

Ex-post evaluation

Madagascar National Parks Investment Fund

Title	Madagascar National Parks Investment Fund, Phases II and III		
Sector and CRS code	Biodiversity 41030		
Project number	2014 67 489 (Phase II) and 2014 67 786 (Phase III)		
Commissioned by	German Federal Ministry for Economic Cooperation and Development		
Recipient/Project-executing agency	Ministry of Finance of the Republic of Madagascar/Madagascar National Parks (MNP)		
Project volume/ Financing instrument	EUR 10,0 million / budgetary grant		
Project duration	4 December 2014 (financing agreement) - 20 April 2020 (final inspection report)		
Reporting year	2023	Year of random sample	2022

Objectives and project outline

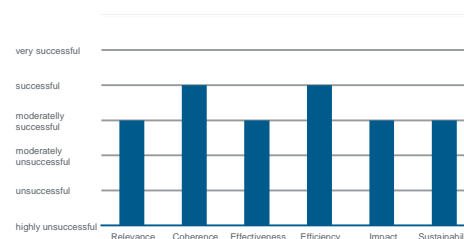
The objective at outcome level was to enable the executing agency MNP to maintain the operational capability of the promoted protected areas in order to contribute to the conservation of fauna and flora in Madagascar at impact level. This was to be achieved through the financing of infrastructure, equipment, local projects and training measures, as well as part-financing of ongoing costs. Contrary to the original design, a large part of the funds went to financing the executing agency's running costs.

Key findings

The project is rated as moderately successful. It provided significant support to the executing agency in carrying out its tasks in the protected areas under its control and maintaining the functionality of the Madagascar protected area system in times of significant financing bottlenecks. However, the objectives at outcome and impact level were only partially achieved.

- Due to an underestimation of the running costs of protected area operation, liquidity bottlenecks and management weaknesses, significant deviations from the original design occurred during implementation. There was no corresponding adjustment of the target system and ambition level.
- By financing running costs, it was possible to make a significant contribution to supporting the executing agency and thereby to maintaining protected area management. At the same time, the reassignment of the budget was at the expense of direct local support for the people living in the surroundings of the protected areas, which is of great importance for the long-term conservation of Madagascar's ecosystems.
- The desired reduction in deforestation rates in the protected areas could not be achieved. However, a comparison with the forest loss rates outside the protected areas suggests that the protection efforts of the MNP have at least slowed down the progressive destruction of flora and fauna.
- With the support of the FAPBM Nature Conservation Foundation, the (partial) financing of protected area management appears to be secured in the medium term. Nevertheless, the durability of the impacts is jeopardised due to the high pressure of use caused by poverty and migration.

Overall rating:
moderately successful



Conclusions

- Flexible adjustment to changing challenges is important.
- Involving the local population in conservation measures and compensating for economic losses through resource conservation is essential for sustainability.
- If local community development is not one of the core competences of a nature conservation organisation, close cooperation with specialised organisations is recommended.
- Global goods such as biodiversity conservation require and justify long-term international commitment.

Ex post evaluation – rating according to OECD-DAC criteria

General conditions and classification of the project

The uniqueness of the biodiversity of Madagascar is undisputed. However, the predominantly endemic flora and fauna can hardly be found outside protected areas. As the use of natural resources intensifies, the pressure on the use of environmental resources continues to increase. According to Global Forest Watch, Madagascar lost a total of 24% of its forest stock, including primary forest, between 2001 and 2020.

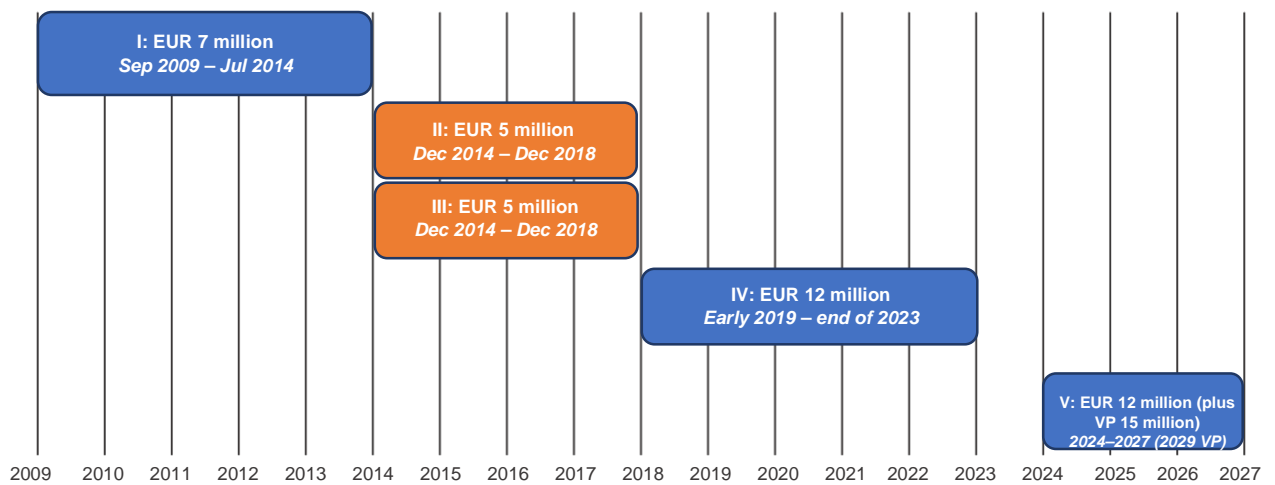
According to a recent study on the economic role of Madagascar's protected areas, Madagascar has globally outstanding natural landscapes that provide ecosystem services at local and national level worth more than EUR 1 billion and are home to unique fauna and flora.¹ The same study also estimates that, in its current state and under the assumption of effective protection, the Madagascar protected area network makes a total contribution to the global economy of USD 3.67 to 17.27 billion (median value USD 7.74 billion) annually. This includes ecosystem services for climate regulation, biodiversity conservation and related cultural services (tourism, research, entertainment). The high value of the protected areas of Madagascar is therefore evident at both an ecological and economic level.

Up to 2008, the sector of nature conservation enjoyed high political priority and was supported decisively by the government. In 2003, the government at the time decided to expand the protected area system from 1.7 million ha to over 3.5 million ha ("Durban Declaration"). The government has transferred to Madagascar National Parks (MNP), an independent association (association de droit privé) in its legal form, the mandate for the administration of 43 terrestrial and marine national parks and protected areas with a total area of around 2.5 million ha. Most of these national parks fall under categories I and II (Stringent Nature Reserve or Wilderness Area / National Park) of the International Union for the Conservation of Nature (IUCN).

FC has been supporting the executing agency MNP in five phases since June 2009 in the development and implementation of integrated park management approaches in the national parks managed by MNP. Figure 1 classifies maturities and financial volumes. Phase I of the project created essential foundations for sustainable park management by implementing an effective and efficient management system (especially finance and staff). Phases II and III, evaluated here, mainly included the financing of running costs of selected protected areas and the head office of the executing agency MNP, in addition to the financing of consulting services, as well as, to a lesser extent, infrastructure and equipment in the protected areas. Phase IV, which is currently being implemented, supports the implementation of MNP's strategic plan in the strategic axes of conservation, management and participative management as well as the development of priority markets (mainly tourism development). Phase V, appraised in 2022, provides for a continuation of the measures from the fourth phase with the same objective.

¹ Source: August 2022, Our protected areas are vital to our development – White Paper resulting from the study on the economic value of protected areas in Madagascar. (<https://www.fapbm.org/app/uploads/2022/12/Our-protected-areas-are-vital-to-our-development-White-paper-EN.pdf>, Accessed on 23/10/2023)

Figure 1: Timing of the various project phases



Source: Own data. The project phases II and III evaluated here are shown in orange.

Brief description of the project

The two phases of the “Investment Fund National Parks” project evaluated here originally involved the financing of infrastructure and equipment as well as training and further education measures, the partial financing of ongoing costs in selected protected areas, the support of the project-executing agency MNP (Madagascar National Parks) in the implementation of these measures by an international consultant and the promotion of small socio-economic projects for the local population in the outermost zones of the protected areas. These measures were intended to enable MNP to maintain the operational capability of the protected areas (module objective) in order to make a contribution to the conservation of the fauna and flora of Madagascar at impact level. The intended target group of the project was the local residents of the protected areas. Contrary to the original design, due to an underestimation of the ongoing costs of the protected area system and the absence of other financing, project funds were reallocated between measures in favour of greater ongoing cost financing.

Map of the project country including project areas



Breakdown of total costs

In EUR million	Phase II (planned)	Phase II (actual)	Phase III (planned)	Phase III (actual)
Investment costs (total)	5.0	5.0	5.0	5.0
Counterpart contribution	0	0	0	0
Debt financing	5.0	5.0	5.0	5.0
<i>of which BMZ budget funds</i>	5.0	5.0	5.0	5.0

Evaluation according to OECD-DAC criteria

Relevance

Policy and priority focus

Lessons learned from global efforts to protect biodiversity show that conservation concepts can only be sustainably anchored if they are implemented in accordance with the interests and with the support of the local population. The model of participatory nature and resource conservation pursued by the project aligns with German DC's objectives both from the time and currently (BMZ 2030 reform concept, BMZ position paper on biodiversity and the Biodiversity Convention). The involvement of local residents was also an integral part of the strategic plan 2012-2016 of the executing agency MNP at the time of project design.

The project was also fully in line with the national priorities, policies and strategies of the Madagascar government, both from the time (third phase of the Madagascar environmental protection programme) and today, which aimed to reduce rural poverty and protect natural resources through effective park management. This was delegated to the executing agency MNP.

