengthening of the knowledge system of the Caribbean part of the Kingdom. A third scenario, with a budget of €2.25 million per annum, is included with a view to DUCARP's gradual expansion to become an international SIDS expertise centre. All scenarios are based on estimates rather than exact calculations of the likely investment requirement.

9. Recommendations

The following recommendations are, in the first instance, addressed to the organizations responsible for the current CNSI. However, they are also directed towards all parties who play some part in the further development and effective functioning of the knowledge system of the Caribbean Netherlands.

Besides the Netherlands Ministry of Education, Culture and Science (OCW) and the Dutch Research Council, those parties include the governments of the islands, the local knowledge institutes of the region itself, knowledge institutes in the European Netherlands, and the scientific community of the entire Kingdom of the Netherlands. The sustainable strengthening of the knowledge system of the Caribbean part of the Kingdom is in everyone's best interests, as is closer collaboration throughout the Kingdom. These objectives can only be met by working together.

- 1. Ensure continuity.** Maintain investments in a structure which will promote and facilitate the sustainable development of the knowledge system in the Caribbean part of the Kingdom. Such a structure is an essential precondition to the long-term development of the islands' knowledge system. It will have significant added value in combination with the NWO Caribbean Research Programme, and as a meeting place and hub 'of and for' science on the six Caribbean islands of Kingdom.
- 2. Build a broader network.** Allow the existing CNSI to undergo a transition to become DUCARP, a broad network in terms of both scientific disciplines and geographic coverage. It will have a multidisciplinary mission and a physical presence on each of the six islands. Connect the new organization as closely as possible with existing structures and initiatives on the islands and throughout the Kingdom.
- 3. 'Of and for' the islands.** Establish local ownership and responsibility for activities as close as possible to the researchers, institutions and communities of the islands themselves. Appoint a steering group made up primarily of people from the islands (including the diaspora). Ensure high quality and transparent processes; guarantee impartiality and independence from political agendas.
- 4. Create a connective and facilitative platform.** The emphasis should be on supporting and interconnecting researchers, institutions, knowledge domains and various forms of scientific practice on the six islands, thus strengthening both the quality and quantity of scientific research. Make the new organization the primary platform for collaboration and exchange in both fundamental and

applied branches of science, to include knowledge utilization, outreach and education, not only between the islands but throughout the entire Kingdom and beyond.

5. Work towards becoming a SIDS knowledge centre. As a practical blueprint for the new organization, use a widely supported Caribbean Knowledge Agenda which has been produced further to open dialogue and an earlier survey. Assuming a positive evaluation, extra investment should be made to develop the platform into a fully-fledged regional expertise centre for SIDS-related issues. This centre will have a transparent position within the wider region, collecting knowledge and attracting investment for relevant research.

6. Here to stay. Do not regard the new organization as a temporary structure but assume that it will be a permanent component of the knowledge system. Although its primary focus will be the six Caribbean islands, it should also be of value to researchers and institutions throughout the entire Kingdom. Evaluate all aspects on a regular basis and ensure that the activities of the new organization continue to be in line with the requirements of the knowledge system of the Caribbean islands of the Kingdom and elsewhere.

10. Appendices

- 10.1 Catalogue of building blocks
- 10.2 Financial scenarios (3)
- 10.3 List of interviewees
- 10.4 Report of workshop for young academics and professionals
- 10.5 The rapporteurs' remit
- 10.6 Glossary of abbreviations



Appendix 10.1 - Catalogue of building blocks

Further to the talks with various partners, DUCARP was able to compile the following 'catalogue of building blocks'. A concise description of each is given in Table 10.1.1, below. The descriptions in Chapter 7 are in more general terms. The building blocks form an overview of all the options considered. However, not all form part of the recommended model.

Table 10.1.1 - Building blocks for the future CNSI

The colour of the text indicates whether the building block should be realized from 2023 (■ black), from 2025 (■ red), from 2027 (■ blue), or is not to be used at all (■ gray).

