

TECHNICAL REPORT / FEBRUARY 2025

Monitoring Plan for the Nature Returns project

MARKO PECAREVIC, LUÍS COSTA, STEFAN FERGER



Monitoring Plan for the Nature Returns project

Guidelines for assessing progress and effectiveness of Nature Returns

FEBRUARY 2025



Marko Pecarević *
Luís Costa **
Stefan Ferger ***

 $^{^{}st}$ Nature Returns, marko.pecarevic@gmail.com

^{**}Nature Returns, luis@nature-returns.eu

^{***} EuroNatur, stefan.ferger@euronatur.org





© Nature Returns, February 2025

This report's information may be copied or reproduced for study, research, information, or educational purposes, subject to appropriate referencing of the source.

This document should be cited as: Pecarević, M, L.T. Costa & S. Ferger (2025). *Monitoring Plan for the Nature Returns project*. Nature Returns, Costa da Caparica, Portugal.

Acknowledgments: This plan has been discussed and ameliorated during a workshop held in Montenegro (November 2024) through the involvement of all partners of the project: Anela Stavrevska-Panajotova, Altin Idriz, Asiem Sanyal, Damir Culjak, Domenika Gugić, Goran Gugić, Ksenija Medenica, Maja Sabljak, Paulo Andrez, Vanda Serpa, Vladyslav Saviak.

Front cover: Monitoring work in the Lonjsko Polje Nature Park, Croatia - monitoring the White-tailed Eagle near Poganovo Polje, by Hrvoje Jurić.

Back cover: Inquires to local communities in Principe Island, Sao Tome and Principe, by Sunday Oluwasegun, Fundação Principe.

Nature Returns is a business for nature project in collaboration with:























Contents

1)	Introduction	5
	Background and context Purpose of the monitoring plan	
2)	Monitoring the narrative (assumptions)	8
	Gathering and assessing evidence	8
3)	Monitoring efficiency	10
4)	Monitoring framework for each site	1′
	Monitoring framework for each site	1
5)	Adaptive management	.14
6)	Resources and links	.17
A	nnexes	
A	1) Monitoring the narrative (assumptions)	
A	2) Monitorina efficiency	



1 Introduction

Background and context¹

Globally, protected areas face challenges in achieving conservation goals due to insufficient funding and limited community involvement. Traditional approaches often exclude local stakeholders from active roles in management and decision-making, relegating them to passive beneficiaries. This project seeks to address these gaps by fostering innovative business opportunities that align with conservation objectives and enhance the livelihoods of local communities.

The project Nature Returns is a legacy project from the MAVA Foundation that aims to test an innovative approach where the creation of business opportunities contributes to the adequate management of Protected Areas, while simultaneously contributing to increased income and quality of life for residents.

The initiative operates across five pilot sites chosen for their biodiversity significance, community engagement potential, and the feasibility of implementing business models: the Lonjsko Polje Nature Park in Croatia, the Pico Island Nature Park in the Azores archipelago in Portugal, the Príncipe Nature Park in Sao Tome and Principe, the Shar Mountain National Park in North Macedonia and the Ulcinj Salina Nature Park in Montenegro. Each site represents unique ecosystems, challenges, and socio-economic contexts, providing a diverse foundation for testing and refining the approach.

The operational framework of Nature Returns² follows a Theory of Change (Figure 1 - Simplified, and Annex 2 - Full) as an archetype to be used at site level for the Protected Areas included in this project, with identified results and assumptions to be tested. This comes with a series of Learning Questions that will allow us to assess how valid and useful this approach can be for the management of protected areas.

¹ The terminology in this document (as well as the overall project) is that of the <u>Conservation Standards</u> <u>4.0</u>.

² Costa LT, S Ferger, V Fernandinova, M Pecarevic, A Sanyal & I Tilders (2024). Nature Returns – a methodology for bringing innovative businesses into Protected Areas. Nature Returns, Costa da Caparica.