Focus on needs and capacities of participants and stakeholders

Madagascar is one of the poorest countries in the world. At the time of the project's audit, the country was in a national and economic crisis that had been going on for years. It is estimated that 90% of the population lived below the international poverty line of USD 1.90 (in purchasing power parity) at the time. The extreme poverty and lack of controls resulted in heavy pressure on natural resources, especially forest and wildlife, which continues to this day and represents a massive threat to Madagascar's unique flora and fauna. More than 80% of its endemic species were acutely threatened at the time of the audit; in addition, the degradation of natural resources had already taken on dramatic proportions (core problem). These problems were to be addressed by the protection and sustainable management of a widespread network of protected areas with close involvement and promotion of the local population.

The project appraisal identified the residents of the Madagascan protected areas as being highly dependent on the sustainable use of natural resources. It also noted that enabling the local population to benefit from the income generated from these resources would create stronger incentives to protect them and an improvement in their living situation (especially stable or rising incomes) could be achieved. At the time of conception in 2014, both phases of the project therefore envisaged strengthening the livelihoods of the local population (target group). The estimated population of 2.4 million people was set to benefit from the protection of natural resources and their ecosystem services, as well as from using the protected areas for tourism. Ecosystem services, such as soil and water protection, are of central importance for the target group's livelihood, which is largely based on agricultural subsistence production. At the time of the appraisal, it was correctly recognised that the protective measures could also lead to significant short-term income losses due to restrictions on use for hunting, logging, collecting medical and edible plants, grazing opportunities and agricultural use. In order to mitigate any negative effects, the project envisaged the direct promotion of small socio-economic projects and the promotion of participatory management structures. Furthermore, the development and implementation of a strategy to support the socio-economic development of the peripheral zones was agreed with the executing agency. At the time of the audit, the cornerstones of this strategy had already been established. The plan was to set up local conservation committees for each protected area consisting of representatives of the local population. Half of the park's revenue was to go directly to the neighbouring communities.

The project was closely aligned with the strategic planning of the MNP and aimed to support MNP in all four of the strategy's action areas – conservation, participative management, priority markets and management quality.

No explicit promotion of particularly disadvantaged or vulnerable parts of the target group was planned at the time of the appraisal; no concrete criteria for the selection of the municipalities to be supported and the socio-economic projects had been developed at this time.²

² The project did not carry out a feasibility study because MNP promotion was to be initiated quickly after the resumption of financial co-operation.

As an interim summary, it can be stated that the original design was geared towards the needs of the parties involved. However, during the implementation phase, there were significant deviations in the project's content focus, which came at the expense of the direct promotion of income-generating measures for the target group (see evaluation dimension *Reaction to changes* and section on *Effectiveness*).

Appropriateness of design

Figure 2 shows the project's Theory of Change (ToC) reconstructed as part of the evaluation.³ Specifically, the following measures were planned at the time of conception: (1) The financing of international consultancy services to advise and support the project-executing agency in the implementation of further project measures, (2) the financing of infrastructure and equipment as well as training and further education measures, (3) the partial financing of running costs in selected protected areas and the newly established departments in the Directorate General, and (4) the financing of small socio-economic projects in the periphery of the protected areas. The consultancy services and partial financing of running costs were intended to strengthen the MNP's capacities in the financial administration and marketing departments, in the hope that this would have positive effects on tourism. Furthermore, training and further education measures as well as the procurement of equipment were set to improve the performance of protected area staff. This, as well as increasing revenues from tourism and the active involvement and promotion of the local population, was set to enable MNP to maintain the operability of the protected areas (ex-post adjusted module objective).⁴ The ongoing operation and supervision of protected areas, with the involvement of the target group in monitoring and other management tasks, as well as the promotion of alternative income generation opportunities, was set to prevent or slow down the progressive deforestation and conversion of land into farming areas. At the overarching impact level, a contribution was therefore to be made to the protection and conservation of Madagascar's flora and fauna in the protected areas supported (adjusted ex post).⁵

The theory of change and target achievement of the project were subject to significant risks that could not be influenced very much. These were already identified during design. These included, and continue to include, political instability, the absence of the state in remote regions, corruption as well as high levels of poverty and internal migration, both of which are accompanied by unchanged high utilisation pressures on the resources to be protected. Another key challenge was and is insufficient financing of the MNP's ongoing operating and staff costs. The Madagascar government did not meet its financing obligations at the time of the appraisal. Looking back, it can be seen that this has not changed until now. Due to the political crisis in Madagascar from 2009-2013, international donors, with the exception of the World Bank, had also suspended their support for several years at the time, so that any resumption of their involvement at the time of the audit was not guaranteed. In fact, the module proposal already referred to "sensitive but time-limited bottlenecks at MNP". The identified risks occurred during the implementation phase and led to significant deviations from the originally planned cost allocation for the various components. From today's perspective, it must be critically stated that the planned content of the project was not adequate for the situation at the time and that the originally formulated ambition level for the objective was also far too high in view of the enormous risks and comparatively low funding. The project documents also lack a description of the relationship between the planned project measures and the indicators formulated for progress measurement in the module proposal. Some indicators were only partially suitable for informing about project progress (see annex).

In addition to the objective, there is an ex-post adjustment of the ambition levels for indicators for the integration of local residents in the management of protected areas and the socio-economic promotion of the local population (see also *Response to changes*). Even if the measures were implemented according to plan, an ex-post adjustment of the level of ambition for these indicators would have been appropriate. In addition, the target level for the indicator "*Annual income from services*" was lowered as part of the evaluation, as the formulated target

³ The targets set out here have already been adjusted ex post and take into account the later budget shifts between the components.

⁴ The module objective was adjusted in the course of the ex post evaluation. The module objective formulated at the time of the appraisal was "*Madagascar's sensitive ecosystems are sustainably protected and valued in the protected areas and their buffer zones, in cooperation with the affected population*". The objective is to be set at the higher impact level. Nevertheless, the level of ambition is too high in view of the prevailing framework conditions and low project funds.

⁵ The project's module proposal contains different information on the impact level. In the body text, the objective is formulated at one point as "Contribution to the conservation of Madagascar's diverse and unique fauna and flora and its use by natural tourism", at another point and in the impact matrix, the objective is formulated as follows: "Sustainable management of natural resources is improved in selected protected areas". Since – contrary to what was planned in the design – significantly fewer funds were put towards the promotion of sustainable management practices and tourism, it seems more appropriate ex post not to include these aspects explicitly in the target formulation. For the ex-post evaluation, the ex-post adjusted objective used in the text above is therefore used and used as an evaluation benchmark.

values would have been unrealistically high from the evaluation team's point of view even if the evaluation had been carried out as planned and also depend significantly on external factors beyond their control.

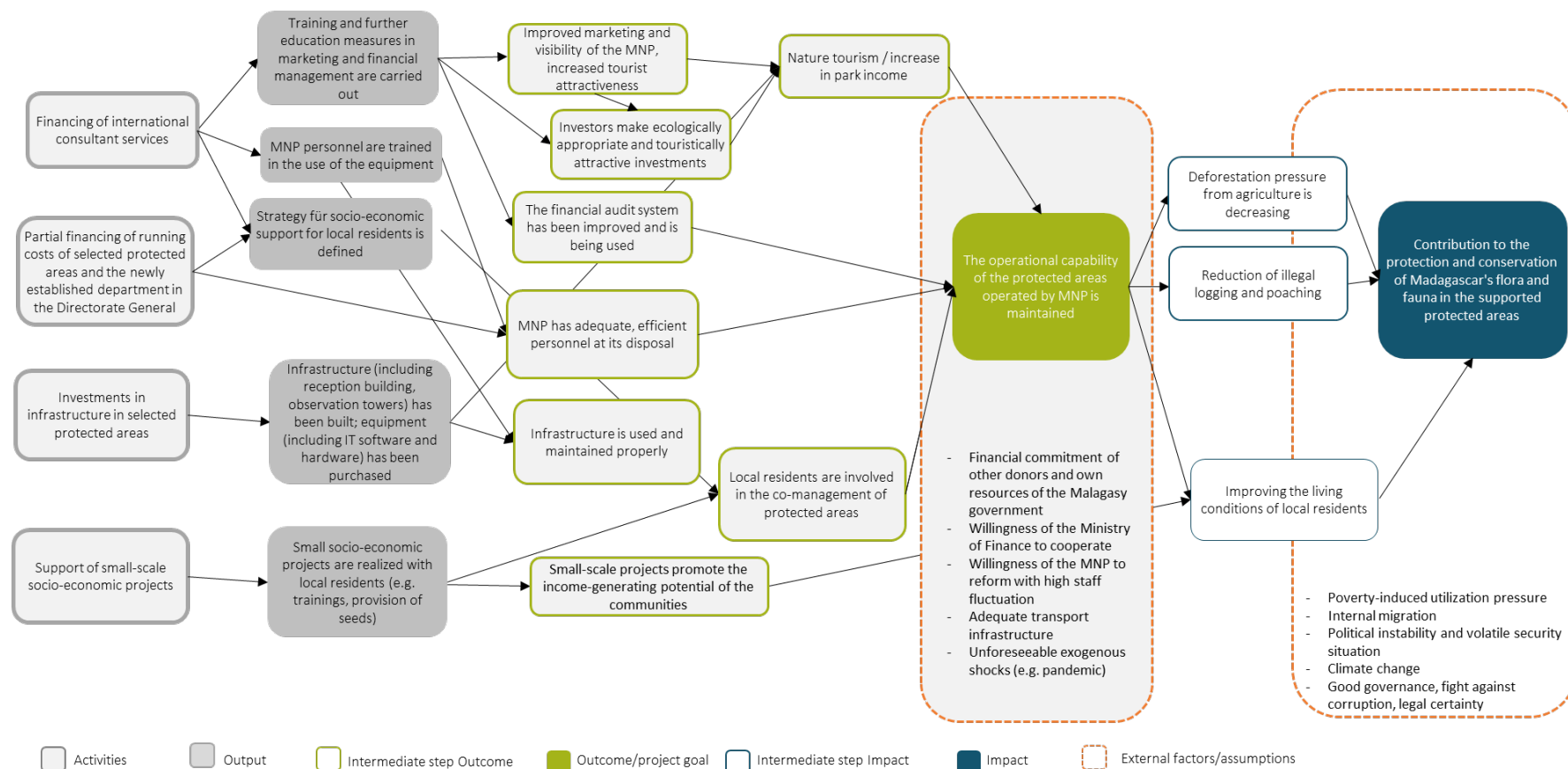
The original design of the project pursued a holistic approach. It was envisaged that the population would participate in the economic benefits of protecting the NPs. Even by today's standards, this remains an appropriate approach to mitigating potential trade-offs between economic development and biodiversity conservation. Specifically, financial participation in park revenues, remuneration for conservation measures (e.g. patrols) and local investments in the areas of education, health, food security and job creation were to ensure the participation of the local population in park development, increase their ownership of their natural resources and, together with the revenue generated from sustainable tourism, foster acceptance of the protected areas.

