



An Outline for Conservation
Finance in Sri Lanka's Marine
Protected Areas:

THE CASE OF THE VIDATHTHALTHIVU NATURE RESERVE

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Future (CSF) in collaboration with
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Centre for a Smart Future (CSF) is an interdisciplinary public policy think tank based in Colombo, with a network of researchers, practitioners, and policy professionals around the world. In collaboration with Blue Resources Trust, CSF has been working on crafting a framework for a Conservation Investment Plan dedicated to the sustainable financing of the Vidaththalthivu Nature Reserve (VNR). Through this initiative, we have examined some of the requirements needed to attract financing solutions for long-term sustainability, including analysis of stakeholders of an MPA, and the uses, users and tensions. We commenced working with the Department of Wildlife Conservation (DWC), by building their knowledge and technical capacity around conservation finance techniques, planning methodologies, and stakeholder considerations. Through this publication, we aim to provide a detailed exploration of the strategies and considerations essential for fostering sustainable investment in nature reserves, thereby contributing to the long-term conservation and resilience of ecosystems.

DRAFT

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LIST OF ABBREVIATIONS

Conservation Investment Plan	CIP
Director General	DG
Department of Fisheries and Aquatic Resources	DFAR
Department of Wildlife Conservation	DWC
Divisional Secretariat	DS
Global Biodiversity Framework	GBF
Global Environment Facility	GEF
Grama Niladhari Division	GND
International Union for Conservation of Nature	IUCN
Management Plan	MP
(Marine) Protected Area	(M)PA
Ministry of Wildlife and Forest Resources Conservation	MoW&FRC
National Aquaculture Development Authority of Sri Lanka	NAQDA
Protected Areas	PA
The Fauna and Flora Protection Ordinance (No.02 of 1937)	FFPO
United Nations Development Programme	UNDP
Vidaththalthivu Nature Reserve	VNR
Vidaththalthivu Nature Reserve Management Plan	VNR MP

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INTRODUCTION

This report explores the concept of conservation finance for the management of Marine Protected Areas (MPA(s)) in Sri Lanka. Focusing on the existing operations and the newly developed management plan of the Department of Wildlife Conservation (DWC) specifically at Vidaththalthivu Nature Reserve (VNR) MPA site, it looks at how conservation finance can be approached to support wildlife conservation management efforts and outcomes. By observing and reporting on the ground situation and challenges encountered at VNR, this case study offers insights into how strategic financial planning in PA management can bolster the conservation of Sri Lanka's vital marine ecosystems.

The information contained in this document has largely been obtained from a series of interviews conducted with DWC officials (refer Annexure 1: Log of the interviews conducted) as well as through the VNR Management Plan (VNR MP) shared with us, unless specified otherwise. This is written with a focus on the VNR MP, but reflects the processes and operations of the DWC, unless stated otherwise. This document will inform strategizing and planning to come in CSF's work to follow.

OBJECTIVE AND AIMS

The objective of this document is to provide a detailed overview of the DWC's current operations towards conservation and to make the case for taking a conservation finance approach to related management planning. This reports presents this case to the reader by aiming:

- To present conservation finance as a practical and inclusive approach for PA Management Plans (MPs).
- To explain the recent efforts of the DWC in developing PA MPs that address existing issues in the state apparatus' approach to conservation.
- To evaluate how PA MPs can effectively address the challenges identified in the VNR and propose a holistic approach through conservation finance.
- To highlight the intuitive nature and practical benefits of conservation financing plans, such as the Conservation Investment Plan (CIP).
- To emphasize the importance of incorporating community considerations into planning, demonstrating how this leads to improved conservation outcomes.
- To illustrate how PA Management planning through a conservation finance approach can enhance management and enable the state apparatus to innovatively attract and utilize resources.

SECTION 1: An Introduction to Conservation Finance

1.1 Context to Conservation Finance

Box 1: Quote by the Conservationist, Clayton Hall

“Conservation without resources is just conversation”
- Clayton Hall, *Conservationist*

(Source: <https://www.corpwatch.org/article/conservation-all-costs>)

Nature and biodiversity conservation is a critical issue that necessitates strategic resource allocation. Conservation finance emerges as a response to this, ultimately aiming at the efficient allocation of financial capital to sustain biodiversity. This is done by not only addressing the economic value of conservation but also emphasizing the intrinsic ecological values and their importance to the stakeholders who rely on, and protect these resources. This approach bridges environmental sustainability and economic incentives, ensuring that local communities, industries, and governments alike see tangible benefits from conservation efforts. Efficient financial management, including transparent accounting and strategic investment, is essential to maximizing resources for conservation.

By identifying these links, we can demonstrate how healthy ecosystems contribute to economic stability and growth. For example, by recognizing the vital services ecosystems provide—clean water, air, and fertile soil—the value that healthy ecosystems contribute to economic stability and growth can be understood. Moreover, by monitoring outcomes and addressing gaps, conservation finance ensures that financial investments are impactful. It is essential to monitor the results and outputs of these investments to make sure that the monetary resources have the intended conservation effects. This is where targeting and planning in order to respond to conservation requirements is important.

1.2 The Problem of Underfunding

World over, as newer and increasingly ambitious targets are set, a growing number of resources are required to meet those targets. For example, the Sustainable Development Goal Target 14 of conserving 10% of Marine area by 2020. The COP15 Kunming Montreal Global Biodiversity Framework (GBF) builds on the achievements and lessons learned from COP10, and sets a more ambitious and comprehensive set of targets- the '30 by 30 target'- to protect 30% of Marine Protected Areas by 2030.¹

¹ “Aichi Biodiversity Target 11 Country Dossier: SRI LANKA,” 2021

This feeds into national government targets for countries such as Sri Lanka, as a signatory of such pledges. However, as of 2021, only 0.3% of marine areas are declared PAs in Sri Lanka, indicating a greater demand for resources and budget commitments to meet these conservation targets.

To meet these targets, there are resource gaps that need to be filled. These gaps can be categorized as Funding Gaps, or Budget Gaps. The former refers to the lack of funding sources and money needed to meet conservation outcomes, while the latter refers to the estimated amount required being insufficient to meet the true on-the-ground conservation requirements². Globally, the annual marine conservation financing gap is approximately 150 billion dollars³. Therefore, in order to identify and respond to plugging these gaps the requirement becomes calculating the budget needs, seeking funds through already available funding such as government allotments, assessing the funding gap and lastly plugging this gap by seeking alternative sources of finance, to tackle the problem of underfunding.

1.3 Multiple Dimensions to Sustainably Funding Conservation

The complex problem of funding marine conservation requires more than just money. The true cost of conservation asks what is the real amount of funding needed to conserve the habitat, species, ecosystem, ecosystem services and biodiversity. This requires looking beyond conservation operations (i.e. core institutional and operational costs) also considering opportunity costs and transaction costs as given below (refer Figure 1: Definition of all costs of conservation).

Figure 1: Definition of all costs of conservation

² Van Zyl, H. & L. Emerton (forthcoming), based on data in Waldron et al. 2020

³ Johansen and Vestvik, "The Cost of Saving Our Ocean - Estimating the Funding Gap of Sustainable Development Goal 14.

Operational Costs	Core Institutional Costs	Opportunity Costs	Transaction Costs
Expenditures to run PAs activities and implement plans and actions	Expenditures to maintain institutions, policies capacities etc. necessary for conservation	Foregone or diminished development, land and resource use opportunities	Time, effort and resources required to comply, engage and participate in conservation

(Source: Meyers, D. et al. Conservation Finance: A Framework, Conservation Finance Alliance, 2020)

Traditionally, operational costs that fund the typical day-to-day site level rangers' activities are the focus of funding for site-level efforts or programmes. Along with operational costs, core institutional costs- which cover central level costs, policies and laws that enforce conservation mandates- are usually dealt with by state conservation authority budgets.

Opportunity costs, refer to the value of alternatives forgone as PA are declared and conservation efforts are carried out. If a land is declared as a strict PA, other economic activities that would otherwise reasonably exist in its place, for example, land development or individual businesses such as shrimp farms, cannot go ahead. This should be considered as a cost in deciding how the stakeholders who would have carried out these economic activities, such as local business and communities, can be compensated for.

When determining costs, it is important to consider who and how these costs are borne. The stakeholders who incur the costs or gain from better environmental management are crucial for setting priorities and creating efficient financial solutions⁴, and therefore are a key component of taking a conservation finance approach. While costs are usually borne by the authority who holds a conservation mandate, it also involves the local community and other area authorities, NGOs and civil society organizations. Cost bearers increasing also include private companies, banks, insurance providers and development authorities that play a role in conservation efforts or services.

⁴ Appolloni et al., "A New Approach to Assess Marine Opportunity Costs and Monetary Values-in-Use for Spatial Planning and Conservation; the Case Study of Gulf of Naples, Mediterranean Sea, Italy.

While all these nuanced costs of conservation may not be footed directly, to truly plug the gap all costs need to be addressed. It is evident that access to more funding does not necessarily guarantee successfully financing conservation outcomes without all costs having been considered⁵.