1. **Activities - What should the CNSI of the future do?**

A Strengthening the knowledge infrastructure in the Caribbean region	
1A1	Facilitation of collaboration between the universities in the Caribbean and throughout the Kingdom
1A2	Contact point, pathfinder and partner to European-Dutch universities wishing to conduct research in the Caribbean region
1A3	Contact point, pathfinder and partner to researchers in the Caribbean region who wish to collaborate with European-Dutch universities
1A4	Connecting role ('bridge') between the research activities of institutions in the Caribbean region and those in the European Netherlands
1A5	Support in preparing research proposals for submission to funding authorities such as NWO, ZonMw, RVO, EU, the UN and OECD; establish contact and facilitate exchange with research support units in NL and elsewhere. (This can be seamlessly incorporated into NWO's 'flanking policy' which centres on these functions)
1A6	Strengthening connection between research and education
1A7	Platform for collaboration and exchange between the six islands of the Kingdom, and with other non-Dutch Caribbean islands, with regard to research and related matters
1A8	Encourage and support international collaboration with partners outside the Caribbean region and the European Netherlands
B Facilitation of knowledge-sharing (between researchers)	
1B1	Organizing seminars
1B2	Mediation to allow visiting researchers to contribute to education at Caribbean universities
1B3	Mediation to recruit Caribbean students to take part in Caribbean research projects. This will help to strengthen research while also preparing students to conduct their own research in future.
C Facilitation of knowledge utilization	
1C1	Newsletter, website, blog and vlog
1C2	Support to those wishing to publish in local media or international scientific journals
1C3	Organization of specific, relevant stakeholder meetings with and for researchers
1C4	Providing assistance in translating research into policy

D	Support of research
1D1	Providing or arranging accommodation for visiting researchers
1D2	Providing basic research infrastructure (internet, seminar rooms, access to international databases)
1D3	Developing and maintaining database alongside representatives of all research-focused groups, institutions and NGOs working in or for the Caribbean region
E	Advice on research funding
1E1	Advising the PCCO and/or other administrative bodies within NWO
1E2	Advising other institutions which initiate research, such as the Dutch ministries
F	Own research
1F1	Research in humanities and social sciences
1F2	Research in natural sciences

2. Thematic profile - What should be the scientific focus/scope?

2.1	Only natural sciences, to include marine ecology
2.2	Only social sciences and humanities
2.3	Interdisciplinary: all branches of science
2.4	Aligned with UN-SDGs research programme
2.5	Aligned with UN-SIDS research programme
2.6	Based on Caribbean Knowledge Agenda (under development)

3. Geographic scope - What should be the geographic scope?

3.1	Windward Islands, including those which do not form part of the Kingdom
3.2	Leeward Islands
3.3	Caribbean Netherlands, i.e. all six islands

4. Location - Where should the CNSI of the future be based?

4.1	Solely on Sint Eustatius
4.2	Solely on another island
4.3	On all Windward Islands, with a main base on one island and 'anchor points' on the other two
4.4	On all islands, with a main base on one island and 'anchor points' on the other five

5. Organization/embedding - What form should the CNSI of the future take in terms of organization and governance?

5.1	Under NWO, with its own steering group
5.2	Part of another existing organization (UNESCO, university system, etc.)
5.3	Independent organization with a defined legal structure and status (e.g. foundation, association)

The building blocks listed above can be used to form various scenarios. When selecting and combining the building blocks, the principles stated in Chapter 6 must be observed. Table 10.1.2 (below) shows the building blocks recommended by the authors and described in Chapter 8. Building blocks which were indeed considered but not selected are listed separately.

Two aspects of this table are noteworthy. The first is its modular structure: the column headed '2023' includes the building blocks which will allow the new CNSI to begin operations in 2023, while the columns headed '2025' and '2027' show the additional building blocks that can be 'bolted on' later to support its ongoing growth. The second noteworthy point is that this modular expansion consists almost exclusively of 'activities'. In the four other dimensions, nearly all ambitions can and should be achieved in 2022.

Table 10.1.2 - Combination of building blocks, arranged according to the five dimensions, which must be in place at the launch of DUCARP in 2023 and at each subsequent phase.

Dimensions	Building blocks			
	2023	2025	SIDS expertise centre 2027	Not selected building blocks
Activities	1A1, 1A2, 1A3, 1A4, 1A5, 1A6	1A7, 1A8		
	1B1, 1B2			1B3
	1C1	1C2, 1C3	1C4	
	1D1, 1D2	1D3		
	1E1	1E2		
			1F1, 1F2	
Thematic profile	2.1, 2.2, 2.3, 2.4, 2.5	2.6		
Geographic scope	3.3			3.1, 3.2
Location	4.4			4.1, 4.2, 4.3
Organization/ embedding	5.1			5.2, 5.3

Appendix 10.2 - Financial scenarios

Abbreviations

STS: Science, Technology & Society studies; SGW: social sciences and humanities.