Response to changes/adaptability

In the planned design and budgeting of the measures to be financed, the project was closely oriented to MNP's five-year strategic plan. As early as the first year of implementation, in 2015, it would turn out that the running costs had been significantly underestimated in MNP's designs. Due to the simultaneous lack of availability of alternative financing sources (below-average park revenues and reduced contributions from other donors), it was decided that the financing of the ongoing operation of the protected areas would be carried out using project funds to a significantly greater extent than planned during the appraisal. Furthermore, capacity constraints on the part of the executing agency impaired the planned implementation of infrastructure and neighbourhood promotion measures, so that the funds provided for these measures were also largely used to support ongoing operations. There was no corresponding adjustment of the target system, indicators and ambition level during the implementation phase.

The reallocation of the budget was intended to bridge financial bottlenecks at the executing agency and thereby maintain its functionality. As a result, the financing of small projects for the promotion of development in the outermost regions was deprioritised as an instrument for addressing the core problem (pressure of use), which comes at the expense of the needs of the target group and the appropriateness of the design. From the evaluation team's point of view, the decision to reallocate funds nevertheless seems to have been the correct and expedient course of action in terms of content, as a significant impairment of the executing agency's functional capacity would probably have had a more severe and direct impact on the overall objective of the project than the reduction of local residents' promotion in the form of small projects.

Figure 2: Reconstructed theory of change of the project based on its design, with ex-post adjusted objectives



Source: Own data

Summary of the rating:

The conservation of Madagascar's flora and fauna is of global importance due to its enormous biodiversity and high degree of endemism. The project's orientation was therefore generally of high relevance. However, the theory of change underlying the project and the associated target system were heavily dependent on external factors that can only be influenced to a limited extent by the project. Although these external factors were correctly identified, they were not sufficiently taken into account in the design. In view of the enormous threat situation and the insufficient financing of MNP, which already existed at the time of appraisal, the level of ambition formulated would not have been realistic even if the design had been implemented as planned. Due to an underestimation of the running costs of the protected area system by the executing agency, liquidity bottlenecks and management weaknesses, there were significant budget shifts between the planned components during implementation. There was no necessary adjustment of the objectives, indicators and ambition levels during the implementation phase, which had a negative effect on the evaluation of relevance. The reallocation of project funds in favour of more financing of ongoing costs is understandable in terms of content as well as developmentally meaningful in view of the problem situation at the time, as this made it easier to ensure that protection measures could be continued. Adaptability is a strength of the project. This is positively weighted in the relevance evaluation. Due to the conceptual weaknesses listed, the relevance is nevertheless evaluated as only partially successful.

Relevance: 3

Coherence

Internal coherence

The FC project was an important component of German-Madagascan development cooperation in the "Management of Natural Resources" programme. The second and third phases of the project evaluated here benefited from the structures and capacities already established in the preceding phase. The project identified and addressed prevailing weaknesses in the park administrations and infrastructure.

The project fits synergistically into the rest of the FC portfolio in Madagascar, albeit differently than planned at the time of the appraisal. In fact, the FC portfolio in Madagascar envisages and envisaged a division of labour between the project evaluated here and the FC participation in the *Fondation pour les Aires Protégées et la Biodiversité de Madagascar* (FAPBM) nature conservation foundation. While the primary aim of the project to be evaluated was to invest in the executing agency's infrastructure and capacity building as well as the promotion of the local population, the FC contributions to FAPBM primarily serve the purpose of covering part of the ongoing costs of the protected area management and thereby securing the long-term financing of the Madagascar protected area system. The income from the investment of the foundation's capital flows into Madagascar's nature reserves for the financing of part of its ongoing operating costs. The FC is by far the most important investor in FAPBM. At the time, the trust's capital stock amounted to USD 52 million. During the implementation phase of the project to be evaluated here (2014-2018), FAPBM had a financing share in MNP of a total of 21% from various sources, making it the second largest financier after the project evaluated here, and therefore also contributed to maintaining the functionality of MNP.

Cooperation with the TC did not take place during phases II and III, as the TC had set different priorities when resuming its activities after the end of the political crisis in 2014. Since the start of planning for phase V of the project, there has been closer coordination between FC and TC in the sector. The TC is currently preparing the implementation of local activities in the vicinity of the protected areas via the TC project "Programme d'Appui à la Gestion de l'Environnement (PAGE) II", which are synergetic with FC involvement in the sector.

The implementation of the project was in line with international development cooperation norms and standards, including human rights conventions, the Convention on Biological Diversity (CBD; especially Target 30x30) and the Paris Agreement.

External coherence

The FC contribution for MNP in connection with the parallel support of the FAPBM environmental foundation was the most extensive donor support that the Madagascar environmental sector has received to date. Projects financed by other donors complemented each other in terms of design and implementation. The project measures complemented and supported MNP's own efforts in the areas of protected area management and income

creation for the local communities and parks. FC is regarded as a lead donor among donors who support the environmental sector, in particular MNP and FAPBM. Supporting MNP in setting up an effective and efficient management system (particularly finance and staff) and providing continuous management advice to MNP headquarters was, according to KfW managers, an important reason for other donors to decide to (continue) supporting the national park system in Madagascar after 2014.

Overall, the financing of MNP during the project period consisted of: own revenue (parking admission fees, concessions for research, film, etc.): 25%, FC investment funds (i.e. the projects to be evaluated here): 37%, other ongoing FC projects: 5%⁶, German debt conversion funds via FAPBM: 5%, FAPBM-PSSE: 4%, World Bank (GEF, IDA loans): 7%, FAPBM trust from capital gains: 12%, EU: 2% and other organisations (UNESCO, NGOs): 2%. After the end of the political crisis of 2009-2014, the majority of MNP's traditional donors were reluctant to recommence MNP financing. Only the World Bank via the GEF provided PSSE and the project with a significant contribution of financing for the protected areas with a total share of 11%. Coordination with other donors represented in the country took place regularly, with the FC being able to report on the progress in management at MNP. Synergies with other donors, especially the World Bank, emerged in the areas of tourism and local development. The World Bank supported MNP in the promotion of tourism concessions for the private sector. During the implementation phase, FAPBM not only contributed to the running costs of MNP, but as part of the "Plans de Sauvegarde Sociale et Environnementale, PSSE", also financed measures for local residents with a volume of around EUR 1 million) These funds came from the World Bank, which at the time preferred to run its financial support for nature conservation in Madagascar through the trust instead of state structures. According to KfW project documents, the implementation of PSSE led to a utilisation of the executing agency's capacities, which is cited as a reason for shifting the budget from local development to financing ongoing costs. Financing local development through PSSE therefore has ambivalent consequences for external coherence: on the one hand, the PSSE measures contributed to achieving the project's objectives and generated synergies accordingly. On the other hand, PSSE capacities of the executing agency were bound and as a result were not available for the planned implementation of the project measures. Since only a smaller proportion of the project funds could have flowed into the promotion of small projects in the peripheral zones due to the need to cover ongoing operating costs, the positive effects of the World Bank's involvement prevail from a coherence perspective.

From the middle of the 2010s, the World Bank focused its support on the agricultural and rural development sectors, and largely left the financing of resource conservation to the German FC and FAPBM. German FC responded to the withdrawal of the World Bank from the sector by including a further four protected areas previously financed by the World Bank in the financing of the project in addition to the 15 protected areas planned for the sector.

Summary of the rating

The project built on the previous phase and complemented the FC participations in FAPBM. Since the TC was not active in the sector during the implementation phase, no synergies could be created between the TC and FC instruments. Nevertheless, the project's internal coherence is rated as successful. Direct cooperation with actors outside of German DC focused on FAPBM, whose financiers include FC, French development cooperation and the World Bank. The measures and objectives pursued were in line with those of the other donors. Overall, the project's coherence is rated as successful.

Coherence: 2

Effectiveness

Achievement of (intended) targets

The outcome-level objective adjusted as part of the evaluation was: The operability of the protected areas operated by MNP is maintained.

⁶ These funds came from the project "Kirindy/Tsimanampesotse eco-region (UAP V) BMZ no. 200166173", which was still being implemented until the end of 2016.

The target achievement at outcome level can be summarised as follows.⁷

Indicator	Status at PA (2014)	Target according to EPE	Actual value at final inspection (2018)	Actual value at EPE
(1a) The threat situation of the 19 protected areas supported by the programme is decreasing	Very high 6% High 28% Medium 39% Low 28%	High 6% Medium 61% Low 33%	Very high 0% High 6% Medium 61% Low 33%	Target achieved: Very high 0% High 0% Medium 72% Low 28%
(1b) The threat situation of all protected areas managed by MNP is reduced	Very high 12% High 30% Medium 37% Low 21%	High 20% Medium 55% Low 25%	Very high 0% High 19% Medium 56% Low 26%	Target achieved: Very high 0% High 14% Medium 58% Low 28%
(2) The proportion of the area monitored jointly with local committees (Comité Locale du Parc, CLP) increases for the protected areas supported by the FC	45%	70%	66%	Target achieved: 70% Target value for the entire protected area system: 43%
(3) The proportion of periphery areas managed by local communities under "Transfer de Gestion" agreements increases for the protected area supported by the FC.	35%	50%	47%	Target not achieved: Target value for FC-funded protected areas not available. In relation to the entire protected area system, the value is 10%
(4) Annual revenue from services remains stable in the medium term and is at least USD 2.0 million	USD 1.5 million	USD 2.0 million	USD 2.3 million	Target not achieved: USD 667,750
(5) Internal audit achieves and maintains ISO 9001 certification	No	Yes	achieved	Goal achieved
(6) A strategy to support the socio-economic development of the outermost regions had been defined by 2015 and is being implemented	0	Strategy has been developed and local residents are being promoted	Strategy has been developed, local residents are only supported in selective areas	Objective partially achieved: supported strategy has been developed, but local residents are only supported on a selective basis

⁷ Indicator 1b was supplemented at the time of the evaluation, as the project financed a significant amount of the executing agency's running costs. For indicators 2, 3, 4 and 6, the target values were adjusted ex post in order to better take into account the design adjustment.