The incentives that make people conduct activities in a way conducive for conservation is also an important consideration for plugging the gap. This, together with efficient and effective financial management systems look at how conservation outcomes are made worthwhile to pursue. Moreover the capacity and empowerment of conservation authorities and stakeholders to have agency over financial decision making reinforce meeting this true cost of conservation.⁶

1.4 Key Ingredients of Conservation Finance

Box 2: Definition of Financial Sustainability, International Union for Conservation of Nature (IUCN)

“The ability to secure sufficient, stable and long-term financial resources, and to allocate them in a timely manner and in an appropriate form, to cover the full costs of conservation and to ensure that they are managed effectively and efficiently”

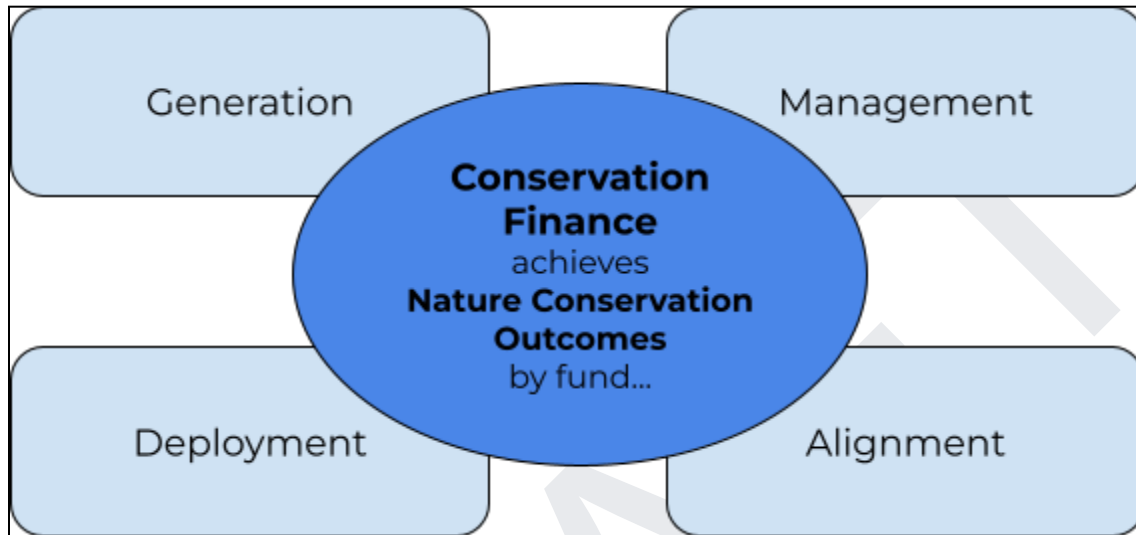
(Source: Meyers, D. et al. Conservation Finance: A Framework, Conservation Finance Alliance, 2020)

All these aspects reflect the multiple dimensions of funding required to cover PA conservation costs and cost-bearers. Conservation finance directs financial resources to improve outcomes for nature. This is the core objective of conservation finance defined by the Conservation Finance Alliance (CFA) as: “mechanisms and strategies that generate, manage, and deploy financial resources and align incentives to achieve nature conservation outcomes.”

⁵ Appolloni et al., “A New Approach to Assess Marine Opportunity Costs and Monetary Values-in-Use for Spatial Planning and Conservation; the Case Study of Gulf of Naples, Mediterranean Sea, Italy.

⁶ L. Emerton and Bùi Thị Hà Ly, Guidelines: a stepwise approach to sustainable finance planning for protected & conserved areas. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Hanoi and Eschborn, 2021

Figure 2: The essential ingredients of conservation finance



(Source: Meyers, D. et al. Conservation Finance: A Framework, Conservation Finance Alliance, 2020)

Fund generation refers to sourcing funds required to support and continue nature conservation initiatives. This entails finding money from a range of sources, including private investments, government budgets, and innovative financial solutions such as green bonds or payments for ecosystem services. Furthermore, a range of sources are likely to demonstrate the economic benefits of nature to a range of stakeholders on a national and local level. Bringing in money from natural ecosystems—for example, by enacting green taxes or eco-tourism—highlights the financial significance of preserving healthy ecosystems and offers a stable funding source for conservation.

One of the most important tactics for improving conservation results is incentive alignment. This calls for modifying detrimental incentives that impair biodiversity, including subsidies for environmentally destructive enterprises, and enacting disincentives to deter harmful behaviors⁷, like pollution taxes or fines for illicit logging. Positive incentives, including tax rebates for businesses that lessen their ecological footprint or subsidies for sustainable farming techniques, are crucial in promoting conservation-related behaviors. Green procurement policies that prioritize environmentally friendly goods, certification programs that incentivize

⁷ BIOFIN (2018), The biodiversity finance initiative

sustainable products, regulations that enforce conservation-friendly practices, and socially responsible investing that allocates capital to conservation-positive businesses: are some of the mechanisms that facilitate these incentive adjustments.

Deployment of funds in this context involves strategically allocating funds to achieve specific conservation outcomes usually set out in a predetermined plan. A critical aspect of deploying is tracking the long-term outcomes of spending, allowing for continuous learning and improvement. By analyzing results, both positive and negative, conservation finance can adapt and refine its strategies to ensure that money set aside for conservation is seen as an investment leading to meaningful and sustainable targets and in some cases financial returns. This includes grantmaking, leveraging additional funds, and making targeted investments to maximize conservation impact⁸. Here efficient, effective and disciplined spending is important ensuring that resources are used responsibly.

Data and record keeping of resources is a significant aspect of such finance. This involves careful bookkeeping and minimizing operational/transaction costs in the short term while thinking of long term continuation of operations. Accountability and operational efficiency are key values in short term management, ensuring that every rupee collected for conservation is used for that purpose. Management strategy also includes cost-saving measures through efficient practices, through involving local communities in PAs management, which usually requires fewer resources due to local knowledge and sustainable use practices. By focusing on these aspects, conservation finance can maximize the impact of available funds and ensure responsible financial stewardship as well for conservation in PAs.

⁸ Meyers, D. et al. Conservation Finance: A Framework, Conservation Finance Alliance, 2020

SECTION 2: An Overview of Protected Area management in Sri Lanka

2.1 Protected Area Management in Sri Lanka

In Sri Lanka, Protected Area (PA) management is entrusted to the Department of Wildlife Conservation (DWC). Founded 74 years ago, this institution is governed by the Fauna and Flora Protection Ordinance (FFPO) (No.02 of 1937) and the Fauna and Flora Protection (Amendment) Act, No. 22 of 2009 which establishes the legal authority to set up and manage a network of PAs. Currently, this PA network exceeds a total area of 8,500 square kilometers, roughly 14% of the island's land and sea⁹.

This PA network, zoned into 12 administrative wildlife regions, is recognized as an invaluable resource to the country. The DWC mandate is to professionally manage and conserve species and ecosystems within this network. This intention is further substantiated in the current National Wildlife Policy (refer Box 3: An extract from the National Wildlife Policy). In 2000, the Cabinet of Ministers authorized the department's reform of the wildlife policy to align it with contemporary conservation principles and methods. Therefore, this department is the de jure state apparatus responsible for PA management and biodiversity conservation in Sri Lanka.

Box 3: An extract from the National Wildlife Policy

Policy on Protected Area Management and wildlife Conservation:

National Policy in this area is (...redacted...) to manage all protected areas according to approved management plans, which will be reviewed and revised regularly, and implemented by staff at the field level who will be afforded such authority and resources as they need to do so effectively..

(Source: "Department of Wildlife Conservation" website, <http://www.dwc.gov.lk/>)

2.2 Work Done at and Sources of Funding for Protected Areas

The enforcement of the FFPO is the DWC's key responsibility. This is strategized at the head office in Colombo and carried out at the PA by site level range officers. The DWC head office has full discretion on resource allocation, including range officer allocations. Following this centralized model, the enforcement of the FFPO legislature should not materially change from site to site within PAs islandwide. This means that site level rangers have a common training and once assigned a post,

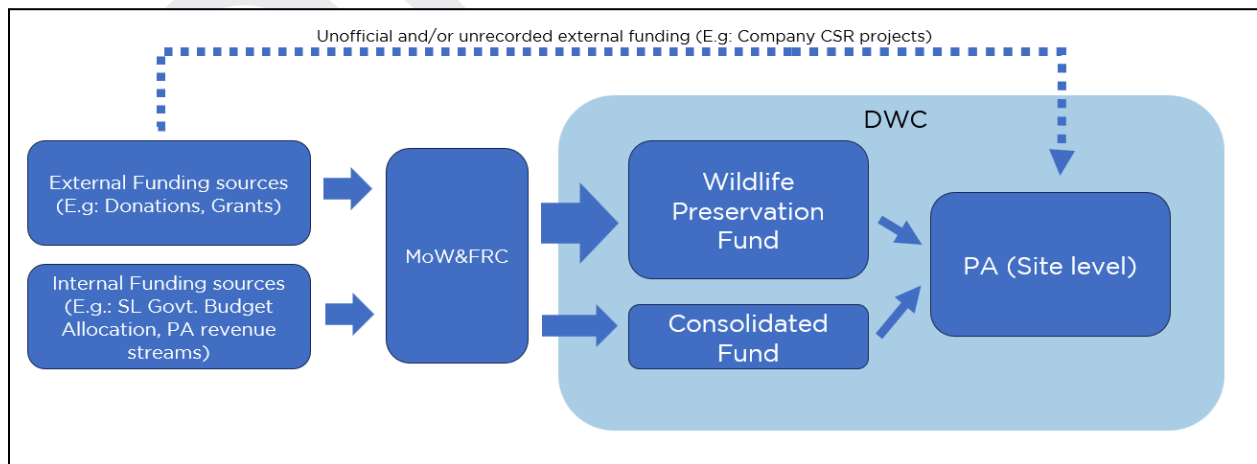
⁹ "Performance Report of the Department of Wildlife Conservation", 2018

carry out activities based on resources assigned to their PA post. Therefore, site level work and activities to be carried out did not necessitate site-specific plans that are written down.