ENW: exact and natural sciences (including medical and technical).

Activities, budget estimates	Description	Scenario 0	Scenario 1	Scenario 2	Scenario 3
		inadequate (current budget)	minimum	sound	SIDS expertise centrum
Personnel					
Academic staff* Central (Sint Maarten)					
Prepare workshops and masterclasses about research proposals; support in producing research proposals; identify relevant calls for proposals (NWO and EU); assist in forming consortia; legal, financial and ethical advice on setting up and conducting research projects; organization of workshops with experts from the European Netherlands or other countries; expertise for SIDS agenda and research; help in organizing meetings between researchers and stakeholders; help in establishing contacts between researchers and the educational field; help in translating research results into policy.	Director (STS profile)	150	150	150	150
	Staff member (SGW profile)		150	150	150
	Staff member (ENW profile)			150	150
	Staff member (SIDS profile)				150
Academic staff Anchor points (Aruba, Bonaire, Curaçao, Saba, Sint Eustatius)					
Facilitate contacts within and between islands, between researchers and with potential interested parties; help in forming consortia	Staff (0.5 FTE per anchor point; diverse profiles)	250	250	250	250
Organization of workshops with experts from the European Netherlands or other countries	2 nd staff member (0.4 FTE per anchor point; diverse profiles)	0	200	200	200
Help in organizing meetings between researchers and their stakeholders	3 rd staff member (0.3 FTE per anchor point; diverse profiles)	0	0	150	150
Strengthening of SIDS expertise	Specific appointments with SIDS expertise	0	0	0	400
Non-academic (support/administrative) staff		30	30	60	100
Non-academic (support/administrative) staff anchor points		0	0	100	200
Infrastructure					
Accommodation		pm	pm	pm	pm
Communications equipment (internet, telephone)		pm	pm	pm	pm
Computers, laptops, notebooks, printer, server		10	20	30	30
Seminar room		pm	pm	5	5
Subscriptions (libraries, databases, etc.)		0	10	10	10
Guest accommodation					
Central		0	10	20	40
Anchor points		0	25	35	35
Travel expenses					
Between islands		20	30	50	50
Between Caribbean and Europe		10	20	30	70
Steering group					
Remuneration		30	45	45	45
Travel expenses		0	20	20	20
PT and external communications					
Salary (one staff member)		0	30	30	30
Translation (Dutch<->English<->Papiamentu)		0	5	10	10
Design/pre-press		0	5	5	5
Total		500	1000	1500	2250

All amounts x €1000 per annum.

* Academic personnel will preferably be people with direct experience in performing research, possibly as a PhD student. Although their work as DUCARP staff members will not involve performing research, experience is considered desirable to foster proactive support for those who do, and to maintain credibility in any advisory role.