Contribution to achieving targets

The project's objectives were partly derived directly from MNP's management plans during the design phase. Accordingly, the indicators should be interpreted above all as a yardstick of the success of the implementation of the management plan. A direct link to the individual measures of the project can only be established to a limited extent. However, in the absence of more suitable indicators and associated data, these were retained.

As already explained under Relevance, at the start of the project in 2015, it emerged that the current operating costs of the protected areas were significantly underestimated in MNP's strategic design. Due to a lack of alternative sources of financing, the coverage of the running costs of MNP was at risk, which led to a significant redirection of the project. As a result, a large part of the project funds went to financing running costs and therefore to maintaining the operation of the protected area. In addition, capacity bottlenecks at MNP and delays in planning and tenders led to significantly less infrastructure and local development measures being implemented than were planned in the original and later adapted design. The unused funds were also used to support ongoing operations. In the last year of implementation of the project, operation and investments in 15 further protected areas were financed (in addition to the 15 protected areas that were to be the subject of funding from the outset) in order to compensate for the executing agency's liquidity bottlenecks.

The target and indicator system was adjusted ex post to take account of the project's changed priorities and the changed external framework conditions. The adjustments concern all indicators that were formulated in a closer connection with local residents' promotion or their integration into park and peripheral zone management (indicators 2, 3 and 6). Since only approximately 1% of the project funds were put directly towards the promotion of measures for local residents due to the re-allocation of funds during the implementation phase, the target achievement level for these indicators was reduced accordingly. The same applies to the income development indicator.

When assessing the contribution of the project, it should be noted that the achievement of the objectives of the selected indicators depends on a number of different factors, including those clearly outside the scope of the project and, in some cases, also of the executing agency. Since a large part of the project funds went to financing the executing agency's running costs and consulting services, the project's contribution to the achievement of the objectives is sometimes only indirectly or not at all determinable and quantifiable.

Indicators 1a and 1b: The values for measuring the threat situation of the individual protected areas have been calculated by MNP for almost 20 years using the internationally recognised Miradi tool.⁸ Two indicators are used to determine the threat situation: Indicator 1a provides information on the situation in the 19 protected areas that were directly supported by the procurement of equipment as part of the project. Indicator 1b, on the other hand, measures the threat situation of all protected areas (currently 43) managed by MNP. The separate assessment of the threat situation in the entire protected area system appears appropriate and was included ex post as an additional indicator, because a significant proportion of the funds went into the financing of running costs at the central level of MNP due to the redirection of the project and therefore affected the entire protected area system. When interpreting the results for indicators 1a and 1b, some consideration has to be made to the fact that the assessment of the threat situation using the Miradi tool is carried out by the individual protected area administrations and the stated value is not checked by an independent body. Furthermore, the project documents note that the method of calculation has changed during the observation period (without more precise information on how exactly these changes looked like) and that previous values are only partially comparable with current values. In the absence of alternative data (which is determined, for example, by means of the *Management Effectiveness Tracking Tool* of IUCN), these are nevertheless used as part of the evaluation.

For both indicators of the threat situation in the protected areas, the values achieved at the time of the evaluation were higher than those at the time of design and are therefore considered to have been achieved. According to

⁸ The tool was developed by The Nature Conservancy (TNC) for managing nature conservation projects. A module of the tool serves to identify and classify threat factors for protected areas. Further information on the Miradi tool can be found at <https://www.miradishare.org/ux/home> (last accessed on 07 December 2023) and at <https://conservationstandards.org/library-item/threats-and-actions-taxonomies/> (last accessed on 07 December 2023).

the executing agency, the threat situation improved continuously from the start of implementation in 2014 until 2021. While 42% of protected areas under MNP administration were still exposed to a high or very high threat level in 2014, this figure was 14% last year (indicator 1b). At the same time, the number of protected areas with a low threat level has increased slightly. The threat situation in the directly supported protected areas is similar. The proportion of protected areas with a high or very high threat level has fallen from around one third to 10%.

The threat situation of protected areas depends on various factors. It is plausible to assume that the management of the protected areas is an important determining factor here. In view of the fact that a significant share of the costs of MNP (and therefore also of the protection activities, e.g. through the financing of patrols) was covered by the project funds during the implementation period at 37%, it can be plausibly inferred that the project made a relevant contribution to improving the threat situation of the protected areas. In addition, the project promoted further training in areas such as fire-fighting and biomonitoring, and financed the purchase of equipment (including motorised vehicles, solar systems and generators, and water bags for fire-fighting), which are also directly related to protection efforts.

Indicator 2: Long-term conservation of protected areas is only possible in cooperation with the local population. One instrument is the creation of income opportunities and jobs in park management, which is also an integral part of MNP's strategic plan. In addition, the Code des Aires Protégées (COAP) defines the participation of local residents in the protection and management activities in a legally binding manner. The MNP management plan⁹ (2012-2016) relevant at the time of the conception provided for the establishment of local conservation committees (Comité Locale du Parc, CLP) consisting of representatives of the local population in each protected area. These, in turn, should make up at least 65% of the members of the management committee of each protected area. The members of the committees are to participate in patrols to protect the parks as well as in marking and maintenance work.

By the end of the project phase, all protected areas should be managed by such a management structure according to the original design. The strategic plan also stipulated that 50% of the park revenues would be made available to the CLP, from which small projects for local socio-economic development would be financed. The target value of 95% adopted from the management plan at the time of conception was reduced to a more realistic, but still very ambitious, 70% at the end of the implementation phase. One reason for the adjustment was the recognition that some areas with special protection status cannot be monitored by the local population. At the end of the implementation phase in 2018, the value was 66% and therefore close to the target. Following the initial successes, the approach to participatory management of protected areas was severely affected by several factors in the following years. On the one hand, the protected areas' revenues fell drastically because visitor numbers virtually fell off a cliff following the travel restrictions put in place during the COVID-19 pandemic. According to its own information, MNP was subsequently unable to provide funds in the planned amount for community controls, as MNP's financial situation was assessed as so precarious that the main focus was on the survival of the institution and ensuring its continued operation. The interest in joint inspection visits by members of the neighbourhood committees was subsequently noticeably reduced at times, on the one hand due to the fact that the very poor population perceived per diems for joint inspections with MNP as being too low in light of alternative income generation opportunities, e.g. in agriculture or through activities for other organisations, and on the other hand due to overall reduced funds. MNP also states that when members leave committees, it is difficult to find successors who showed interest in this activity. This last point could not be verified during the target group discussions on site, but the complaints about the inadequate remuneration of the joint inspection rounds could be verified.

Since 2021, the situation has eased somewhat, so that the proportion of areas monitored by CLP was 70%, and therefore the target can be regarded as achieved at this point in time. However, it should be noted that this value only relates to those protected areas that were promoted directly through the phases evaluated here and the follow-up phase of the project. Based on the entire protected area system under MNP's responsibility, the share was only 43% in 2021, according to MNP.

The project's contribution to target achievement for indicator 2 cannot be quantified. However, the financing of ongoing costs of MNP – which also includes the remuneration of local residents for participation in conservation measures – and the financing of training and further education measures as well as consultant services – can be used to indirectly infer a connection between target achievement and the project measures.

⁹ The management plan is derived from the overarching strategy paper "Plan strategique de gestion du reseau d'aires protegées de MNP 2014-2024".

Indicator 3: Another integral part of the strategic goal of “co-gestion”, i.e. joint management of the protected areas with the local population, is the transfer of management responsibility for the periphery areas of protected areas to the local population within the framework of “Transfert de Gestion” agreements. However, this indicator is hardly suitable for measuring the project or executing agencies' activities, as the agreements are concluded between the administrative units (municipal administrations of the neighbouring communities) and the committees set up with the support of MNP. Madagascar National parks has no direct influence on the conclusion of such contracts. In spite of this, it can also be noted here, in the same way as for indicator 2, that the original target level was set at an unrealistic 95% and had already been lowered to 70% at the time of the final inspection. Here, too, it turned out during the implementation phase that not all peripheral areas of the protected areas are suitable for transferring resource management to the local population. This resource management mainly involves agricultural use of the peripheral zones through fruit production and rice cultivation, sometimes with irrigation and pasture use. At present, the target value for the entire protected area system is 10%. This is far from being reached. The value is presumably higher for the protected areas directly supported by FC funds, but disaggregated figures to verify this assumption were not available at the time of the evaluation. Failure to meet this target appears to be due to overly optimistic planning and insufficient financial resources for the local population as well as false expectations and misunderstandings between MNP and the local population. According to MNP, the local residents' expectation was that the transfer of the rights of use for peripheral zones, which give the local residents more legal security for agricultural and pasture use, would simultaneously involve the use of resources in the protected areas, but this has not been budgeted for. The local residents also expected a material consideration for taking on duties and obligations in the context of periphery zone management. However, MNP does not provide any further funds for this, with the exception of the moderate participation in the park admission fees, the rationale being that the population would benefit from sustainable periphery management in the medium term. With regard to the economic situation of the majority of the Madagascan rural population and, above all, the local population of the often remote protected areas, the assumption that the population are already including for future yields and improvements today is too optimistic.

Since only a small proportion of the FC funds went directly into the planned local community promotion, the project's contribution to this indicator, as well as its potential influence, can be assessed as low.