Some PAs have had written Management Plans (MPs). MPs guide a site-specific strategy, instructing activities to be operationalized within a specified timeframe. These MPs had been developed by external institutions and given to the DWC. External institutions would follow contemporary conservation principles and methods to draw up these plans for implementation and operationalization on a site level. For example the Bar Reef Marine Sanctuary Management Plan endorsed by the DWC, has been drafted by the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP). However, according to DWC officials, while these MPs were drafted by technical experts and have therefore followed a thorough practice, they have been overly ambitious and therefore, are not easily implementable on the ground unless directly funded externally.

Generally, funds are sourced to meet PA site expenditures either internally (via the state apparatus) or externally. The majority of funding is sourced through the Sri Lanka government budget allocation through the Ministry of Wildlife and Forest Resources Conservation (MoW&FRC) under which the DWC sits. External funding sources predominantly refer to direct donations or projects where outcomes are funded through other national or foreign partners. These funds are collected in one of two funds maintained by the DWC, The Consolidated Fund (CF) or the The Wildlife Preservation Fund (WPF) as depicted below and explained in Annexure 2: Detailed explanation of the CF and the WPF.

Figure 3: Flow of funds from source to PA



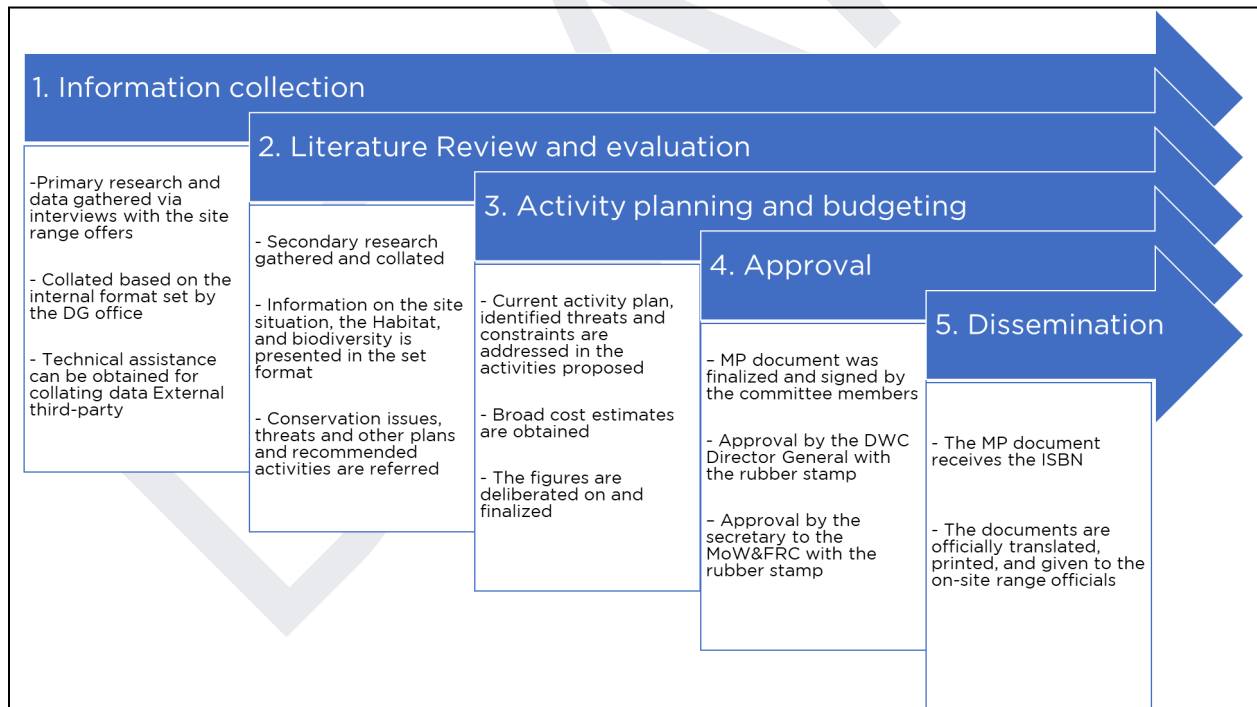
(Source: Author's construction based off interviews with DWC officials)

2.3 The Development of the VNR Management Plan and Budget

Recently, the DWC has begun developing site-specific MPs in-house. In 2023, the Vidaththalthivu Nature Reserve (VNR) had a MP drafted, making it the first MP where an external institution has not been involved. The VNR MPB outlines operational and conservation activities from 2024 to 2028. This 5-year period envisions a budget of approximately 150 million rupees to meet these planned activities to be sourced internally.

The VNR MP and budget were developed by the VNR Management Plan committee (refer: Annexure 3: The VNR Management Plan committee) following the guidelines in the National Wildlife Policy of Sri Lanka and based on experiences, advice, and supervision of the DG (Director General). The committee, consisting solely of DWC staff members, was appointed to oversee all aspects of drafting the VNR MP (this is illustrated below in Figure 4: The process followed for the VNR management plan) and to be done so in a manner that is practically implementable. According to the DWC official interviewed, future MPs are to follow a similar process.

Figure 4: The process followed for the VNR management plan



(Source: Author's construction based off interviews with DWC officials)

The plan is written in simple, easy-to-understand language for stakeholders and users, including range officers on site. Originally written in Sinhalese it has now been translated into English and Tamil languages as well increasing accessibility. The goal is to empower and inform DWC activities from the Colombo office to other DWC

officers. The VNR management plan serves as a guiding document, with activities and budget line items envisioned for year-by-year adoption and execution.

The suggested activities and subsequent budget has been decided with cost estimates obtained from the VNR MP committee and finalized with the head office's technical divisions (refer Annexure 4: Technical divisions and supporting divisions of DWC head office). External third-party technical assistance was also obtained during this stage from Pelagikos PVT Ltd.

Box 4: External third party assistance for VNR MP

- Pelagikos PVT Ltd is a Sri Lankan consultancy company driving sustainable fisheries, equitable and responsible seafood, marine resource management and the conservation of marine resources
- Situated in Mannar, Pelagikos handled the species related data collection for the VNR management plan, as well as subsidized the printing and translation of the VNR management plan to English and Tamil languages.
- The format of the necessary data collection was given by DWC to Pelagikos, who collected and collated the relevant information.
- Pelagikos also type setted the plan and was very supportive through the drafting process.
- It is subsequently partnered with Oceans5 in Sri Lanka and a funding recipient of the project.

(Source: Interviews by DWC officials and Pelagikos website <https://www.pelagikos.lk/>)

While it is a commendable milestone for DWC's conservation efforts, it was noted that the inclusion of an activity in the plan does not guarantee its execution. Given that there has been less than a year of the VNR MPs' drafting, the translation of this plan to effective execution is yet to be observed and therefore is not discussed in this report. MP's are in the process of being drafted for other PAs in Sri Lanka and tight resources for drafting these detailed site level plans have been observed.

2.4 DWC Expenditure Budget for the VNR Management Plan

The budget includes all expected expenditures for the time period of the Management Plan directly linked to the stipulated activities of the plan. All expenditure line items are categorized in one of two types:

- Recurrent - For daily/ short term expenses such as:

- Stationary
- Sign boarding
- Minor vehicle repairs

- Capital - A value addition to conservation and operations is present and that value is retained; examples include:
 - Training programmes (Increase in human capital)
 - Buildings and construction
 - Major Vehicle repairs or expenditures
 - Habitat enrichment

Expenditure line items included in the management plan budget are usually capital expenditure related (refer: Annexure 5: The Theme, strategy and activities mentioned in the VNR MP). Funds to meet these expenditures are to be sourced internally. Expenditures are to be settled through one of two funds (refer Annexure 2: Detailed explanation of the CF and the WPF). According to the DWC, the CF is typically used for capital expenditures while the WPF is typically used for recurrent expenditures.

Internal fund sourcing and expenditure settlement is heavily centralized with fund deployment limits the ability of actors to be with increased accountability. However this lowers the ability of urgent funding to go through. Moreover, this places the onus on stringent record keeping to ensure this with audit processes in place. It was observed that the DWC officials behind the VNR MP have low involvement in terms of financial decision-making. PA rangers too have little decision making power in terms of fund retention and financial administration/ management.

Another concern is that the VNR MP budget line items do not have a process for obtaining costing estimates. While making a budget reliable estimates need to be obtained to avoid over or under budgeting when planning. However, as the VNR MP and budget are internal guiding documents to be sourced internally it may not pose a major risk. Moreover, the activities held out and specific funding for the line items will only become clearer after some time taken to implement the management plan, which will begin next year. The focus for 2024 will be on training for the rangers, as mentioned under the theme Administration and training (refer: Annexure 5).

SECTION 3: The VNR: Management Plan activities and expenses

3.1 Overview of the Ecological Value of the Vidathalathivu Nature Reserve

Declared as a PA in March 2016, the VNR spans a wide area of 29,180 hectares and is the third largest marine protected area in Sri Lanka. This reserve boasts a distinctive overlap of land and marine ecosystems along its 2.8 km of shoreline¹⁰. It serves as a birth site for a large number of fish and invertebrate species—which are essential for preserving the health and productivity of the surrounding environment—this area is significant for the protection of diverse marine species. Many bird species fly great distances along the Central Asian Flyway, and rely on the VNR as a habitat¹¹. This is the same for marine animals that are migratory. The presence of migratory species is an important indicator of an ecosystem's value to the local as well as global environment.