Appendix 10.3 - List of interviewees

1	Mr	Richenel Ansano	Board, CaribResearch
2	Ms	Ilja Arts	Chair, Caribbean Research Programme Committee (PCCO)
3	Mr	Jeroen Arts	Responsible for Caribbean Research at Ministry OCW
4	Mr	Tadzio Bervoets	Director, DCNA
5	Mr	Juan Alfonso Boekhoudt	Governor of Aruba
6	Mr	Erik Boman	Director, STENAPA, Sint Eustatius
7	Mr	Henk Brinkhuis	Director, NIOZ; Advisory Board CNSI
8	Mr	Antonio Carmona Báez	President, University of Sint Maarten (USM)
9	Mr	Wim van den Doel	Former member of NWO Executive Board, PCCO
10	Mr	Ashley Duits	CBHRI; Director, Curaçao Blood Bank
11	Ms	Liesbeth Echteld	Director, University of Curaçao Research Institute (UCRI)
12	Ms	Lydia Emerencia	Chair, CaribResearch
13	Ms	Kathleen Ferrier	Chair, National UNESCO Committee
14	Ms	Alida Francis	Acting government commissioner, Sint Eustatius
15	Mr	Izzy Gerstenbluth	CBHRI; epidemiologist
16	Mr	Francio Guadeloupe	Programme Chair; UvA, KITLV
17	Ms	Yvette Halley	Head of Examinations Board, Sint Maarten
18	Ms	Odile Heynders	Caribbean Research Programme Committee (PCCO)
19	Ms	Corinne Hofman	Chair, CNSI Advisory Board, UL, KITLV
20	Mr	Eugene Holiday	Governor of Sint Maarten
21	Mr	Aldrik in 't Hout	Head of Caribbean Policy Department, Ministry OCW
22	Mr	Edwin van Huis	CNSI Advisory Board; director, Naturalis Museum
23	Mr	Jonathan johnson	Island Governor, Saba
24	Ms	Mieke Kalter	Cabinet Director for the Governor of Sint Maarten
25	Mr	Francis de Lanoy	Rector, University of Curaçao (UoC)
26	Ms	Suzanne Larmonie	Policy Director, Ministry OWCS, Curaçao
27	Mr	Han Lindeboom	CNSI Advisory Board; Wageningen University & Research
28	Ms	Noris de Lis-Santos	Board, CaribResearch
29	Mr	Niek Lopes Cardozo	Former member NWO Executive Board and former chair of the PCCO
30	Mr	John Marks	Caribbean Research Programme Committee (PCCO)
31	Mr	Gert Oostindie	CNSI Advisory Board; Director, KITLV
32	Ms	Joyce Pereira	Board, CaribResearch
33	Mr	Bob Pinedo	Founder, Fundashon Prevenshon Curaçao
34	Ms	Annemarie Proveyer	Director of Education, Ministry OWD, Aruba
35	Mr	Marnix van Rij	Former Government Commissioner of Sint Eustatius
36	Mr	Edison Rijna	Island Governor of Bonaire
37	Mr	Johan Stapel	Director, CNSI
38	Mr	Glenn Thodé	Rector, University of Aruba (UA)
39	Mr	Ron van der Veer	Advisor to Council of State; DCNA board
40	Mr	Mark Vermeij	Programme Chair; director, CARMABI; UvA
41	Ms	Nicole Wever	Policy officer, Ministry OWCS, Curaçao

Next Generation workshop, 30 participants: see Appendix 10.4

Appendix 10.4 - Report of workshop for young academics and professionals

Strengthening the research environment in the Dutch Caribbean

Inspirational online session for next generation researchers & young professionals

Thursday 8 October

12.00-13.30 hrs Caribbean time | 18.00-19.30 hrs European time

Agenda

- 11:45 | 17:45 Getting online...
- 12:00 | 18:00 Opening by Jorien Wuite
- 12:05 | 18:05 Introduction by Wiebe Bijker
- 12:25 | 18:25 Parallel break-out sessions A, B, C
- 12:55 | 18:55 Plenary discussion, moderated by Tanja Fraai
- 13:25 | 19:25 Closing remarks

Conveners & format

The session will be led by our advisors Jorien Wuite and Wiebe Bijker, in collaboration with Tanja Fraai (WeConnect) and myself (Josef F. Stuefer). There will be a plenary part and 3 smaller discussion sessions.

Main Questions

1. What is needed to improve the structure and functioning of the research system on the six Caribbean islands of the Kingdom?
Can you illustrate this with your own experience incl. specific problems you may have encountered when doing research or applying research knowledge?
2. If you could design a new NWO-facility to support research on the Caribbean islands, which activities would that new entity ideally perform and which facilities and services would it offer?
3. Ideally, which role should scientific and scholarly research play for the development of the Dutch Caribbean islands and their societies?

Participants

Amber van Veghel, Aronnette Martis, Charissa Granger, Calvin Brooks, Cherelle Maduro, Daury Jansen, Edrieëna Brandao, Gregory Richardson, Jasmira Wiersma, Julian Isenia, Le Var Richardson, Luigi Maduro, Matthew Halley, Melissa van der Elst-Koeiman, Rocca Chin-On, Soraya Verstraeten, Thaïs Franken, Thaïs Tong, Tibisay Sankatsing Nava, Tishelle Daniel, Tyrillshall Damiana, Vaitiare Mulderij-Jansen, Vashti Tromp, Yannick Frans.

Conveners

Jorien Wuite, Wiebe Bijker, Tanja Fraai.

NWO staff

Ajita Ramautar, Arnold Lubbers, Josef Stuefer, Linda Jongbloed.

Summary of breakout sessions

Breakout Session A (moderator: Edriënna Brandao)

Connect – connect – connect ...

The participants stressed the importance of being better connected: with each other, with peers and mentors, and also with information and data. Islands are isolated places by nature. For researchers this isolation is further exacerbated by a lack of means to get to know each other, to interact and to collaborate. Community building and connecting people in a meaningful way, be it in physical or virtual space, was identified as one of the biggest needs for improving and stimulating the scientific environment in the Dutch Caribbean.