Indicator 4: Revenue increased after 2014, but to a much lesser extent than hoped at the time of conception (the original target was USD 3.0 million). The increase in revenue was due to the increase in admission fees for foreign tourists, but the planned uptick in tourist numbers was not achieved. Revenues from tourism concessions were also significantly lower than expected, due, among other things, to delays in the clarification of the legal regulations on the award of concessions and to the reluctance of private investors in view of the country's political risks. In 2018, revenues meanwhile amounted to USD 2.3 million and therefore reached their highest value in the period under review in this evaluation (2014-2022).

As a result of the COVID-19 pandemic, international tourism in the country came to a standstill; correspondingly, income from admission fees fell. Visitor numbers have been slowly increasing again since 2022. For 2022, MNP recorded 115,457 visitors (for comparison: in 2019, the number of park visitors was as high as 230,000), which resulted in revenue in the amount of USD 667,750. This figure is still well below the target of USD 2.3 million per year. However, it seems realistic to assume that revenues will continue to increase over the next few years and the pre-pandemic level can be reached. The effectiveness evaluation takes into account the fact that since January 2020 the failure to achieve this objective is mainly due to external factors beyond the control of the executing agency, and the indicator for the stalled three years is not a suitable measure of the success or failure of the project. Accordingly, this indicator is given a lower weighting in the evaluation.

Indicator 5: The goal of certification of the internal audit in accordance with ISO 9001¹⁰ was achieved and has resulted in the interest of other donors in cooperation with and support from MNP being revived. With the introduction of the new accounting software SAGE in 2016, it was possible to further improve the control of protected areas and financial management. A contribution to target achievement can plausibly be attributed to the consulting services financed from project funds in the financial management department.

Indicator 6: A strategy for promoting local residents was developed as planned. However, implementation in the form of FC-financed local community measures lagged far behind the original design. The financial gap of MNP to cover ongoing costs and the lack of implementation capacities at the executing agency are cited by KfW

¹⁰ ISO 9001 is an internationally developed, cross-industry standard for process-oriented quality management systems. It sets out all the requirements that companies must fulfil in order to obtain a globally recognised certificate.

managers as the key reasons for the significant target-actual deviation in local population promotion. At present, there is not yet sufficient promotion for local residents.

The strategy has been under revision since 2020 in order to meet the changed current challenges based on the experiences gained. One of the most important elements of the new strategy is to move away from determining the intervention areas based solely on their geographical location and to include local knowledge of the level of the acute threat situation, such as migration pressure, illegal logging, etc. On the other hand, the beneficiaries of the support measures are being redefined. Instead of municipal and regional public structures, associations, NGOs and organised user groups, local population measures are to be implemented in the future, primarily to support vulnerable households. The aim is to promote a whole package of measures aimed at agricultural projects along the entire value chain at household level, including at municipal level projects for the promotion of health and education.

The fact that the new strategy has not yet been adopted is probably due to the fact that the appointment of a new Director General to the Supervisory Board has not taken place for about two years due to political influence by the government, which is another indicator of the low importance of nature conservation in the current government. In addition, the position of head of the Ministry of the Environment, which is important for the sector, has already been re-appointed several times during the current legislative period.

In the Relevance section it has already been mentioned that no explicit promotion of vulnerable groups, in particular women, was included during the project appraisal. Accordingly, no follow-up was carried out for these groups. In the vicinity of the protected areas, the population can generally be classified as very poor, with no distinction between the sexes. In terms of gender ratio, MNP currently has 87% male and 13% female staff. However, management is working to give women more opportunities to actively participate in the protection of biodiversity. Therefore, greater involvement of women in the activities is anchored in the new strategic plan. In addition, a gender strategy is currently being developed to anchor the gender equality efforts at MNP in the long term. There are currently 754 committees in the protected areas, in which around 6,500 people are active. There are only about 500 women in the committees.

Quality of implementation

The annual accounting reviews carried out by the auditor as well as physical use audits as part of the progress review missions and the final inspection on site did not reveal any indications or evidence of misuse of funds. According to interviews, the executing agency and the implementation consultant (IC) provided sufficient and qualified staff to carry out the project. Cooperation between the IC and executing agency was also largely seamless. Overall, the quality of management and implementation by the executing agencies/partners is rated as positive.

Unintended consequences (positive or negative)

The adverse impacts on environmental and social issues caused by the project are estimated to be minimal, as the investments were predominantly made at existing park station locations and are limited to the local area. No special countermeasures were required; basic standards were taken into account in the detailed planning of the state-of-the-art infrastructure. No other adverse unintended effects are known. The same applies to any positive unintended effects.

Summary of the rating:

A mixed picture arises with regard to the achievement of module objectives. The threat situation of the protected areas directly supported by FC funds and those of the entire protected area system has improved since the start of the project's implementation. This is a considerable success, especially in view of the prevailing framework conditions. Since the project financed a significant part of MNP's running costs, it can be assumed that it played a role in achieving this. The project was also able to contribute to the further professionalisation of MNP and improved financial management, which is reflected, among other things, in the successful certification in accordance with ISO 9001.

On the other hand, the objectives related to active local resident promotion could not be achieved. The same applies to the objective of income development from admission fees and other services. However, the project's scope to have a direct influence on these objectives was only limited, in particular due to the deviations made

from the design and the focus on financing running costs. Accordingly, these indicators are given a lower weight in the effectiveness evaluation.¹¹The effectiveness is rated as moderately successful.

Effectiveness: 3

Efficiency

Production efficiency

The total costs of the project amounted to EUR 9.9 million and were therefore roughly in line with the planned figures. The largest share of the costs was borne by the executing agency MNP. Only 9% of the budget had been planned to be spent on this at the time of the appraisal. During the adjustment of the design one year later, this proportion was understandably reduced (see Relevance and Effectiveness) to around 33% adjusted upwards to reflect the changed situation. In the end, almost 46% of the project's expenditure went to these items, while savings were made on all other types of expenditure. The FC was almost the only financier of MNP from 2014 onwards, as neither the Madagascar state nor other donors were willing to make their intended contributions to MNP expenditure and tourism revenues were significantly below expectations (cf. Coherence and Effectiveness sections).

At the same time, the funding, which had been planned for a term of five years, had already been spent after four years, meaning that the follow-up financing of phase IV had to start one year earlier than planned.

The scope and costs of the implementation consultant's services were around 9% below the originally planned amount of EUR 2.5 million, but corresponded roughly to the share envisaged in the planning adjustment in 2015. With a cost share of 22% of the total FC costs, they are high compared to similar projects, but still appropriate in view of the complexity and requirements. The executing agency's advice in the area of financial planning and organisational development was important in order to make MNP attractive again to other donors who had withdrawn during the political crisis. Based on MNP's total budget during the project period, expenditure on consulting services accounted for around 8% of MNP's total costs.

At EUR 141,129, only 13% of the project funds provided for at the time of the appraisal and in total only slightly more than 1% of the total project funds were used for local community measures. This was already evident in the planning adjustment in 2015, when MNP's lack of implementation capacities became clear and the consultant had also not demonstrated satisfactory performance in this area.

Table 1: Presentation of planned and realised costs for the individual measures

Measures	Target at appraisal 2014	Target at appraisal in %	Target after adjustment 2015	Target after adjustment in %	Actual after implementation	Actual in %	Actual/target in %
Salaries	1,800,000	18	1,295,870	13	1,357,065	14	105
Other ongoing costs	900,000	9	3,269,964	33	4,554,311	46	139
Equipment	1,800,000	18	2,399,024	24	1,293,233	13	54
Infrastructure	1,900,000	19	674,882	7	283,061	3	42
Local community measures	1,100,000	11	175,230	2	141,129	1	81
Consulting services	2,500,000	25	2,185,030	22	2,226,818	22	102
Bank charges							
Total	10,000,000	100	10,000,000	100	9,855,617	99	

Source: KfW's final inspection report for phases II and III (own presentation)

¹¹ The negative consequences of the reallocation are reflected in the Relevance evaluation.

Allocation efficiency

The redirection of the project's planning and the corresponding reallocation in favour of financing running costs made sense from an allocation efficiency perspective. Initially, there was an unmet financing need for ongoing costs, which are of great relevance for maintaining the management of the protected area. At the same time, according to the project managers, originally planned financing requirements were forgone or could not be implemented as planned due to a lack of capacity at the executing agency (and therefore also insufficient planning). On the one hand, the salary costs of MNP, whose partial financing was provided for from project funds, were lower than originally estimated due to unperformed salary adjustments and new hires. On the other hand, it was already clear at the start of the project that the implementation capacities of MNP would not be sufficient for the planned infrastructure and local resident promotion measures, and therefore the funds planned for these items could not have been provided to the intended extent. An alternative use of the funds – for example for financing infrastructure – would therefore probably not have been very expedient.

The financing of running costs made an important contribution to securing the executing agency's functionality, with positive consequences for the protective effects achieved. At the same time, the re-allocation of funds had a lesser impact than planned on conservation and socio-economic development in the outskirts of the protected areas than it might have had if greater promotion of local residents had taken place. However, according to the assessment of the evaluation team, the first-mentioned effect is the most dominant (see also Relevance).

The use of public funds for the conservation of biodiversity in Madagascar appears justified due to its benefits for the public good (e.g. CO2 storage, protection of endemic species).

Summary of the rating

Due to the reallocation of project funds for financing ongoing costs, there were significant deviations between the planned and actually realised expenditure for the individual components. Hardly any productive investments were made. The consequences of the redirection of funds for allocation efficiency cannot be determined. In summary, the efficiency of the project can still be classified as successful.

Efficiency: 2

Impact

Overarching developmental changes (intended)

The impact objective adjusted as part of the EPE was to contribute to the protection and conservation of Madagascar's flora and fauna in the protected areas supported. The development of the deforestation rate in the protected areas managed by MNP is used as an indicator for measuring target achievement. This indicator is generally well suited for drawing conclusions about the state of ecosystem functions as well as fauna and flora.¹² From today's perspective, however, it seems expedient to compare the deforestation rate in the protected areas managed by MNP with the deforestation rate for all forests throughout Madagascar and for those protected areas that are not managed by MNP for the purpose of evaluating the achievement of the target.