The VNR's mangrove forests and intertidal zones serve as natural barriers against storm surges and sea level rise, which significantly reduces coastal erosion. This habitat also supports rich biodiversity, including several endangered and endemic species, making the reserve a critical area for conservation efforts. Its vast mangrove and wetland habitats are crucial for carbon sequestration and nitrogen cycling, two natural processes critical in climate regulation¹². Protecting this reserve ensures the preservation of these vital ecological functions highlighting why it was and should be conserved as a PA.

¹⁰ "Vidaththalthivu Nature Reserve | Sri Lanka Biodiversity," n.d., <https://lk.chm-cbd.net/protected-areas/vidathalathivu-nature-reserve>.

¹¹ Wijesundara et al., "Diversity and Conservation of Waterbirds in the Northern Avifaunal Region of Sri Lanka."

¹² Alawathugoda et.al 2018

Image 1: Satellite map of the VNR PA



(Source: Created through google earth based on the coordinates provided by Gazette No. 1956/13 on 1 March 2016)

3.2 DWC Activities at the VNR and Related Issues

Operations at the VNR comes within the Vavuniya wildlife region for DWC, which includes both Vavuniya and Mannar. Currently the District AD (Assistant Director) for Anuradhapura has been appointed as the acting AD for the Vavuniya region. While there are 35 range officers in the Vavuniya wildlife region, there are only 3 officers for the VNR (refer: Annexure 6: VNR site level presence of the DWC).

Before the VNR MP was created, range officers handled a number of responsibilities, with the focus on resolving problems arising from human contact in the PA. Officers on call mainly work towards preventing animal poaching and illegal fishing, which poses a major risk to the reserve's ecology. Moreover, managing land title disputes within the VNR demarcated area is a common and divisive subject that frequently pits members of the local community against conservation efforts. Resolving this is viewed as another one of range officers primary activities.

The range officers' duties also include community outreach, which was essential in building local support and understanding for conservation initiatives. They put in place a number of programs, including educational signboards, school awareness

campaigns, and partnerships with the Urban Council to encourage community engagement and conservation education. These outreach initiatives, however, were severely budget-constrained.

According to the interviews conducted, the range officers face difficulties in enforcing the FFPO and safeguarding the integrity of a reserve of this size and complexity. Rangers collaborate with the Sri Lanka Police Department (SLPD) for patrolling and work closely with the Navy and Coast Guard officers on enforcing poaching restrictions. Officers have to traverse the legal system when they are involved in legal issues linked to these aforementioned conflicts, being present for court proceedings on disputes, without any state-provided legal assistance.

The range officers' capacity to oversee maintenance and transportation—two tasks critical to the ongoing success of site level management—is also hampered by a lack of funding. Therefore, even with the best efforts from rangers, community outreach programs frequently fell on the wayside having limited desired effects. Funding for such initiatives were erratic and according to the rangers expected to be biased in favor of PAs with well-known animals. PAs with charismatic species such as elephants, are suspected to receive a disproportionate amount of funds. Other PA species and conservation efforts often go overlooked as a result. These issues highlighted the need for a better organized and well-funded plan centralized planning model to support conservation activities and community engagement programs across the entirety of Sri Lanka's PA network.

3.3 Site Level Expenses at the VNR

Based on internal sources, the DWC incurred site-level expenses approximately rupees 3,830,000 prior to the development of the VNR MP budget. This focused on administration and zonation expenditure with a 500,000 allocated for infrastructure development. Ranger salaries are a main expense. The maintenance of vehicles, stationery, and cleaning supplies are all covered by this through monthly transferred funds. Monthly fuel quotas are also transferred based on individual vehicles owned; motorbikes are more costly because of how often they are used and the difficult terrains traversed. These items are necessary for rangers for the general upkeep of their administrative work as well as to travel to the VNR site, veterinary service clinic and court appointments.

The AD office oversees and pays for overhead expenses like phone lines, electricity, and water, making sure that the rangers on site have access to these necessities. The AD office also pays a rent for the facilities at Vidaththalthivu bittu office which is closer to the VNR reserve area than the Wildlife range office in Mannar.

Additionally, the site office rangers may propose special project proposals and request for additional funds from the head office. While this has been done in the past to meet the changing demands of continuous conservation efforts, encouragement from groups such as Pelagikos has led to more research and conservation related activities being carried out.

Activities such as water monitoring, invasive species management- through *Acacia* and *Prosopis sp.* (kalapu andara) cutting, boundary demarcation and sign boarding have been supported by external parties. While these were initially funded as resource donations by external parties, rangers also submitted reports requesting the same towards the end of last year.. It is believed these donations frequently support particular conservation sites and give PAs’ much-needed assistance, underscoring the teamwork essential to preserve and defend the VNR.

Table 1: Summary of VNR MP budget

Theme	Allocated Amount (in LKR Millions)
Administration and training	8.665
Security and Law Enforcement	96.82
Natural resource management	2.5
Community engagement	1.2
Wildlife Health Management	1.7
Research and follow-up	3.6
Physical development activities	38.4
Total	152.885

(Source: VNR Management Plan budget)

SECTION 4: Conservation Finance Planning for the VNR Management Plan

4.1 The Impact of the VNR MP on DWC Activities

With the 5 year VNR MP, there have been much welcomed additions to the operations at the VNR. While these additions have simply been named and not detailed in the MP, interviews revealed that these additions have either happened recently on site, or follow a similar process to activities that have been carried out at other PAs. These include the themes of Administration and training, Security and Law Enforcement as well as Research and follow-up (as mentioned in Annexure 5:

The Theme, strategy and activities mentioned in the VNR MP). These additions listed drastically change site-level operations for the VNR within a planned and coordinated framework.

Moreover this plan is intended to guide all activities and therefore is the basis for effecting coordinated conservation efforts. By outlining VNR site level threats, objectives and activities for the ensuing five years, the VNR MP sets the foundation for resources to be allocated more effectively. This maintains that on an annual basis when action plans are drawn up for direct implementation (refer Annexure 7: The general process followed for DWC Action Plans), it follows the standard of this structured approach, which stands in stark contrast to unstructured approach taken prior as discussed. This aligns VNR's conservation efforts with global best practices and can be viewed as a step in the right direction.

4.2 The Funding Related Issues

According to the range officers on site, the VNR faces significant challenges due to persistent understaffing and poor management. The lack of administrative, legal, and wildlife monitoring and assessment training hampers effective conservation efforts, leading to insufficient upkeep and monitoring of the reserve. The mismatch of priorities and limited engagement of the DWC head office leads to rangers often focusing on routine tasks such as court hearings over proactive conservation efforts. As a result, the constraints on resources and staffing may continue to impede effective management at VNR.

This is a funding related issue tied to conservation finance. As rangers at VNR have limited financial decision-making authority, their ability to and interest in responding swiftly to conservation needs is diminished. Newer activities such as water quality sampling or managing invasive species required detailed proposals submitted to the DWC head office, explaining their intentions and requesting funding. This process is time-consuming and often lacks a clear communication channel, especially if funding requests are denied. This red tape slows down rangers ability to act and highlights the need for more streamlined and empowered financial processes at the PA level.

Moreover, ranger responsibilities also appear to overlap with those of other agencies, including the Department of Fisheries and Aquatic Resources (DFAR), the Navy, and the Coast Guard. With this inefficiency resources and processes are duplicated on the one hand and on the other may lead to no response from any authority. Rangers report that community residents feel confused as to which authority grievances and issues need to be reported to as well, further complicating DWC efforts.

Historically, there has been minimal data collection and wildlife health monitoring, with these tasks often left to external non-governmental organizations like Pelagikos. However, recent efforts have led to more systematic operations, enabling more consistent data gathering. This enhanced data collection is crucial for informed decision-making and efficient conservation management at VNR, providing a foundation for more effective resource allocation and strategic planning in the future. Yet these too, while addressed in plans, may run into longevity issues if it is not institutionally established and more critically resourced adequately in terms of technical and human capital.

4.3 Making the Case for Conservation Finance Related Plans at the VNR

As explained in section 1, in order to effectively finance conservation, funding as well as budget gaps must be filled. This can be done by determining which areas most require resources as a first step to meet conservation outcomes- a core objective of conservation finance. This is what a budget typically identifies. Analysis of the VNR MP budgeted activities reveal that operational costs and core institutional costs are covered. Costs along the lines of opportunity costs and transactional costs- while not necessary to be explicitly addressed in a budget- too exist and require attention. Therefore a conservation financial planning approach would attempt to directly address this and issues around it.