Information, data, experience, know-how tend to be very scattered, too. Various participants stressed the importance of having (better) access to scientific data bases as well as other sources of information. They wished for a 'research portal' facilitating data access and information sharing, including access to other people, groups and institutions working on subjects of interest to the islands and their societies. Linking up people would also make work more efficient, especially if they can share infrastructure (e.g. lab facilities), existing knowledge and know-how. The very small scale and the scattered nature of the research system, as well as generally limited resources make better collaboration within and across islands a necessity, participants found. The 'academic isolation' felt by many researchers could (and should) also be decreased by more engagement beyond and across disciplinary 'bubbles'. Current and future challenges call for broad inter- and trans-disciplinary approaches, especially on small islands where everything tends to be tightly interconnected.

Community engagement

The participants of this session spoke out for true community engagement, for generating public support for purposeful research and for creating ownership among local communities, organizations and stakeholders. This, however, requires a change in attitude compared to previous initiatives. To illustrate the point, one participant recalled the presence of TNO on Aruba. They were there for a long time but they did not engage with the community; nobody knew what they were doing and why. This is a main obstacle for true local embedding. Similar observations and arguments were put forward for the current CNSI on St. Eustatius. Its visibility and impact were considered extremely low. Most participants had never heard of the CNSI before getting invited to this meeting and those who happened to visit Statia and/or the CNSI got the impression that "*it's in the Caribbean, but not of the Caribbean*".

Link with universities

Various speakers emphasized the fact that Caribbean universities focus almost exclusively on teaching. The main reason for this is probably a lack of funding for doing research. As a consequence there are quite a few people and initiatives outside the universities which engage in research. A very tight integration of the future CNSI-structure with universities would not be beneficial for this part of the community as collaboration with universities can sometimes be rather difficult. The CNSI should therefore remain largely

independent. To promote research at universities, NWO/CNSI should provide financial assistance for staff members for devoting part of their time to research activities instead of teaching. The heavy focus on teaching, however, can also provide the opportunity for linking up research with education as directly as possible.

Breakout Session B (moderator: Melissa Koeiman)

Community building

Participants started off the discussion by sharing their personal experiences while doing research on and research about the Caribbean Islands. The bottom line of the discussion was an unpleasant, general feeling of being 'left alone' with doing research and with learning how the system works. In other words, the participants identified an urgent need for more connections, more interactions between (young) researchers and other academics, including people who have not yet started doing research and people who have finished their standard academic career paths. To improve this situation, NWO/CNSI could facilitate the creation of an interactive research community, so that people can more easily find and meet each other, share thoughts and information, and inspire one another. Even among NWO programmes and projects there sometimes is little interaction between researchers and staff, while this would certainly be very welcome and beneficial. The new CNSI could play a central role in facilitating the creation of a broader research community across different scientific fields, institutions, islands and countries.

Concrete ideas

The participants formulated a number of wishes and ideas which may considerably contribute to further developing and sustainably strengthening the research system in the Dutch Caribbean, such as:

- a. Provide or organize means which enable scientists to get together, present and share ideas and data, brainstorm, etc.
- b. Provide or facilitate the access to relevant data bases;
- c. Organize regular events where scientists come together, present their results and discuss issues of general relevance to the research community;
- d. Facilitate connections and interactions with Caribbean universities outside the Kingdom of the Netherlands;
- e. Provide or organize guidance and mentorship for newcomers to the research community;
- f. Provide or organize courses on different topics, such as introductions to:
 - a. the research funding system
 - b. grant writing
 - c. academic skills
- g. Provide guidance and support for (young) researchers who often switch between the Netherlands and the Caribbean Islands.

Lack of facilities

Several participants stressed the lack of basic facilities and infrastructure as a significant barrier for doing research on the Caribbean Islands. Institutions on the islands do not always provide regular services such as appropriate work spaces, basic lab facilities and access to basic services. NWO does not refund such expenses as in the Netherlands they are directly covered by

institutional funding (in Dutch: 'eerste geldstroom') from the ministry to research institutions. This funding line, however, is completely absent in the Caribbean. The participants agreed that grants should therefore include at least some budget for covering overhead costs, otherwise money spent on research may not reach its full potential.