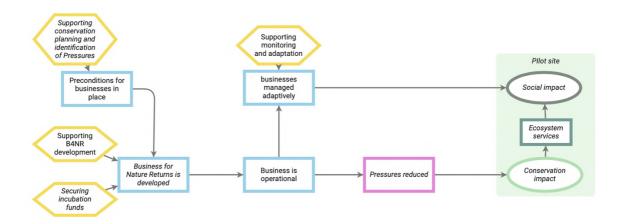


Figure 1. Generic Theory of Change of the Nature Returns project (see Annex for the full framework).

Purpose of the Monitoring Plan

Nature Returns is primarily a learning project, designed to explore and document https://www.innovative-business-models-can-effectively-support-protected-area-management-while-addressing-specific threats-to-biodiversity. The monitoring plan will guide the systematic collection and analysis of data to evaluate the project's outcomes, test key assumptions, and refine-methodologies.

The insights gained through monitoring will contribute to the development of a set of guidelines on how to establish and sustain mutually beneficial relationships between businesses and protected areas (or nature conservation in general). These guidelines aim to serve as a resource for conservation practitioners worldwide.

Specifically, the monitoring plan will set the frame for the project team to:

- Track progress: Monitor implementation of activities on all levels (site and overarching), to allow for assessing efficiency and generate learning
- Assess natural values: Track changes in biodiversity and ecosystem health to understand the impact of business interventions.
- **Evaluate threat reduction:** Measure how business activities mitigate key pressures, such as habitat degradation, invasive species, and unsustainable resource use.
- Analyse business contributions: Examine the social and economic benefits generated, including enhanced livelihoods, community engagement, and local support for conservation.
- **Enable adaptive management**: Enable informed adaptive management at site and at project level (see more in Chapter 5.)



• **Foster learning:** Enable testing assumptions, cross-site learning, and iterative improvements to the approach based on real-world evidence.

The monitoring framework operates on two levels: pilot site and project-wide. At the <u>pilot site level</u>, monitoring focuses on tracking site-specific natural values, pressures, and the outcomes of business interventions, ensuring alignment with local theories of change. At the <u>project-wide level</u>, aggregated data from all sites provides a comprehensive view of overall progress, enabling cross-site comparisons, identifying patterns, and generating insights to refine the approach. This dual-level monitoring ensures both localized relevance and the scalability of findings for broader application. A <u>dedicated folder</u> has been created in google drive, where documents (tables, evidence) will be deposited

Table 1. Nature Returns monitoring system.

Monitoring level and type			Persons involved	Relevant document	
Project level – progress and efficiency	Checking that tasks are completed on time and with optimal use of time and funds	Quarterly	Nature Returns core team	NR workplan	
Project level - narrative	Testing validity of the overall project logic, and developing scalable guidelines and best practices	Yearly	Site teams Nature Returns core team	Monitoring assumptions - evidence table Project steps - reflection	
Site level – progress and efficiency	Checking that tasks are completed on time and with optimal use of time and funds	Quarterly	Site focal point	NR workplan	
Site level – effectiveness	Assessing whether actions and strategies are achieving the desired outcomes and contributing to overall goals	Yearly	Site focal point Site team	Dedicated file will be created for each pilot site.	
Site level – narrative	Testing validity of the logic of business interventions	Yearly	Site teams Nature Returns core team	See section 4 of this document	

³ Access to this folder and other links in this publication is restricted to project members only; for other situations please contact <u>info@nature-returns.eu</u> to request access in View mode.



2 Monitoring the narrative (assumptions)

Monitoring and testing assumptions is a key component of this learning-oriented project, as it allows us to examine the validity of the pathways identified in the overall, as well as in each pilot site's theory of change. Systematically gathering evidence for testing assumptions (e.g. such as how specific business interventions reduce pressures on natural values) ensures that site-level interventions are grounded in reality but also enables the aggregation of findings across all pilot sites. At the project level, these aggregated insights will allow for developing scalable guidelines and best practices, enhancing the broader applicability of the methodology.