Table 2: Activities in the VNR MP categorized according to conservation cost type and research/implementation centered

Activity	Cost Categorization	Research or Implementation centered
Assessment of number of cadres	Operational cost	Research
Regular training	Operational cost	Research
•Diploma Course in Wildlife Conservation and Management	Operational cost	Research
• Senior Certificate Course in Wildlife Conservation and Management	Operational cost	Research
• Junior Certificate Course in Wildlife Conservation and Management	Operational cost	Research
Job Requirements Training	Operational cost	Research
• Computer Training	Operational cost	Research
• GIS Training	Operational cost	Research

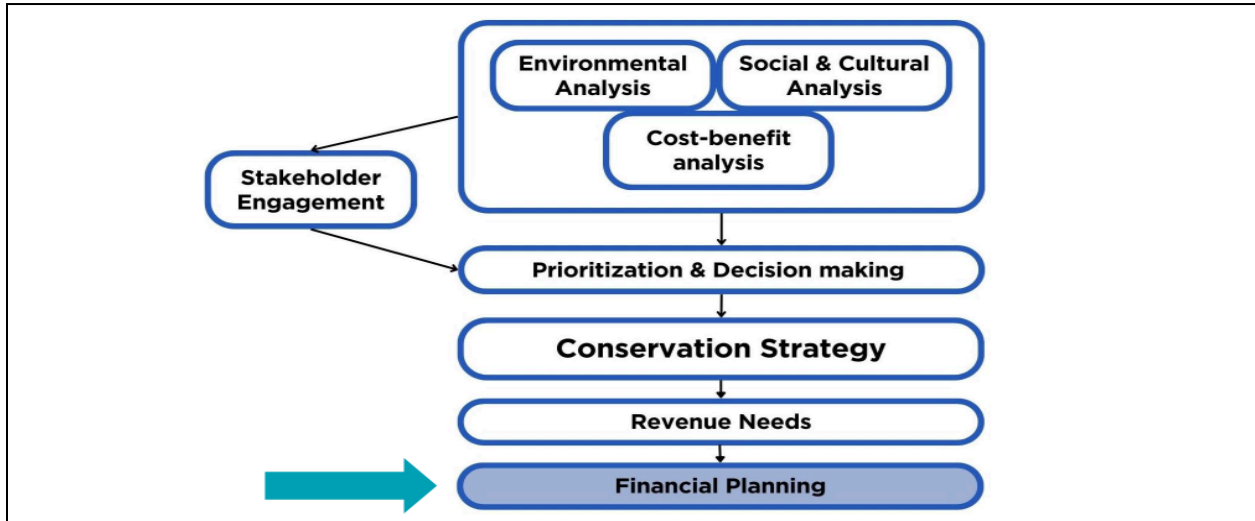
• Training on identification and census of migratory birds	Operational cost	Research
• Training on judicial procedures	Operational cost	Research
• Diving / Snorkeling Training	Operational cost	Research
• Identification of diseased animals by external features	Operational cost	Research
•Scientific Methods of Collection and Storage of Animal Samples	Operational cost	Research
Carrying out measurements	Operational cost	Research
Installation of boundary posts at locations where measurement work is carried out	Operational cost	Implementation
Re-adjustment of boundaries and re-gazetting of adjusted boundaries	Operational cost	Implementation
Acquisition of private lands within the reserve	Operational cost	Implementation
Delineation of Mannar Town Region secretariat division boundary with reference to maps	Operational cost	Implementation
Delineation of Mantai West regional division boundary with reference to maps	Operational cost	Implementation
Preparation of maps of places where wildlife crime has occurred and where more attention should be paid	Operational cost	Implementation
Jointly monitor and monitor patrols with the Navy to stop illegal activities (such as engaging in destructive, illegal fishing activities)	Operational cost	Implementation
Law enforcement against encroachment by aquaculture development and mariculture development	Operational cost	Implementation
Enforcement of laws to protect wild animals and plants	Operational cost	Implementation
Law enforcement against development within 1 mile of the boundary	Operational cost	Implementation
Marking of sensitive ecosystems along the sea coast using "Buoys"	Operational cost	Implementation
Installation and maintenance of no-human activity notice boards	Operational cost	Implementation
Provision of landline phone	Core cost	
Installation of a firearms holder	Operational cost	Implementation
Mangrove Distribution Mapping*	Operational cost	Research
Mapping coral reef distribution**	Operational cost	Research
Seagrass Distribution Mapping***	Operational cost	Research
Prosopis sp. Plant Distribution Mapping**** (Using High	Operational cost	Research

Resolution Satellite Image)		
Opuntia sp. Mapping Plant Distribution (Using High Resolution Satellite Image)	Operational cost	Research
Prosopis sp. Removal of plants	Operational cost	Implementation
Opuntia sp. Removal of plants	Operational cost	Implementation
Mapping of areas with negative impacts on the reserve	Operational cost	Research
Study human resources and physical resources around the reserve and prepare micro plans	Operational cost	Research
Community awareness programs	Operational cost	Implementation
Obtaining conservation information from the community	Operational cost	Research
Provision of traps, nets, snake catching devices, suitable tanks for transporting marine life and aquatic life, smooth ropes required for animal rescue	Operational cost	Implementation
Providing transport cages suitable for transporting animals according to animal species	Operational cost	Implementation
Provision of necessary cages and tanks for keeping animals	Operational cost	Implementation
Ecological research	Operational cost	Research
Research in marine ecology (interactions between marine habitats, organisms and the surrounding environment)	Operational cost	Research
Sociological research	Operational cost	Research
Impact on the surrounding community due to the declaration of this area as a nature reserve	Operational cost	Research
Ecological research	Operational cost	Research
Monitoring and evaluating impacts on coral reef expansion	Operational cost	Research
Monitoring mangrove expansion and impact evaluation	Operational cost	Research
Monitoring and impact assessment of seagrass distribution**	Operational cost	Research
Monitoring the water quality of the streams and rivers flowing into Vidaththalthivu Nature Reserve	Operational cost	Research
Administrative buildings	Core cost	
Staff housing	Core cost	
Providing furniture and office equipment to the administrative building after construction	Core cost	
Furnishing of staff houses after construction	Core cost	
Vehicles	Core cost	

(Source: VNR Management Plan budget categorized by the author)

Many still have a traditional view that finance is something that is added on at the end or that it only entails creating a budget for a specific set of actions that are listed in the PA management plan or conservation strategy. A typical approach to a conservation strategy is depicted in the diagram below.

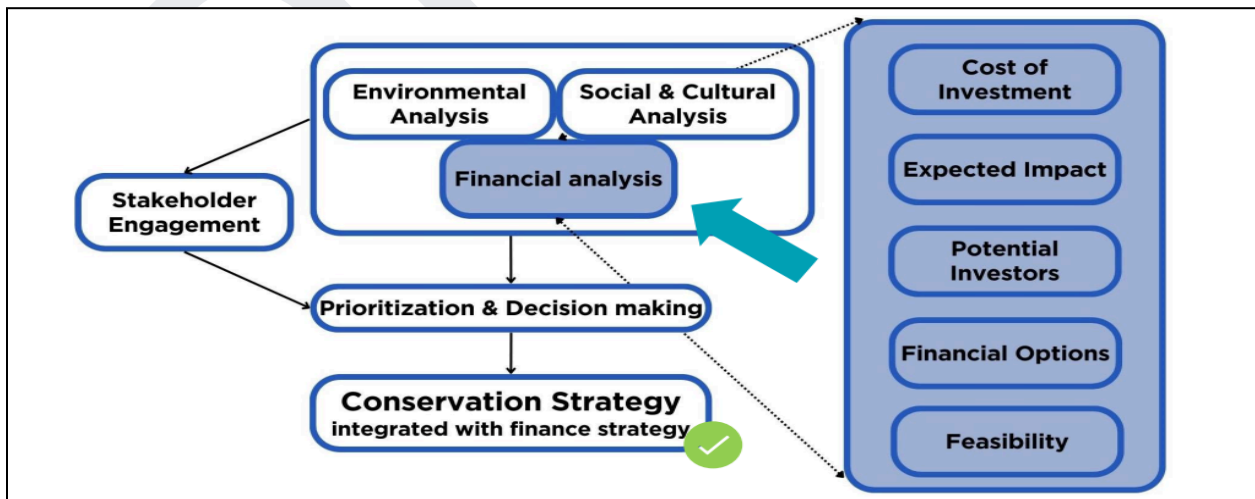
Image 2: Traditional approach to conservation planning



(Source: M. Bos et al., Marine conservation finance: The need for and scope of an emerging Field - Ocean & Coastal Management, 2015)

But it's now recognized that funding is crucial and should play a major role in any conservation plan. It must be completely integrated from the beginning, ideally at every phase of the PA management planning procedures.

Image 3: Updated approach to conservation planning



(Source: M. Bos et al., Marine conservation finance: The need for and scope of an emerging Field - Ocean & Coastal Management, 2015)

By focusing on this, we can make sure that all facets of conservation at the VNR—from preserving essential mangrove habitats and protecting endangered species to defending important social and cultural values and securing ecosystem services for local livelihoods, and even the economy—get the support and funding they require to prosper.

Even with a technically sound finance plan and well-thought-out suggested finance mechanisms, their success is mostly dependent on how well the development process was thought out and carried out. Getting the support and buy-in needed for the financial changes to be implemented successfully has proven to be challenging in a space where there are many authorities and stakeholders with vested interest over the PA. It is important to keep in mind that conservation finance and conservation planning often go hand in hand.

4.4 Conservation Finance Plans for the VNR

Conservation finance is translated into practical, real-world solutions through the implementation of plans, one such plan is called a Conservation Investment Plans (CIPs). These plans bridge the gap between conservation goals turned activities and implementation phases with meticulous planning. By detailing the specific initiatives, expenditures, and efforts required to effectively achieve conservation, CIPs place an emphasis on practicality. Timeliness, technological viability, stakeholder involvement, and financial availability need to also be considered to look at the conservation goals and bucket solutions known as ‘investment packages’ that strategically target different sources for funds.

CIPs also provide clear direction for execution by outlining critical tasks and resources: conservation practitioners may execute plans with efficiency and flexibility. By encouraging collaboration among stakeholders and ensuring congruence with more general conservation goals, CIPs aid in maximizing the impact of funds and investments. In general, such sustainable finance plans are essential in converting conservation goals into practicable actions that eventually lead to actual conservation results.

Furthermore, effective money (cash) management is also essential for a successful sustainable finance plan. Accounting, bookkeeping, and reporting improve the effectiveness of conservation finance decision-making. There is an expectation that such planning and budgeting for conservation efforts is also done in an effective manner. In such a situation even an adaptive management approach- that operates with a greater degree of flexibility, external accountability ensures that the desired

results are monitored and a response to the plan can be scaled accordingly in operations.