Breakout Session C (moderator: Vashti Tromp)

Strengthening of ties

The presentation of the exploration on the future of the CNSI already contained many points of importance, such as the focus on strengthening the collaboration between the three existing universities in the Dutch Caribbean region.

Based on experience in Statia, the CNSI currently functions in a problematic way. The institute is not present on the other islands of the Dutch Caribbean region, but it is also not embedded in the local community of Statia. There are existing barriers for the community to enter the CNSI, which leads to the suggestion that a future institute should be embedded and positioned within the local populations. This, in turn, strengthens the local Caribbean communities' ownership. In doing so, not only local researchers, but the communities alike are empowered, which would be significant impact of a future institute. This will also ensure that research addresses local challenges and needs primarily. Of great importance to ensure such embedding is largely to be found in the profile of the person(s) running a future CNSI.

The criteria for embedding however need to be made clear: even though engagement with the local community is of key importance, the question rises what a realistic benchmark is to achieve this. Just like in The Netherlands, only a small part of any community has affinity with scholarly and scientific research.

The future CNSI should have the strengthening of ties as one of the central functions, which can be achieved in different ways. Conferences for Caribbean researches can be organized (both local and diasporan), the sharing of information can be facilitated, collaborative research with local communities can be further developed. For this to succeed, it is imperative the CNSI develops a new vision on what research entails: who is seen as researchers and by whom? What is considered to be research, what is considered to be useful knowledge? Who produces or contributes to knowledge, whose needs are foregrounded, who is acknowledged? These questions need to be answered from local Caribbean perspectives.

Sustainable support for young scholars and scientists

The future CNSI can be financed as an institute of/under NWO, but this begs the question what role the institute intends to take: should it be leading or supportive? Such a decision should be made, again, rooted in local Caribbean needs and reality.

Another central role of the future CNSI is facilitating access to research funding for the Caribbean. Through the connection with NWO it would be valuable to be informed and supported when it comes to grant writing skills and identify relevant opportunities, focusing on Caribbean-based consortia. The future CNSI could represent the interests of Caribbean-based consortia and individual researchers at NWO – put research themes on the agenda, signal problematic procedural obstacles that bar Caribbean applicants from entering a level playing field and identify or advise for specific Caribbean-focused calls. A future CNSI would serve (young) scholars well by providing (infrastructure for) courses on research skills, networking, academic leadership, grant writing, and so on.

For the future CNSI to have societal and scholarly/scientific impact, a key focus should be on young scholars (MA, MSc, PhD). A funding program specifically aimed at funding talented PhD research in the region will strengthen the local knowledge infrastructure and eventually support sustainable capacity building. In order to support this even further, a suggestion is made for 'career track funding': talented MA/MSc students can develop themselves in a research-master course, followed by PhD-research, followed by a postdoc position. This will add to local and regional capacity building and overcome the precarious situation of funding for young researchers in academia in this context. This would retain knowledge and skills and ensure young scholars are not leaving the region in order to seek additional PhD/postdoc opportunities.

Mobility grants would further improve local and regional capacity building, as it enables scholars and scientists to temporarily expand on their skills and expertise, but also bring their own expertise (research and teaching) amongst the islands of the Dutch Caribbean region.

Appendix 10.5 - The rapporteurs' remit

The rapporteurs' remit

At the request of, and on the authority of the Executive Board of NWO, the Caribbean Research Programme Committee (PCCO) is to appoint two rapporteurs, one for the Caribbean islands and one for the European Netherlands, to explore alternative scenarios for the future of the Caribbean Netherlands Science Institute (CNSI) and advise on further action.

1. Principles

- 1.1 The objective is to identify ways in which to achieve the sustainable strengthening of the knowledge system of the Caribbean islands of the Kingdom of the Netherlands. The resultant report should not be an evaluation of past or current performance but an exploration of future opportunities.
- 1.2 The rapporteurs are free to examine all options and scenarios, from the continuation of current operations unchanged to the closure of the CNSI, and all points in between.
- 1.3 The rapporteurs are to maintain full impartiality. They are to develop scenarios for the future of the CNSI based on observation, general input and interviews with relevant stakeholders, both on the Caribbean islands and in the European Netherlands.

2. The rapporteurs

- 2.1 There will be two rapporteurs (see suggested profile, below), who will produce a joint final report including recommendations. They will report directly to the PCCO.
- 2.2 The rapporteurs will receive appropriate remuneration from the programme budget. Additional expenses, such as travel costs, will also be reimbursed from the programme budget.