Gathering and assessing evidence

In conservation projects, evidence is more than just raw data—it includes information, knowledge, and wisdom that can inform decision-making. Relevant evidence can take various forms, including quantitative data from monitoring activities, qualitative insights from stakeholders, and expert knowledge gained from experience. The goal is to ensure that assumptions are tested based on reality rather than intuition or unverified claims.

Evidence can be gathered from two key domains: the practical domain and the published domain. The practical domain involves direct engagement with stakeholders, such as conducting interviews with communities, practitioners, and entrepreneurs. It also includes reviewing project data and extracting relevant information from field project reports. The published domain consists of research articles, academic studies, and grey literature. In the context of the Nature Returns project, evidence will be gathered mostly from the practical domain.

Once evidence is gathered, it must be critically evaluated to determine its reliability and relevance. This assessment is based on three key criteria: degree of support, relevance, and reliability (Figure 2). The **degree of support** for an assumption is determined by how well the collected evidence aligns with it. It can vary from strong support (++) to refute (-). **Relevance** tells us to which degree the evidence directly addresses the assumption being tested, preventing reliance on unrelated or misleading information. **Reliability** considers the source of the evidence, prioritizing well-documented research, first-hand stakeholder input, and verifiable data over anecdotal or biased accounts. Both relevance and reliability can range from "low" to "very high".



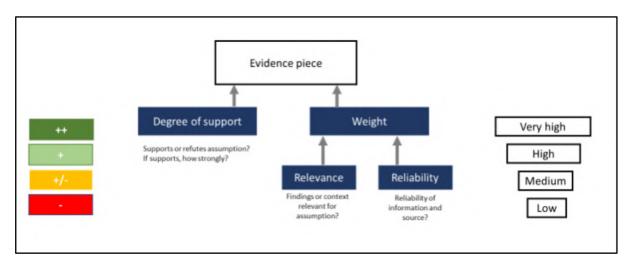


Figure 2. Criteria for testing evidence.

Finally, the quantity of evidence is important. One isolated study or opinion may not be enough to confirm or refute an assumption, so multiple sources and perspectives are necessary to build a strong case (Figure 3). If multiple strong and credible sources support the assumption, confidence in its validity increases. However, if evidence is mixed or weak, the assumption may need to be reconsidered, refined, or tested further before making conservation decisions

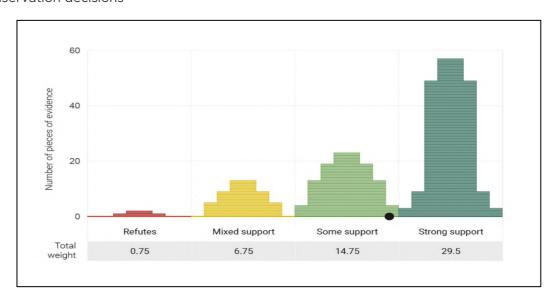


Figure 3. Ziggurat plot indicating amount of evidence (height), degree of support (colour), weight of evidence (width of each pillar) and the average value (black dot). In this example, the evidence provided supports the assumption.

Assumptions will be tested using all of the monitoring data generated through the project (see Annex 2 - Monitoring assumptions), and then compiled using the table - <u>Monitoring</u> <u>assumptions - evidence table</u>.



3 Monitoring efficiency

Efficiency will be monitored on the level of the project, as well as on the level of pilot site. On the level of Nature Returns project will be monitored in two ways. The first is oriented towards tracking the **implementation of the project activities**, as they are defined in the workplan. This serves the purpose of understanding the progress of the project, the reason behind any setbacks, and to ensure efficiency when planning time.