In order to have a comprehensive balance in resource management, the costs and benefits in this case should be examined, taking into account the interests of all stakeholders. This may entail cutting back on ineffective spending and programs or altering them. This examines the most effective ways to strategically use the monies for conservation results once they have been obtained. For instance, a PA site can be required to gather and disseminate data regarding a certain endangered species. With the funds in hand, it can be more cost-effective to offer a grant or work in a partnership rather than hiring staff and carrying out the analysis internally. This is why it's so important to consider all available options.

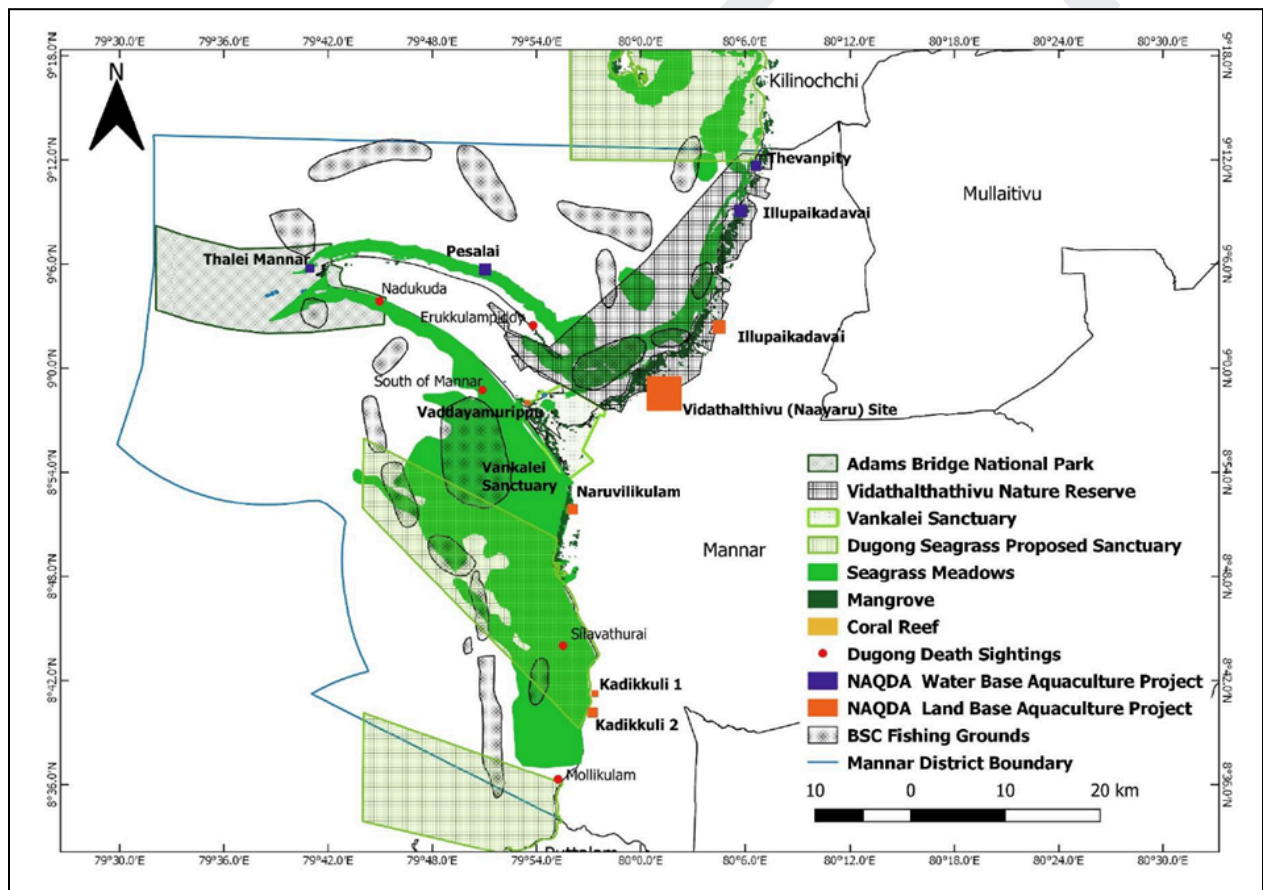
Stakeholder relationships can take various forms, including beneficial partnerships, dependencies, and conflicts. Financial planning in conservation initiatives often overlooks stakeholders beyond state authorities. In the VNR for example, communities are the main stakeholder. In Sri Lanka, the North, after 30 years of conflict, the recent declaration of nature reserves raises questions about community perception and land usage dynamics. You need to know of these to benefit max and conflict mitigation.

SECTION 5: Unlocking Value in Conservation Planning Through Community Integration

5.1 Community Land Use Patterns in the VNR

The community around the nature reserve are the main users, beneficiaries and custodians at the VNR. They historically utilized the VNR area for livelihood-based activities, primarily fishing as well as cattle, goat herding and agriculture. The sustainable use of these resources benefited the community in the past, making them the original custodians, prior to DWC and state apparatus set up.

Image 4: Detailed area map of VNR



(Source: Created by Pelagikos PVT LTD)

The total population in the DS divisions bordering VNR is 65,849 according to 2012 census reports (14,771 from Manthai west and 51,078 from Mannar town) From which 26 Grama Niladari (GN) divisions lie directly on the border and/or within the VNR. {Population; 6140 in Manthai west (14 GND) and 12327 in Mannar town(12 GND)}. The

main form of livelihood activity within the VNR is fishing, both mechanized and non-mechanized techniques are used, catering to a diverse range of seafood harvests.

Accordingly, there are 9,403ha of agricultural land in the Mannar town divisional secretariat and 7,890ha of agricultural land from the Manthai west divisional secretariat which is in proximity to the VNR. The pastures of the VNR have been generationally used for cattle and goat herding, with communities in Mannar breeding both species even before the war.

Box 5: Quote by a local community member interviewed

“We take them in to the VNR because there is no other place for us to take them, we have been grazing in these lands for many years before the nature reserve came to be”

(Source: Interviews conducted at VNR - translated to English)

5.2 Issues in the Current Status Quo Between the Community and the DWC

The DWC as the main state entity responsible for managing and conserving the VNR through wildlife monitoring and poaching prevention would require an amiable relationship with these users. However, its relationship with the community has deteriorated. Communities mistrust DWC due to their perception of the department’s inaction in addressing key environmental threats, such as dynamite fishing, and their disappointment with the authorities lack of proactive measures regarding shrimp farms.

The local community continues to own and use several parcels of land within the VNR, including paddy fields for indigenous livelihood activities. They have petitioned the DWC to relinquish control of these lands. DWC officers emphasize the need to degazette these lands after verifying ownership, citing the erratic nature of boundary mapping due to use of Google Maps in the initial drawing.

Illegal fishing methods, including dynamite fishing and unauthorized nets, persist in the VNR and beyond, despite national regulations. Efforts by organizations like DFAR and Pelagikos have not yielded significant results in mitigating this threat. Herders in the VNR are facing a shortage of grazing land due to claims from wildlife conservation and Forest Departments. Cattle pens, once within the VNR, are now on the opposite side of Mannar Jaffna road, causing concerns about relocation. Although cattle feed on mangroves, they claim it is minimal and only occurs during extreme dry seasons.

5.3 Integrating Stakeholders for Financial Planning

Effective conservation finance planning benefits significantly from comprehensive stakeholder identification and engagement. While not an essential prerequisite, understanding the diverse interests, power dynamics, engagement levels, and potential impacts of stakeholders within a complex ecosystem can enhance cost mapping and shed light on connections between different groups. Techniques for gathering detailed information about stakeholders can provide critical insights. For instance, CSF has highlighted the importance of focusing on stakeholders' interests to uncover weak points and areas for improvement, thereby laying a strong foundation for effective financial planning.

Non-governmental organizations like Pelagikos play a crucial role in fostering collaboration between key entities such as DWC and the Department of Fisheries and Aquatic Resources (DFAR). Effective management of the VNR requires coordination among the DWC's three overseeing offices: the Vavuniya regional office, the Wildlife Range Office Mannar, and the Vidaththalthivu Bittu office. Although this collaboration alone may not solve all conservation challenges, it provides a strong starting point by highlighting areas needing attention and improvement. Regular interactions facilitated by organizations like Pelagikos can enhance the DWC's presence and operational efficiency.

Introducing new conservation solutions necessitates careful consideration of existing stakeholders to minimize unintended consequences. The VNR, for example, has seen the development of various aquaculture projects, including shrimp farming, sea cucumber farming, and seagrass cultivation, with the latter primarily managed by local communities. These projects illustrate the limited use of available resources and the need for inclusive planning. New initiatives must be designed to complement existing activities and support local livelihoods, ensuring that the integration of new stakeholders does not disrupt current practices and benefits.

Inclusive financial planning is paramount in capturing the diverse perspectives and needs of all stakeholders. A CIP should reflect extensive stakeholder consultations to ensure transparency and foster a sense of ownership. This approach enables the DWC to allocate resources more effectively, anticipate potential challenges, and develop robust strategies for the VNR. By integrating stakeholder insights into financial planning, the DWC can unlock significant value in conservation efforts, ensuring sustainable and successful outcomes for the VNR and its surrounding communities.

SECTION 6: Conclusion

6.1 Summary

This report aimed to outline the preamble to the VNR MP and observations on the impact of the VNR MP on existing activities. The implementation of the five-year management plan has led to significant improvements in site-level operations with key achievements including the introduction of structured activities like water quality monitoring and invasive species removal and overall a better approach to PA management and resource allocation. The structured approach is expected to reduce overlap with other enforcement agencies and increase data collection consistency, enabling more informed decision-making. To build on these successes, it is recommended that the DWC continues its good work considering conservation finance planning embedded in the MP development process such as through a CIP. Engaging more with local communities and stakeholders will also be crucial for long-term conservation success.