3. Profile rapporteurs

- 3.1 The rapporteurs are independent and will offer advice in a personal capacity. They should have an affinity with the knowledge system of the Netherlands and the Caribbean islands of the Kingdom. They should have a broad outlook, a connective character, some authority, and experience in an advisory role. They should be able to engender trust and confidence on the part of the relevant stakeholders.
- 3.2 The rapporteurs must have no personal interest or direct involvement in the CNSI or in the current NWO Call for Programme Chairs.
- 3.3 The rapporteurs must be able to make the necessary time available for this project. Remuneration will be provided.
- 3.4 The rapporteur for the islands should be well established in the Caribbean part of the Kingdom and possess a good knowledge of relationships in the region.
- 3.5 The rapporteur for the Netherlands should have (public) administration experience and a network of relevant contacts within the tertiary education sector and relevant ministries.
- 3.6 The rapporteurs must maintain political neutrality.

4. Questions to be answered by the rapporteurs

- 4.1 How can the CNSI be of added value to the sustainable strengthening of the knowledge system of the Caribbean islands?
- 4.2 What is an appropriate organizational structure (including business model and governance arrangements) for the CNSI?
- 4.3 What is an appropriate physical location for the CNSI (including options such as a distributed facility or virtual centre)?
- 4.4 What activities should the CNSI undertake in future? What services should it provide?
- 4.5 What is the relationship between the future CNSI and the Caribbean Research programme, with particular reference to the Programme Chairs and their research programmes (including communication, outreach and capacity-building)?
- 4.6 What is the relationship between the future CNSI and regional knowledge institutes (universities, schools, etc.) and their activities?
- 4.7 What is the relationship between the future CNSI and knowledge institutes in the European Netherlands (universities, universities of applied sciences, TO2 institutes, etc.)?
- 4.8 What position should the CNSI take in relation to the Dutch government and the governments of the independent islands of the Kingdom of the Netherlands?
- 4.9 What will be the required budget for the future CNSI and (in broad terms) how will this budget be spent?
- 4.10 Who will benefit from the CNSI of the future and who will pay towards its upkeep?
- 4.11 How can the CNSI be permanently embedded in the Caribbean region? Will the CNSI of the future play a part in regional plans and projects? If so, which plans and projects?

5. Interviewees

- 5.1 The rapporteurs are free to select the parties they wish to consult. As a guide, Appendix 1 includes a list of relevant people and institutions with whom the rapporteurs may wish to speak.

6. Method

- 6.1 The PCCO will appoint the rapporteurs and explain the assignment at a joint meeting. Further meetings can be held at the request of the PCCO or the rapporteurs.
- 6.2 The NWO-I office will provide the necessary background information.
- 6.3 The rapporteurs will interview relevant parties on the Caribbean islands and in the European Netherlands. Based on the information thus obtained, they will produce a joint report describing alternative scenarios for the future of the CNSI.
- 6.4 The scenarios and the recommendations of the rapporteurs should be entirely within the framework of the instructions issued to NWO by the Ministry of OCW, as formalized by means of internal NWO decisions (see assignment letters, Memoranda of Understanding, Executive Board decisions).
- 6.5 The rapporteurs will receive support from the NWO-I office.
- 6.6 The exploration is to be completed within a period of three to four months.

Appendix 10.6 - Glossary

AMA	Asosiashon Mediko di Antias
CARAF	Caribbean Research Acquisition Forum
CARMABI	Caribbean Research and Management of Biodiversity
CBHRI	Curaçao Biomedical & Health Research Institute
CNSI	Caribbean Netherlands Science Institute
DCNA	Dutch Caribbean Nature Alliance
DUCARP	Dutch Caribbean Research Platform
EU	European Union
IPA	Instituto Pedagógico Arubano
NGO	Non-governmental organization
NIOZ	Royal Netherlands Institute for Sea Research
NWO	Dutch Research Council
OCW	Netherlands Ministry of Education, Culture and Science
PCCO	NWO Caribbean Research Programme Committee
RvA-CNSI	Advisory Board
RvB	(NWO) Executive Board
SAMOA	SIDS Accelerated Modalities of Action
SDG	Sustainable Development Goals
SIDS	Small Island Development States
SISSTEM	Sustainable Island Solutions through Science, Technology, Engineering and Mathematics
UA	University of Aruba
UoC	University of Curaçao
USM	University of Sint Maarten

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