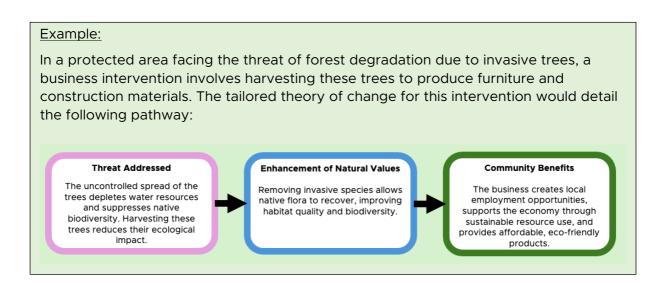
The second is a **reflection on distinct "steps"** in the implementation of the project. A need for this approach arose from the fact that the project activities can be grouped into logical steps that do not have a 1:1 relationship with the work plan but do form coherent units. This level of monitoring will mostly be used to reflect on a particular "step", and generate learnings on how to improve efficiency, and allow for omitting certain steps in any future iterations (e.g. How did the process of organizing a call for business ideas go? Was it necessary to have Conservation Standards basic trainings?"). The relevant table is found on this link.

Efficiency will also be monitored at the level of each site. This should be done at a level that will be informative with respect to the planned activities of each business intervention, while being mindful that it should not pose an unnecessary burden on the site team nor the business (see Chapter 4 for more info).



4 Monitoring framework for each site

The project includes five pilot sites, and a monitoring table will need to be developed for each of them. While it is important that this is tailored towards specificities of each site, care should be taken to ensure that it is possible to find common grouping for the indicators to allow for project-level learning. Below is an example of a possible structure and logic of a pilot site-level intervention.



Steps in developing a site level monitoring plan

Below are proposed steps for developing monitoring plans in each of the pilot site:

1. Develop a theory of change for each business-protected area combination - Each site will require a tailored theory of change to articulate the pathways through which specific business interventions are expected to contribute to conservation goals. For protected areas with multiple businesses, each intervention will have its own theory of change, detailing how it will address specific threats, enhance natural values, and deliver benefits for the community. This is the key step that ensures clarity of purpose and provides a framework for monitoring and evaluating outcomes.



- 2. <u>Define natural values to be monitored</u> Conservation focus on each site will center on identifying the Conservation Targets, meaning the key natural values, such as biodiversity, ecosystem services, or specific habitats, that the collaboration with business aims to protect or enhance.
- 3. <u>Agree on the goals and indicators</u> For each natural value SMART goals and indicators must be defined, based on their Key Ecological Attributes (KEAs). The anticipated change should be visible/measurable during the lifetime of the project.
- 4. <u>Define pressures addressed by each business</u> A critical step is to identify the pressures or threats that each business is designed to mitigate. Understanding these pressures provides the basis for linking business activities to tangible conservation outcomes and ensures alignment with the theory of change.
- 5. Agree on the threat/pressure reduction objectives and indicators Once the pressures are defined, specific objectives and indicators will be established to measure the effectiveness of the business interventions in addressing these threats. Just as in step 3, objectives/indicators must be SMART, while allowing for a change to be visible during the lifetime of the project
- 6. <u>Define business related metrics</u> It should be made clear what are the anticipated benefits for the business, as well as what are the expected human-wellbeing benefits.
- 7. Complete the monitoring plan The final step involves consolidating all the information into a comprehensive monitoring plan for each site. This plan will detail the indicators, data collection methods, responsibilities, and timelines, ensuring a structured approach to tracking natural values, pressures, benefits, as we all business targets.

Content of site level monitoring plan

Monitoring plan for each site should indicate what is being measured, when, why, by whom, and how. It should contain the following information and structure:

A. Site Overview:

- Natural values of focus.
- Specific pressures/threats being addressed.
- Theory of Change summary: How the business intervention is expected to reduce pressures.
- Site specific goals, objectives and indicators



B. Progress and efficiency scorecard

This table should be created/completed once the theory of change has been developed, and all relevant activities have been added. This is an important step in generating learnings about what works, what doesn't, and why.

C. Effectiveness Monitoring plan:

Below is an example of the type of data that should be visible in each site-level monitoring plan.