6.2 Recommendations

- Comprehensive Conservation Finance Planning

To ensure effective conservation finance for the VNR, a comprehensive needs assessment at the site level is essential. This approach minimizes the risk of budget gaps and allows the Department of Wildlife Conservation (DWC) to present a clear, justifiable budget when seeking potential donors. It's crucial to account for all costs, including opportunity and transaction costs, to provide a realistic financial overview. While focusing on national parks or charismatic species can attract attention and funding, it must be executed correctly to avoid neglecting other critical areas.

- Enhancing Stakeholder Relationships

Building stronger relationships and involving various stakeholders is vital for the success of conservation efforts at VNR. As the primary authority for conservation, the DWC should engage more closely with community members, leaders, and other relevant authorities such as the Department of Fisheries and Aquatic Resources (DFAR), National Aquatic Resources Research and Development Agency (NARA), and National Aquaculture Development Authority (NAQDA). Regular platforms for interaction, like the monthly meetings initiated with the help of Pelagikos, can enhance collaboration, improve conservation outcomes, and ensure community support and participation in conservation activities.

- Addressing Fragmentation and Innovating Solutions

The management plan for VNR must address the issue of fragmentation and explore innovative solutions to ensure effective implementation. While the CIP provides a reliable framework, it's essential to clarify that this document should guide actual funding flows rather than serve as a theoretical alignment with the management plan. Flexibility is beneficial, but there must be a balance to ensure that planned activities translate into executed actions. This report acknowledges that the effectiveness of the VNR MPs' execution is yet to be observed, given that it has been less than a year since their drafting. Therefore, a rigorous review process with accountability measures is necessary to ensure follow-through and successful implementation.

- Strengthening Legal and Institutional Frameworks

For effective financial management of conservation efforts at VNR, documenting the legal and institutional basis for funding is crucial. This includes identifying permissible sources, procedures, and mechanisms for financial management, administration, retention, and allocation. Divisional engagement currently appears ad hoc; a structured approach is needed to ensure consistency and efficiency. The focus on the consolidated fund process highlights the capital-intensive nature of the VNR management plan, emphasizing the need for a robust financial strategy. Ensuring transparency and disseminating information to the public can also enhance accountability and support for conservation initiatives.

6.3 Limitations

- Lack of Full and Complete DWC buy-in, Hindered the Quality of Information

One purpose of this document, as mentioned in the 'Overview of this document', is to understand the DWC's processes behind developing plans and the government fiscal transfer process in funding. While the DWC officials initially were willing to be interviewed and shared general overviews on how these processes work, to share more details and sensitive information they requested for formal letters from the Director General. This led to a total of 3 interviews that captured all this information, without follow up interviews that would have added to the depth and complexity of the process captured and subsequently enriched our understanding more. Since the DWC has proprietary control over the data, this also limits our ability to independently verify or challenge the findings presented.

- Important Information Sources Not Being Shared

Source documents that would enrich our findings are the VNR Action Plan for 2024 and past years (historical) budgets for the VNR, both documents and information that remains to be shared with us. This is essential in understanding to what extent and how the VNR MP activities mentioned are operationalized in the VNR Action

Plan. It also sheds light on how the VNR MPB expenditure is different to past spending at the VNR and allowed for a trend analysis to be conducted.

- Delays in Information Sources Being Shared

The official VNR MP document hardcopy was shared with us on the 12th of February, a month after we had begun work on this document. This was an essential source of information and information verification for this document and thus delayed the process for our plans for a CIP foundational document.

- Areas this Document Omitted

Details on the administrative processes related to handling funds from the head office to the site level that may involve the creation of financial documents, approval workflows, and overall management of financial resources. The step-by-step processes and protocols for managing the financial aspects of budgeting, accounting, reporting, and auditing procedures, as well as fund flows from HQ to site. These areas were not captured largely due to the lack of buy-in and limited ability to interview DWC officials and obtain information.

- Bias Present in the Information

Every institution and individual has a set of values, goals, and objectives that may influence the type of information shared. Relying on a single institution or a limited number of people for information may limit the diversity of perspectives and experiences for a more well-rounded view. These biases can affect the objectivity of the data and processes shared by the DWC and therefore may be required to be validated from external third parties involved.

- Interview Process Issues

The findings may unintentionally leave out, prioritize or present information in a way that aligns with the writer's views or prior knowledge, overlooking contesting information. Due to the singular perspective of the source the findings may be generalized and leave out certain practical considerations as well.

6.4 Call for Further Research

There is the need for further research that incorporates multiple sources of information and a deeper institutional perspective to validate, refute, or expand upon the information and findings present in this document. Given that there has been less than a year of the VNR MPs' drafting, the translation of this plan to effective execution is yet to be observed and therefore is not discussed in this report. This would lead to a more diversified and comprehensive understanding of the areas presented.

Further research should focus on long-term biodiversity outcomes and the socioeconomic impacts of conservation activities on local communities. Continuous monitoring and adaptive management will be essential to address emerging challenges and opportunities.

DRAFT

ANNEXURES

ANNEXURE 01:

Annexure 1: Log of the Interviews Conducted

Date	Interviewee	Information Gathered under the topic
05 Oct 2023	Mr. Asela Wickramasekara - DWC Assistant Range Officer for Vidaththalthivu	<ul style="list-style-type: none"> Existing operational activities, Resource related issues and Operational plans and overall approach to conservation
10 Jan 2024	Mrs. R. Sanjeewani - DWC Assistant Director Marine	<ul style="list-style-type: none"> The Department of Wildlife Conservation overall structure, mandate and how it relates to funding
17 Jan 2024	Ms. Ruchira Karunarithna - DWC Assistant Director of Planning and ICT	<ul style="list-style-type: none"> Operationalization of the Management Plan in the Action Plan Overview on how DWC funding is categorized
30 Jan 2024	Ms. Ruchira Karunarithna - DWC Assistant Director of Planning and ICT and Ms. Aruni - DWC VNR Management Plan - Committee Secretary	<ul style="list-style-type: none"> Management Plans and budget of the DWC VNR management plan and budget process Settlement of capital expenditure
21 Mar 2024	Mr. Asela Wickramasekara - DWC Assistant Range Officer for Vidataltivu and Mr.Thisara Nandasena - DWC Range Officer for Vankalai	<ul style="list-style-type: none"> Implementation of the VNR MP and expectations

Annexure 2: Detailed Explanation of the CF and the WPF

- Consolidated Fund (CF)

This represents the main treasury allowed fiscal transfer for the year. According to the DWC officials every year in November with the budget reading, the ministry and DWC is made aware of the amount to be allocated for it. This may change depending on the actual fiscal collections from tax revenue and other sources each year.

- Wildlife Preservation Fund (WPF)

WPF was established in 1967 under the legal provisions of Fauna and Flora Protection Ordinance (FFPO) with the mandate of supporting wildlife conservation in Sri Lanka.

According to the FFPO the sources of these funds include -

- all sums of money received in respect of licenses and permits issued under this Ordinance or any regulation made thereunder;
- fees and any charges collected under this Ordinance or any regulation made thereunder;
- all sums of money recovered as penalties under this Ordinance;
- all sums of money received as donations for wildlife conservation; and
- any income from the management of any national reserve, sanctuary or other area declared under the Ordinance.

Objectives of WPF, as defined in the relevant regulation made under FFPO, are:

- To enhance the participation of the public in protecting & conserving wild animals.
- Maintenance of Wildlife Protected Areas.
- Payments of rewards to the wildlife officers & public appreciation for their admirable contribution to wildlife conservation.
- Payment of rewards to informants against wildlife crimes.

Annexure 3: The VNR Management Plan Committee

Committee Post	Held by	Name
President / Chair	DWC Director Protected Areas	Mr. Manjula Amararathna

Secretary		Ms. Aruni
Committee member	VNR Ranger Officer	Mr. Thissara
Committee member	Assistant Director for Mannar	Mr. W. M. K. S. Chandrarathna

Annexure 4: Technical Divisions and Supporting Divisions of DWC Head Office

08 Technical Divisions:

1. Planning and Information Communication Technology
2. Natural Resources
3. Elephant Conservation
4. Visitor Services
5. Eco-tourism & Community Outreach
6. Research and Training
7. Protection & Law Enforcement
8. Wildlife Health

03 Divisions to perform the supporting duties of the department

1. Finance
2. Administration
3. Engineering Divisions

Annexure 5: The Theme, Strategy and Activities Mentioned in the VNR MP

Theme	Strategy	Activity
Administration and training	Administration and review assessments	Assessment of number of cadres
	Training	Regular training
		•Diploma Course in Wildlife Conservation and Management
		• Senior Certificate Course in Wildlife Conservation and Management
		• Junior Certificate Course in Wildlife Conservation and Management
	Job Requirements Training	

		<ul style="list-style-type: none"> • Computer Training • GIS Training • Training on identification and census of migratory birds • Training on judicial procedures • Diving / Snorkeling Training • Identification of diseased animals by external features • Scientific Methods of Collection and Storage of Animal Samples
Security and Law Enforcement	Establishment of legal boundaries in protected areas	Carrying out measurements
		Installation of boundary posts at locations where measurement work is carried out
		Re-adjustment of boundaries and re-gazetting of adjusted boundaries
		Acquisition of private lands within the reserve
	Delineation of administrative boundaries of protected areas	As Mannar lies within the district, there are no district boundaries
		Delineation of Mannar Town Region secretariat division boundary with reference to maps
		Delineation of Mantai West regional division boundary with reference to maps
		Preparation of maps of places where wildlife crime has occurred and where more attention should be paid
		Jointly monitor and monitor patrols with the Navy to stop illegal activities (such as engaging in destructive, illegal fishing activities)
	Law enforcement	Law enforcement against encroachment by aquaculture development and mariculture development
		Enforcement of laws to protect wild animals and plants
		Law enforcement against development within 1 mile of the boundary
	Installation of safety related signs, sign boards and signs	Marking of sensitive ecosystems along the sea coast using "Buoys"