¹² In its design, the project adopted the objective at DC programme level and the associated indicators. Three of the original four indicators were removed as part of the ex post evaluation because they were either not related to the project's measures, could not be clearly operationalised and/or there was no data available that would allow statements to be made about target achievement. The formulation of the indicators "Implementation of legal rules and regulations" and "Population's perception of forest rights" does not allow for an objectively worthwhile survey. Neither MNP nor the Madagascar government collected suitable data for the basic project-relevant indicator "Increase in incomes of local households" that could have been used for measurement. In addition, the HH income appears unsuitable for measuring the sustainable management of natural resources, as the HH income in rural areas comes from a variety of sources. An increase in HH income can be due to improved agricultural production in the periphery of the protected areas, but also to illegal abstraction of resources from these protected areas.

Indicator	Status PA	Target value at PA	Actual value at final inspection	Actual value at EPE
The annual deforestation rate in the supported protected areas is declining.	Average deforestation rate from 2001-2013: 0.37% Deforestation rate in 2013: 0.97%	Annual reduction less than 0.5%.	Average deforestation rate between 2014-2018: 0.8%	Average deforestation rate between 2014 and 2021: 0.67%

Remarks: The values reported here ex post for the time of the appraisal and final inspection deviate from those in the respective project documents and were reconstructed on the basis of the Vahatra Association dataset. The reason for the discrepancy is probably due to the fact that the project documents were based on different data sets.

In order to measure target achievement, satellite data was evaluated on the basis of two different datasets (WDPA and Vahatra) as part of the evaluation and therefore forest coverage and the annual loss of forest coverage over the period 2001-2021 were calculated in all terrestrial protected areas of Madagascar as well as across Madagascar as a whole.¹³ In line with the definition of the Food and Agriculture Organization of the UN (FAO), forest areas are understood here as areas with treetop coverage (or a corresponding stock level) of more than 10% and a minimum size of 1 ha.¹⁴ The trees growing here should be able to reach a height of at least five metres.¹⁵ A comparison of the WDPA dataset with that of the Madagascar Vahatra Association revealed some methodological limitations of the WDPA dataset, which are presented here for transparency. For some protected areas, the spatial dimensions are inaccurate, with the consequence that statistics on forest coverage or loss of forest coverage based on WDPA data may also include areas that may actually lie outside the protected area boundaries. Assuming that deforestation outside protected areas tends to be higher, the deforestation rates in protected areas with the WDPA dataset would therefore be overestimated. Another methodological weakness of the WDPA data is that some protected areas overlap partially or completely. As a result, the areas, area losses and similar variables of several protected areas cannot be easily added up, or the average cannot be formed. For this reason, results based on Vahatra data are presented below.¹⁶ As a further limitation of data interpretation, it should be noted that the underlying data only shows gross deforestation. Any increase in forest areas due to afforestation measures and natural regeneration is not shown. However, since no afforestation measures were supported under the project, this is not likely to have any significant effects, at least for determining the project's contribution to achieving the objectives.

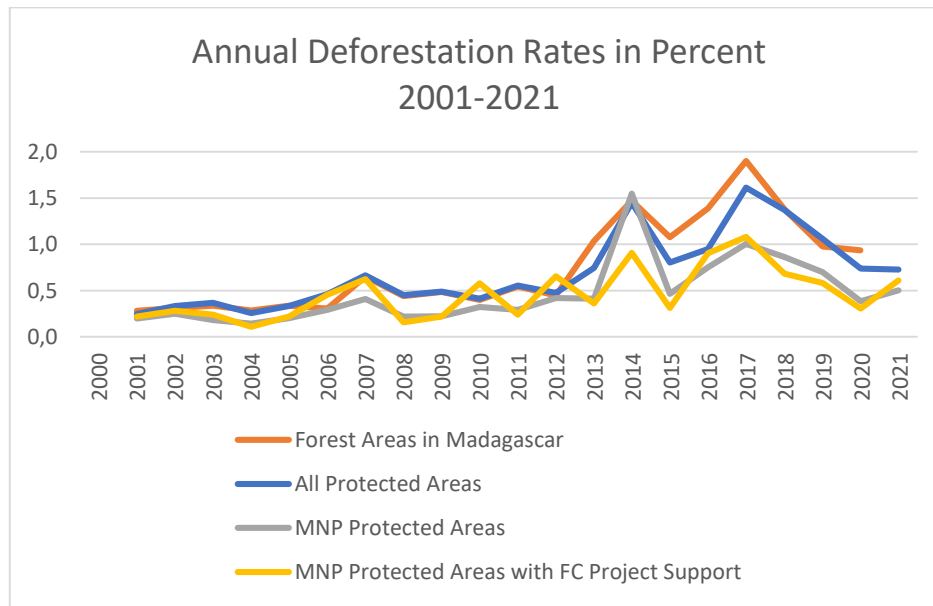
¹³ The satellite data was evaluated by Florent Bédécarrats from the Institut de Recherche pour le Développement [IRD] using the open source code of the Mapme initiative. Detailed documentation of the analysis can be accessed at the following URL: https://fbedecarrats.github.io/compute_forest_cover_change_Madagascar/ (last access: 24 November 2023).

¹⁴ FAO. 2000. Comparison of forest area and forest area change estimates derived from FRA 1990 and FRA 2000. Forest Resources Assessment Working Paper 59. Rome. <https://www.fao.org/3/ad068e/AD068E00.htm#TopOfPage>

¹⁵ According to this definition, forest areas can consist either of closed forest formations in which trees with different heights and levels of undergrowth cover a large part of the soil, or open forest formations with a continuous vegetation cover in which the treetops represent more than 10% of the area. Young natural stocks and all forestry plantations that have not yet reached a treetop density of 10% or a tree height of 5 m, as well as areas that are normally part of the forested area but which are currently unforested due to human intervention or natural causes, but which are likely to re-develop into forest, shall also be taken into account as forest areas.

¹⁶ Analyses based on the WDPA dataset yield the same qualitative results as those presented below.

Figure 3: Annual deforestation rates within and outside the Madagascan protected areas



Source: Own presentation based on satellite data evaluations.

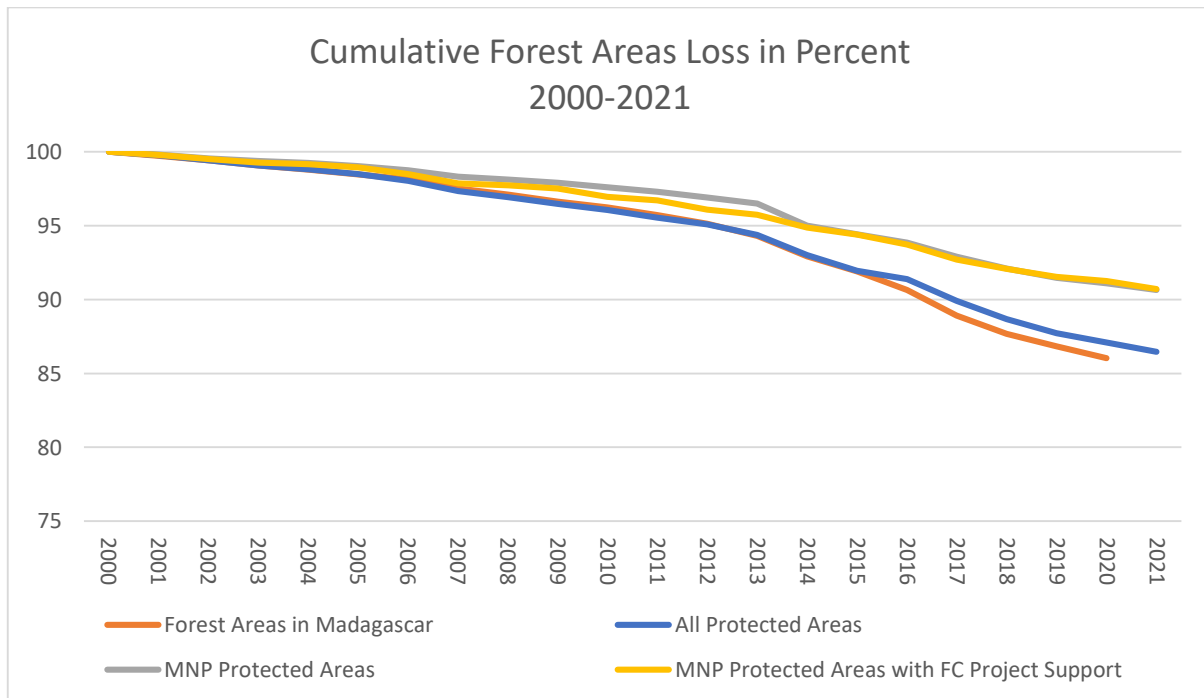
Figure 3 shows the development of the annual deforestation rates, expressed as a percentage, over the period from 2001 to 2021 for a) all forest areas in Madagascar, b) the forest areas of all protected areas, c) the forest areas of the protected areas managed by MNP and d) the forest areas of those MNP protected areas that were directly supported as part of the project. A look at the deforestation rates of the protected areas managed by MNP (entire protected area network and those with direct FC funding) clearly reveals that the target of 0.5% could be achieved in just under a year following the start of implementation. The average deforestation rate between 2014 and 2021 was 0.67% (0.78%) for the protected areas with FC funding (all MNP protected areas). The figure also shows that, despite fluctuations, annual deforestation rates were significantly lower overall in the first ten years of the period under review until 2011 than in the previous ten years. Accordingly, the deforestation rate has increased in the meantime both outside and within the protected areas of Madagascar.

Contribution to overarching developmental changes (intended)

The impacts of the project can only be assessed on the basis of limited data availability and plausibility considerations. Due to the size of the protected areas, the diverse factors that influence the ecosystems and the limited project funds, the impact of the project measures on the reduction of the deforestation rate can also only be limited. A causal analysis of the project impacts is not possible on the basis of the available data.