Aspect	Indicator (include units of measurement)	Data Source	Collection Method	Frequency	Responsible Party
Natural value	Area under natural forest cover	Satellite imagery, field surveys	Remote sensing, fieldwork	Annual	Site focal point
Pressure/ Threat	Area under invasive species	Field surveys	Ranger logs	Monthly	Site focal point
Business	Revenue from pellet industry	Business financial records	Data collection template	Quarterly	Site focal point Business Liaison
	Benefits secured for local community ⁴	Local community	Interviews	Yearly	Site focal point

C. <u>Effectiveness Monitoring table:</u>

The scorecard is specific for each site and made available in an Excel file, to be completed regularly by site managers as for the table above. A template with examples is available here.

⁴ Benefits to local community can also come from the improved state of natural values and/or reduced pressures



5 Adaptive Management

Globally, protected areas face challenges in achieving conservation goals due to insufficient funding and limited community involvement. Traditional approaches often exclude local stakeholders from active roles in management and decision-making, relegating them to passive beneficiaries. This project seeks to address these gaps by fostering innovative business opportunities that align with conservation objectives and enhance the livelihoods of local communities.

Besides evaluating progress and effectiveness of the Nature Returns approach, the monitoring scheme supports an adaptive management process. Adaptive Management is a structured and iterative process of reasoned decision-making, with the aim of reducing uncertainty over time and ensuring the impact and effectiveness of management measures. It is done through monitoring and the use of new evidence.

Adaptive management plan refers to the process by which all project partners systematically assess the progress and effectiveness of their work. This process should be annual, through a partnership meeting of all those involved and the analysis of the monitoring data, to discuss progress, problems and solutions, often with restructuring of the Theory of Change and objectives.

Once all sites start their activities for testing this approach, 4 main steps will be implemented to operationalize the Adaptive Management process in annual iterations:

- Annual report, to describe the progress of the plan in terms of progress and
 effectiveness. The report shall contain the progress of the planned strategies and
 activities and the fulfilment of the intermediate results, based on the monitoring sheet.
 This report should be refined after the evaluation meeting, after adjusting the work plan
 according to the main conclusions of the meeting.
- 2. **Update of monitoring and classification data of progress and effectiveness at the level of the project.** The monitoring form must be completed for the current year and updated by all participants. Monitoring data is interpreted, and progress and effectiveness ratings are assigned. The evaluation sheets are made available on a digital platform through this link.
- 3. Processing of the evaluation in the Theory of Change: The evaluation of progress and effectiveness are entered into the Theory of Change in a color-coded way, showing a visualization of the progress and effectiveness of the plan. Figure 4 shows a simplified example of this evaluation, in which the correlations assumed between results and strategies are questioned.



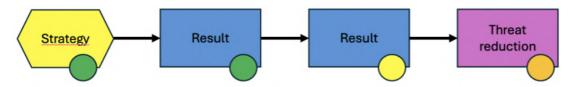
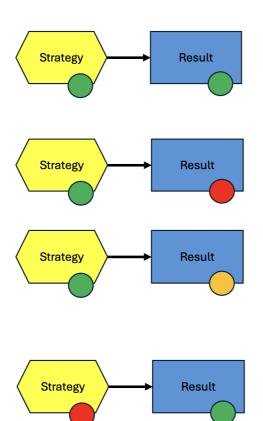


Figure 4. Simplified examples of strategy and results analysis, with actions or decisions to be taken in the adaptive management process. Erro! A origem da referência não foi encontrada.

4. Reflect, adapt, and prioritize. Partners jointly validate and discuss the implications of the above analysis. The overall findings form the basis for adaptations of the plan, from the Vision and Objectives of the Conservation Targets to the restructuring of the Theory of Change and its indicators. Below, some examples of the type of analyses that can be done in terms of interpreting the colour codes on the monitoring sheet for progress and effectiveness, both in the relationship between strategies and results and between intermediate results.



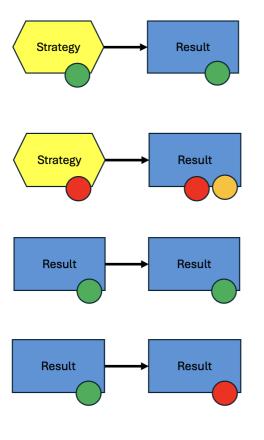
The strategy is being implemented as planned and the results are achieved. The strategy was probably effective. As a result, close this strategy, share the success story as a good example for the future.