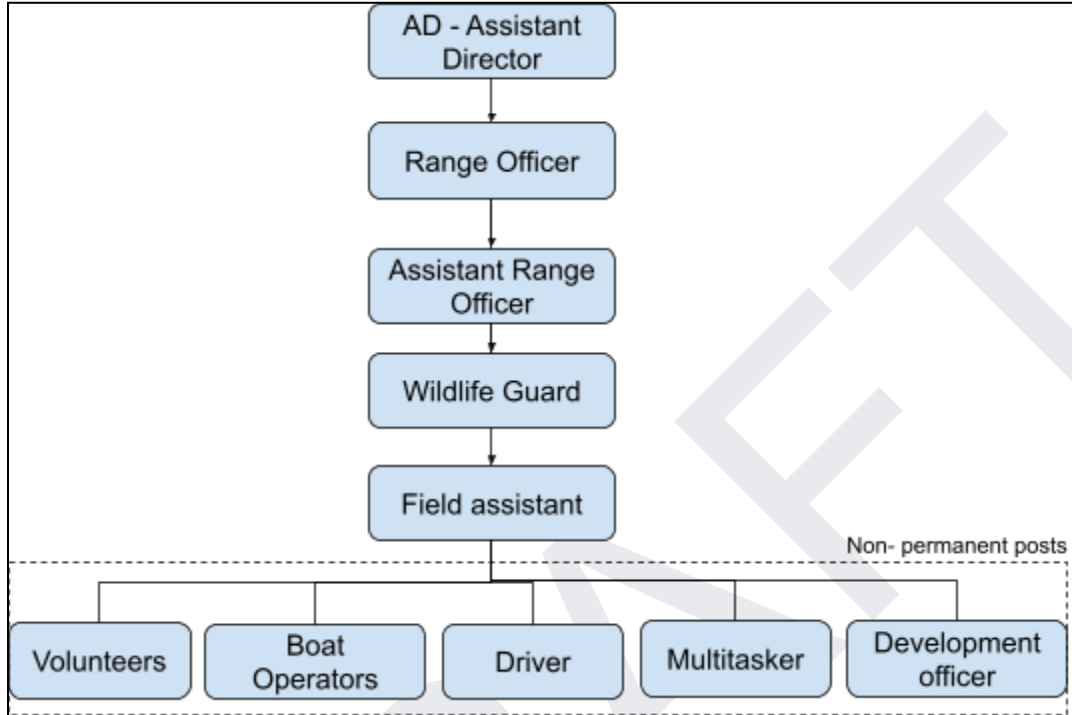
		Installation and maintenance of no-human activity notice boards
	Establishment of communication facilities	Provision of landline phone
	Establishment of firearms	Installation of a firearms holder
Natural Resource Management	Habitat Mapping (Using High Resolution Satellite Image)	Mangrove Distribution Mapping*
		Mapping coral reef distribution**
		Seagrass Distribution Mapping***
	(Habitat Enrichment) Removal of non-native invasive plants	Prosopis sp. Plant Distribution Mapping**** (Using High Resolution Satellite Image)
		Opuntia sp. Mapping Plant Distribution (Using High Resolution Satellite Image)
		Prosopis sp. Removal of plants
	Opuntia sp. Removal of plants	
Depopulation	Depicting areas of interaction	Mapping of areas with negative impacts on the reserve
	Micro planning for villages	Study human resources and physical resources around the reserve and prepare micro plans
	Community participation in conservation	Community awareness programs
		Obtaining conservation information from the community
Wildlife Health Management	Establishment of animal rescue facilities	Provision of traps, nets, snake catching devices, suitable tanks for transporting marine life and aquatic life, smooth ropes required for animal rescue
		Providing transport cages suitable for transporting animals according to animal species
	Installation of temporary maintenance facilities	Provision of necessary cages and tanks for keeping animals
Research and follow-up	Assessing Research Needs	Ecological research
		Research in marine ecology (interactions between marine habitats, organisms and the surrounding environment)

		Sociological research
		Impact on the surrounding community due to the declaration of this area as a nature reserve
	Monitoring plan for protected areas	Ecological research
		Monitoring and evaluating impacts on coral reef expansion
		Monitoring mangrove expansion and impact evaluation
		Monitoring and impact assessment of seagrass distribution**
Monitoring the water quality of the streams and rivers flowing into Vidaththalthivu Nature Reserve		
Physical development activities	Installation of new infrastructure	Administrative buildings
		Staff housing
	Supply of furniture and office equipment requirements	Providing furniture and office equipment to the administrative building after construction
		Furnishing of staff houses after construction
		Vehicles

(Source: Taken from the VNR MPB shared and translated by CSF to English)

Annexure 6: VNR Site Level Presence of the DWC

Administrative Structure -



Non-permanent posts - These are transferable between departments. i.e. DWC driver can be transferred to DFAR driver post

Staff Allocations - Vavuniya Region:

Staff Allocations for DWC Offices in Vavuniya Region

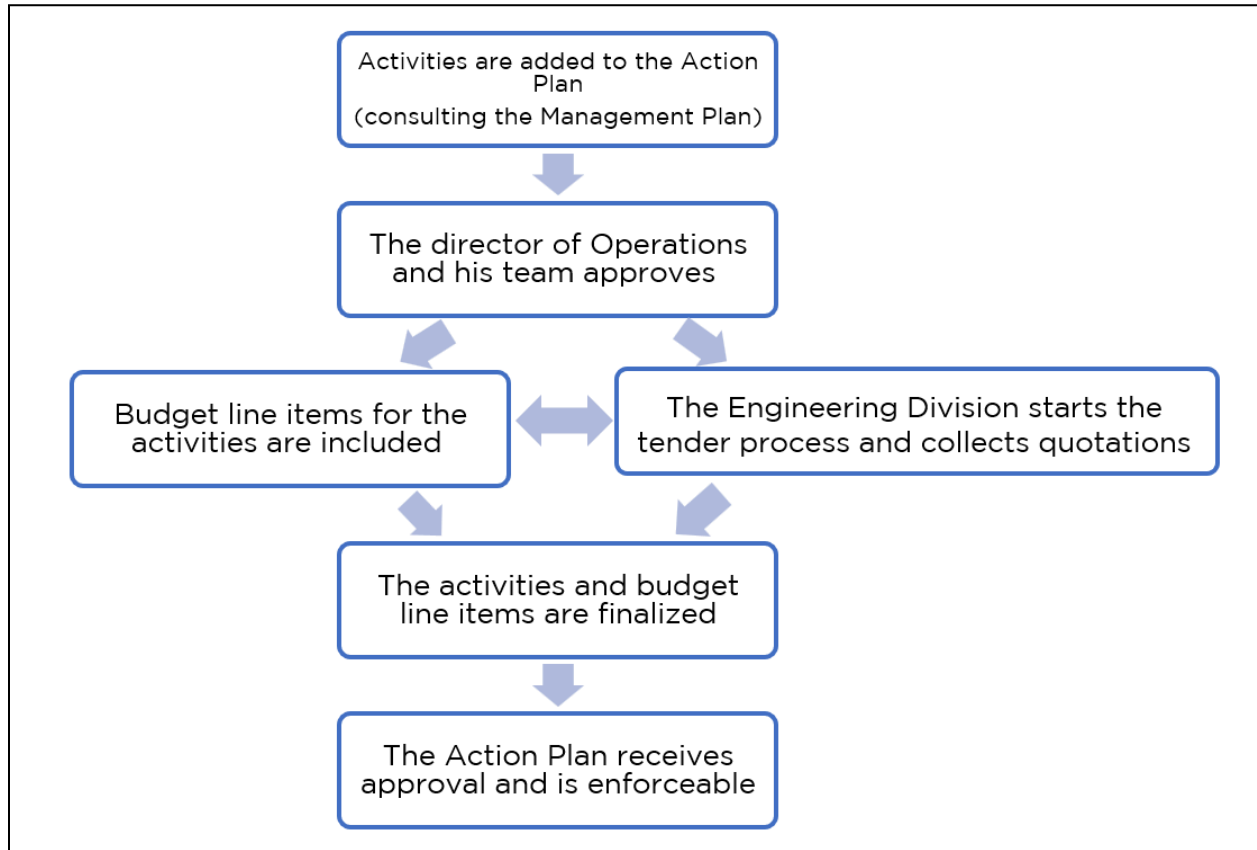
Office	AD	Ranger I/II/III	Assistant Ranger	Wild Guard	Field Assistant	Driver	Multitask	DO	Boat Operator
AD office / Madu	1	2	1	3	1	1	4	1	
Vavuniya Range Office		2		2	3	1			
Padaviya			1	2					
Vankalai		1		1	1		1		
Vidathalthivu			1	1	1				
Thalaimannar		1		2					1

^based on meeting with DWC Vankalai Ranger

- Ranger I/II/III - depends on seniority and years of service.

- DO- Development officer

Annexure 7: The General Process Followed for DWC Action Plans



(Source: Author's construction based off interviews with DWC officials)

REFERENCE LIST

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