As illustrated in Figure 3, the target of an annual deforestation rate of 0.5% has not yet been achieved in the protected areas under MNP management. At the same time, the figure for the period since 2012 shows that deforestation rates throughout Madagascar are significantly higher than those in the protected areas of MNP. The divergence between the deforestation rates in MNP's protected areas and those throughout Madagascar becomes even clearer when looking at the cumulative loss of forest area since 2000 to 2021 (see Figure 4). First of all, it can be seen – similar to Figure 3 – that the loss of forest area has increased more since 2013 than in previous years. At the same time, the figure shows that the gap between the MNP protected areas and the country's unprotected forests has been diverging with increasing dynamism, especially since 2014, when implementation of the project evaluated here began.

Figure 4: Cumulative forest loss since 2000 within and outside the protected areas



Source: Own presentation based on satellite data evaluations.

The above mentioned figures on the lower deforestation rate in the MNP protected areas compared to the country as a whole can be used as evidence that the work of MNP and the financing of the FC project supporting it has contributed to reducing the threat to the protected areas from deforestation. The rate of forest loss, in protected areas especially primary forest, can be described as dramatic. Over the last 20 years, around 4.5 million ha of forest have disappeared in Madagascar, which corresponds to a reduction of around 14%, according to the data available to date. In the same period, the cumulative rate of forest loss in the MNP protected areas was 9.3%. Without the work of MNP, the loss of forest in the protected areas would probably have been even higher if you look at the general development of Madagascar.

This can also be assessed as a success of the project, from which more than 37% of MNP's total expenditure was financed in the period in question from 2015 to 2018, including a share of 87% in MNP's equipment, which is essential to the employees' work on site.

In view of the difficult political and economic environment in Madagascar as well as the reluctance shown by other international donors, in addition to the need for the private sector for sustainable tourism development in times of crisis, the continuous financial support provided by the project in five phases so far can be assessed as the essential factor that has created the basis for the institutional survival of the executing agency in its current form. Without it, also according to the consensus assessment of the sector experts interviewed during the evaluation, the biodiversity and natural resources under the responsibility of MNP would have been in a significantly worse-off condition.

Contribution to impact (unintended)

No negative unintended development policy changes were identified at impact level during the evaluation.

Summary of the rating

The ambitious targets regarding deforestation rates could not be achieved. The average deforestation rate within the protected areas was higher during and after the implementation phase than in previous years. Since 2001, an estimated 9.3% of the forest area in the protected areas managed by MNP has been lost. At the same time, the data shows that forest deforestation is progressing more slowly in the supported protected areas than in unprotected areas and in protected areas that are not managed by MNP. It can be plausibly inferred from this that the

protection efforts of MNP at least slow down the progressive destruction of flora and fauna. Taking into account the very difficult framework conditions, the development effectiveness is evaluated as moderately successful.

Impact: 3

Sustainability

Capacities of participants and stakeholders

The executing agency MNP is currently organised in such a way that it can fulfil the tasks entrusted to it with its staff, equipment, organisational processes and control mechanisms, provided that it has an adequate budget available for this. Until now, MNP lacked the funds from the Madagascan budget to fulfil its tasks to the fullest extent, which is why external donors have stepped in. In the course of the COVID-19 pandemic, revenues from park tourism have almost completely dried up. MNP's share of self-financing – which mainly consists of income from admission fees and overnight stays as well as film and research rights – fell sharply from 35% in 2019 to only 3% in 2020 and 1.5% in 2021.¹⁷ For years now, no more money has flowed from state budget funds to MNP, so that its financing largely takes place via funds from international donors, including from FC funds from Phase IV of the projects evaluated here.

In addition to the financial bottlenecks, it should be noted that MNP's staff capacities and technical competences are currently still insufficient to adequately promote/support tourism and local residents. The fact that the important position of MNP's Director General has not been filled for almost two years impairs MNP's ability to act and has a negative impact on the mood among the workforce.

The target groups (local committees) have been organised and supported by the executing agency in recent years in such a way that they are potentially able to contribute to the protection of the areas entrusted to them and the flora and fauna found within them. However, the social and economic situation for the local population remains very precarious even close to a decade after the start of the project evaluated here. There is a lack of sufficient financial alternatives and incentives, so the use of natural resources in protected areas often remains the only way to secure survival. The incentives for the conservation of biodiversity must be significantly increased by creating alternative sources of income and survival opportunities if the local population is to be persuaded to help sustainably protect the parks. Without a significant increase in income, which can contribute to resilience even in times of crisis, protecting biodiversity will remain very difficult over the long term.

Contribution to supporting sustainable capacities

The need to involve the local population was already addressed in the design of the project, but was ultimately not supported by the necessary financial resources. This was due, on the one hand, to the lack of implementation capacities of MNP, and, on the other, to the redirection of the use of the funds for the project that was deemed necessary (and also expedient in terms of content) due to late recognition of financing bottlenecks by the executing agency. These were based on an underestimation of expenditure in the strategic plan and the lack of funding from the budget and other donors. The corresponding risks had also been identified here, but were underestimated.

Throughout the duration of the project, promotion of projects focussing on local residents took place, which was mainly financed using World Bank funds (see Coherence). Some small projects were also supported by local residents within the scope of the project, but to a significantly lesser extent than originally planned. According to MNP, the total promotion of small projects during the implementation period 2015-2018 amounted to EUR 1.4 million. Local residents also benefit from paid monitoring activities, marking and maintenance work as well as other income-generating measures. According to MNP, between 2015 and 2018, around EUR 9 million (including expenditure for small projects), and therefore about a third of MNP's total expenditure for this period, was made available for the benefit of the local population. Since the project financed a significant share of MNP's costs for this period, a plausible contribution from the project can be derived for this form of local population promotion. The project also made an indirect contribution to the promotion of the local population through the financing of consultancy services and training in the areas of tourism and the development of strategies for local resident promotion. Nevertheless, it must be noted that, given widespread poverty, significantly more funds are required for

¹⁷ The figures come from the reporting on the currently ongoing fourth phase of the evaluated projects from 2022. KfW had not yet received the progress report for 2023 at the time of the evaluation.

the promotion of the local population in order to be able to reduce the pressure of use in the long term through the creation of alternative income sources.

Despite this, the decision to focus primarily on maintaining the executing agency's functional capability led to the maintenance and expansion of capacity at MNP, which is of great importance for the sustainable continuation of resource conservation. Over the years, MNP has grown in importance as an advocate for biodiversity in Madagascar in conjunction with the biodiversity trust FAPBM. This has occurred at the same time as the state institutions, especially the Ministry of the Environment, have lost credibility in this area, as indeed they have lost credibility as a whole. The renewed willingness of international donors to participate in the financing of biodiversity conservation through MNP and FAPBM is a clear sign of this importance and offers hope of a certain sustainability of the corresponding efforts.

As part of the consultant support provided to the MNP head office in the area of financial management, the project has helped to ensure that the use and settlement of MNP's financial resources (donor funds and own revenue) has become more professional since the start of the project and, as a result, the internal audit department has received and successfully kept its certification in accordance with ISO 9001.

Durability of impacts over time

A large part of the project funds were spent on financing running costs (46%) and consultancy services (22%), and therefore on measures that cannot initially be regarded as sustainable. Considering the alternatives to this cost acceptance, which would have probably led to a loss of MNP's functionality and at least to much more limited activity in the protected areas, the re-allocation of costs and the increase from 9% to 46% in running costs was logical in the sense of the decision taken. The fact that MNP is now regarded as a functioning organisation that is once again attractive to donors and can acquire donor funds can be regarded as a success of the project. In follow-up phase IV of the project evaluated here, too, budgets were reassigned during implementation in the years characterised by the COVID-19 pandemic and the resulting drop in revenues in order to support the functionality of MNP.

The current management plan of MNP calculates total costs amounting to approximately EUR 30 million for the period 2024-2027. A large part of the financing of these costs is to come from funds from FAPBM (EUR 11 million) and the international development cooperation (approx. EUR 16 million, including EUR 12 million in FC funds from Phase V of this project). According to plan, additional financing needs are to be covered by revenue from tourism as well as film and research licences. From today's perspective, the financing of the Madagascar protected areas and the associated overarching effects (conservation of biodiversity) in the coming years therefore seems to be secured. In the medium to long term, FAPBM is expected to play an even more central role in financing than is already the case now. The FAPBM trust assets consist of *basic assets* to be preserved and *sinking funds* intended for use. The basic assets are invested on the capital market and generate income, which FAPBM uses to finance the Madagascar protected areas. FAPBM is therefore a long-term financing instrument. Since the start of the project evaluated here in 2015, the foundation's capital has increased from USD 52 million to approximately USD 140 million (265%). This makes FAPBM the largest nature conservation trust in Africa. Another endowment from FC funds in the amount of EUR 10 million is also planned for 2023. In the past decade, the earnings situation of the FAPBM – as with other nature conservation trusts – was still significantly affected by the low interest rate phase, but due to the global rise in interest rates since 2022, an improvement in the earnings situation and therefore also the financing opportunities for the Madagascar protected areas can be expected. It is currently assumed that sufficient income from FAPBM's trust assets will be available from 2027 to bear MNP's staffing costs in full and also part of other MNP operating costs. Given the comparatively high capital base of the FAPBM and the inherent sustainability of this financial instrument, the evaluation team considers it likely that the impacts resulting from the MNP's protection efforts to date will also last in the longer term.

On the other hand, government support cannot currently be relied upon. In general, it can be stated that the Madagascar government, which was newly appointed at the time of the appraisal of Phases II and III of the project in 2014, attributed significantly less importance to the Madagascar environmental protection programme formulated by the previous government than had been expected by the majority of political observers. Throughout Phases II and III and beyond, little funding was allocated to the environmental sector from the budget. In addition to the absence of financial contributions for the sector, it should be noted that there has also been no political support for nature and resource conservation issues despite statements to the contrary at donor conferences. The promotion of the illegal exploitation of resources from protected areas and their peripheral zones takes place primarily with political support from the political elite. This has been the case for both administrations since the start of the second phase of the project and is also the case currently.