The strategy is being implemented as planned, but the results have not been achieved as desired. The strategy is probably not effective. As a result, close this strategy, share the story as an example not to follow, and avoid wasting any more time.

The strategy is being implemented as planned, but the effects are slow and limited. As a result, dedicate yourself more deeply to implementing this strategy to adjust it. Consider increasing efforts or resources if necessary.

There are serious delays in the implementation of the strategy. However, the result is achieved. There seems to be no correlation between the strategy and the result. Therefore, abandon the strategy and use your time for other, more relevant measures.





The strategy is being implemented as planned and the results are achieved. The strategy was probably effective. As a result, close this strategy, share the success story as a good example for the future.

The strategy is not being implemented as planned and the result is not, or is difficult, achieved. If there is no evidence about the effectiveness of this strategy, prioritize this strategy for the near future and measure whether the result is achieved.

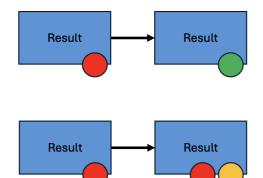
The Result has a causal effect with another Result; The assumptions of the chain of results appear incorrect or incomplete. Thus, it must define other results in the Theory of Change or new Strategies.

The Result has no causal effect with another Result; The assumptions of the chain of results seem correct. Therefore, everything is correct and must be maintained.

The Result has a causal effect with another Result in an incomplete form. Therefore, the insertion of new results or even an additional strategy should be explored. Consider increasing the effort or resources used.

The Result was achieved without there having been a causal effect of the previous Result; The assumptions of the result chain are incorrect, and the first result is redundant and should be abandoned.

The planned changes did not occur, or the causal relationships were incorrect. It is not possible to conclude about the validity of the result chain. Discuss possible changes to the Theory of Change.



Result

Result



6 Resources and links

Assessing evidence

Balance Evidence Assessment Model - Ziggurat Plot Application

- https://tinyurl.com/2ytyy3af

Theoretical background - https://tinyurl.com/fesr73na

Monitoring tables

Project level

- Reflection on project "steps"
- Progress (workplan)
- Narrative (evidence gathering)

Site level

Below are links to folders within which all relevant files will be located:

- Lonjsko polje
- Pico
- Principe
- Shar
- <u>Ulcinj salina</u>

Example of effectiveness scorecard

Annexes

1

Overall Theory of Change (expanded)

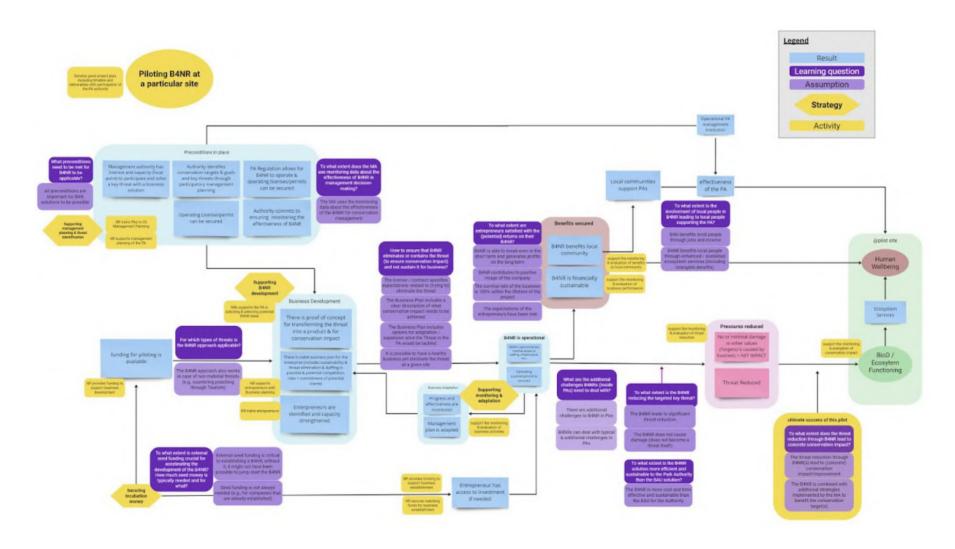
2

Monitoring assumptions





A1 Overall Theory of Change





A2 Monitoring assumptions

Learning questions	Assumptions	Method/source	Monitoring level and type	Period	Indicators
	The expectations of the entrepreneurs have been met	 Questionnaire before and after establishment of B4NR 	Site level – narrative	Before start of B4NLast year of project	Comparison of expectations vs final result
To what extent are entrepreneurs	The survival rate of the business is 100% within the lifetime of the project	Discussion with entrepreneurs	Site level – narrative Site level – effectiveness	 Last year of the project 	• Yes / no
satisfied with the (potential) returns on their B4NR?	B4NR contributes to positive image of the company	 Discussion with entrepreneurs Survey (with consumers / relevant stakeholders) 	Site level – narrative	Before start of B4N	Yes / noDescription
	B4NR can break even in the short term and generates profits on the long term	Discussion with entrepreneurs	Site level – effectiveness	After start of B4NLast year of the project	• Yes / no
To what extent is the involvement of local people in B4NR leading to local people supporting the Protected Area?	B4N benefits local people through jobs and income	 Surveys and interviews with local communities and PA staff Outcome harvesting 	Site level – effectiveness Site level – narrative	After start of B4NContinuous	 No. of local people hired No. of self-employed No. of newly created firms with more than one paid employee



	248 27				
					 % of income increase through involvement in the B4NR Other livelihood benefits, including intangible
	B4NR benefits local people through enhanced / sustained ecosystem services (including intangible benefits)	 Surveys and interviews with local communities and PA staff Outcome harvesting 	Site level – narrative	 After start of B4N Continuous 	 Indication that local people benefit from sustained or restored ecosystem services to which B4NR contributes (e.g. recreation, improved harvest, perception of landscape).
To what extent is the B4NR reducing the	The B4NR leads to significant pressure/threat reduction	 Discussion with the PA partners. Monitoring data kept by partners 	Site level – effectiveness	 After start of B4N Continuous 	 % of threat reduction through B4NR % of threat reduction through supporting strategies What is the supporting strategy (if any)
targeted key threat?	The B4NR does not cause damage (does not become a threat itself)	 Discussion with the PA partners. Monitoring data kept by partners 	Site level – narrative	 After start of B4N Continuous 	 The extent of environmental damage caused by B4N (None, Some, Extensive) What kind of environmental damage (if any)
To what extent is the B4NR solution more efficient and sustainable to the Park Authority than the business-as-usual solution?	The B4NR is more cost and time effective and sustainable than the business-as-usual for the Authority	 Discussion with the PA partners. Financial records from previous years 	Site level – narrative	 After start of B4N Last year of the project 	 Time and funding needed to reduce the threat with B4NR Time and funding needed to reduce the threat with business-as-usual



	To what extent is the B4NR reducing the targeted key threat?	The expectations of the entrepreneurs have been met	 Questionnaire before and after establishment of B4NR 	Site level – narrative	Before start of B4NLast year of project	Comparison of expectations vs final result
	To what extent does the threat reduction through B4NR lead to concrete conservation impact?	The threat reduction through B4NR(s) lead to (concrete) conservation impact/improvement	 Discussion with the PA partners. Monitoring data kept by partners 	Site level – effectiveness Site level – narrative	Last year of the project	 Improvement of conservation status of natural values in areas covered by B4N (YES/NO) Improvement of conservation status of natural values in areas covered by B4N (qualitative)
		The B4NR is combined with additional strategies implemented by the MA to benefit the conservation target(s)	 Discussion with the PA partners. Monitoring data kept by partners 	Site level – effectiveness Site level – narrative	Last year of the project	Contribution of B4NR to conservation improvement (conservation impact vs cost)