Due to the prevailing framework conditions for protected areas in Madagascar, it can therefore be assumed, even in the long term, that the total costs can only be covered to a very small extent by own contributions from MNP or budget funds. Economically profitable operation of the protected area system is also not to be expected in the long term. For this reason, the nature conservation trust established for this purpose will have to bear the ongoing costs on a permanent basis, as will international donors for the necessary investments and equipment. The conservation of Madagascar's unique biodiversity is a global public good, which is why international (partial) financing seems justified and expedient from a development policy perspective, also in the long term.

The greatest threat to the longevity of the impacts is still the high usage pressure due to poverty and migration. The increase in deforestation (see Impact) also reflects the devastating poverty situation in the country, which has been exacerbated by the COVID-19 pandemic. The global COVID-19 pandemic was additionally reflected in Madagascar by the collapse of international tourism and therefore the lack of income from park visitors for both MNP as well as guides, restaurants and accommodation providers in the local area.

Another factor that is exacerbating pressure on an increasing number of protected areas is the internal migration from the south of Madagascar towards the north of the country, mainly triggered by famines in the south. For some time now, interlocutors have also reported controlled migration caused by the interests of economic actors, which are often tolerated or even covered by policy, and clearing of protected areas, e.g. wheat cultivation for sugar production as well as illegal timber and wildlife abstraction.

Summary of the rating

The project made a lasting contribution to supporting the executing agency MNP and built up capacities there that are urgently needed to cope with the ever-increasing demands on the administration of the increasingly pressured protected areas. Nevertheless, due to the high, poverty-induced pressure on resources and the general framework conditions, the conservation of Madagascar's fauna and flora is still at great risk. The project has contributed to at least slowing down the progressive destruction. At the moment, there seems to be good chances that, with steadily growing income from the nature conservation trust FAPBM, the dependence on financing of protected area operations in Madagascar by external donors can be reduced. However, effectively combating the main causes of destruction – above all the extreme poverty and need of the local population – remains a long-term task that would require significant international support. The protection of biodiversity as a global public good justifies such commitment. Overall, the project's sustainability is rated as moderately successful.

Sustainability: 3

Overall rating: 3

The project has contributed to enabling MNP to perform its tasks as part of the conservation of natural resources in its protected areas. Without the continuous financing by the project as well as the flexibility to respond to current challenges and adjust the use of the funds accordingly, this would probably not have been sufficiently possible or possible at all for the executing agency. Another significant benefit of the project is that MNP is now in a better administrative, staffing and financial position than it was ten years ago.

However, the reallocation of project funds in order to support the executing agency came at the expense of direct local community promotion. A conceptual weakness of the project is the overly ambitious objectives, which are not appropriate in light of the prevailing framework conditions. The objectives set at outcome level were only partially achieved, whereby the target achievement was also impaired by external influences (political and economic framework conditions, COVID-19 pandemic). At impact level, the goal of a reduction in the deforestation rate could not be achieved. However, it is worth mentioning here that forest deforestation in the supported protected areas is progressing more slowly than the national average and therefore the protection efforts of MNP seem to have at least slowed down the progressive destruction of flora and fauna. In view of the prevailing framework conditions, this can already be assessed as a success despite high forest loss rates. Ensuring long-term financing of MNP's operational expenditure from a reliable, donor-independent national source remains a key challenge for protecting Madagascar's ecosystems and preserving its biodiversity. At least with regard to the financial security of the protected area operation, Madagascar appears to be structurally better positioned than many other low-income countries as a result of the support of FAPBM, Africa's largest nature conservation foundation. An even greater challenge remains the permanent improvement of the living standards of the local population because the pressure of use due to poverty and migration poses the greatest threat to the longevity of the effects. For these reasons, the project is rated as moderately successful.

A separation of content between the two phases of the project evaluated here is not possible and would also not be expedient. Both the individual and the overall evaluation therefore relate to both phases of the project.

Contributions to Agenda 2030

Universal application, shared responsibility and reporting

The implementation of the project made a direct contribution to achieving Agenda 2030. By improving the protection of biodiversity in the protected areas supported, the project contributed to SDG 15 (Life on land). Increased income for the population employed in the protected areas and the sustainable management of peripheral zones, as well as the protection of natural resources, increased the climate resilience of the population and ecosystems, which also contributes to the achievement of SDG 13 (Climate action) as well as the climate mitigation effects of the preservation of forests as important CO₂ sinks. With improved management of natural resources in the peripheral areas, the project also addressed SDG 11 (Sustainable cities and communities).

Interaction between economic, ecological and social development

In principle, the project pursued a holistic approach, although the promotion of socio-economic concerns was significantly lower than originally planned. The potential adverse impacts on environmental and social issues caused by the project are estimated to be minimal, as the investments were predominantly made at existing park station locations and are limited to the local area. No special countermeasures were required; basic standards were taken into account in the detailed planning of the state-of-the-art infrastructure. Negative, unintended environmental impacts as a result of the infrastructure measures are not known. The original assessment, that there is no need for EIA action, is no longer justified from today's perspective; the project would have to be classified as a project in ESIA category B or B+ according to today's criteria, as was the case for the MP of the current phase V.

Inclusiveness/leave no one behind

In its design, the project took into account the interests of the target group and aimed for an inclusive nature conservation concept. Due to the necessary adaptations to the design and the associated de-prioritisation of local residents' promotion in favour of continuing the operation of the protected area, cuts had to be made here. However, the provision of funds from the World Bank via the nature conservation trust in roughly the same amount led to local residents' measures in the order of close to 90% of the planned amount being implemented.

The project also made a modest contribution to SDG 1 (No poverty), as the local population of the protected areas, which is to be described as poor overall, benefited directly from income opportunities from park management and tourism, e.g. as guides. At the same time, the project also supported the target group's co-determination and participation in decision-making processes for the protected area administration; the local residents were included in the integrated park management via the conservancies. This gave them a certain say and involvement in the protection and use of natural resources, the implementation of park management plans and land use options.

Project-specific strengths and weaknesses as well as cross-project conclusions and lessons learned

The project had the following strengths and weaknesses in particular¹⁸:

- The project's ability to adapt to changing challenges, such as the almost complete elimination of other sources of financing, in a timely manner and to make a decisive contribution to the executing agency's functioning by replanning the project's expenditure is one of its key strengths.
- The project was closely based on the partner's design and its intervention logic. This meant that no external priorities were imposed on the partner and the partner's systems were valued.
- One weakness of the project was an ambition level that was too high with regard to the objectives set, which was not appropriate in light of the existing situation. Furthermore, the objectives and indicators were not adjusted after the conceptual changes.
- Although the lack of prioritisation of the local population measures in favour of supporting the executing agency's ongoing operations is understandable in light of the need to secure its functioning, this has the consequence that the long-term importance of preserving the protected areas is difficult to convey to the local population, as they are currently facing a severe lack of resources. However, this is recognised and addressed correctly in the subsequent phases.

Conclusions and lessons learned (at least three):

Flexible adjustment to changing challenges is important: The expectations of the project proved to be unrealistic during implementation. Only some of the originally formulated objectives could be achieved. Appropriate conclusions were drawn from these weaknesses in planning and design for the formulation of the objectives at outcome and impact levels for the current phase V.

Involving the local population in conservation measures and compensating for economic losses through resource conservation is essential for sustainability: Natural resources in the protected areas of Madagascar can only be successfully preserved if the local population living there is involved to a degree that compensates for the current economic disadvantages arising from the protection of these areas and if they are shown that functioning ecosystems can improve their situations in the medium term. The executing agency MNP is very aware of this, but the design and implementation of measures to improve the economic situation of the local population is not one of its core competencies. This was only realised by both MNP and the project when the project was already being implemented. Due to the poverty situation, it can be assumed that the local population will have to earn a significant portion of their income through illegal abstractions from the protected areas whenever the need is particularly great. Finding solutions to this can be considered one of the greatest challenges for the effective protection of these ecosystems.

The development of local financing mechanisms is of central importance for the sustainable financing of running costs: the financing of running costs, in particular staff costs, for an executing agency such as MNP with a network of protected areas spread across the country represents a major challenge under the prevailing political and economic framework conditions in Madagascar. In the absence of own revenue and contributions from the state budget, these can only be raised with great difficulty via German or international FC investment projects, as these projects are intended to achieve long-term and sustainable effects. This is why cooperation with actors such as the Madagascar environmental trust is particularly important, as it can and should sustainably bear these running costs from the capital income generated annually. The German government has been particularly foresighted in this regard and has now provided the trust with a contribution of EUR 77.2 million in capital, which corresponds to a share of 61%, thereby serving as a model for other donors to also support the very successfully operating trust. The German Federal Government has planned to increase capital by a further EUR 10 million this year. The high German funding share in the FAPBM's capital as well as its solid performance were important reasons for France's decision to increase its support for FAPBM by a further EUR 5 million. At the moment, support for FAPBM by the EU in the amount of EUR 20 million is in preparation.

If support for the local population is not one of the core competences of a nature conservation organisation, close cooperation with specialised organisations is recommended: MNP has meanwhile recognised that it is not properly positioned to implement activities for the economic promotion of the local population and

¹⁸ Strengths and/or weaknesses identified within the scope of this evaluation do not represent sufficient prerequisites for future projects to ensure successful implementation. The heterogeneous and dynamic context needs to be analysed appropriately and taken into account when designing new projects.

does not have the necessary competences. Therefore, it is right to delegate these tasks to other actors in the sector who can implement them much more efficiently and successfully.

Global goods such as resource conservation require long-term international commitments: The Madagascan governments in recent years appear to have lost interest in nature conservation despite statements to the contrary and are setting other political priorities. Therefore, a substantial contribution to the financing of the environment from the national budget is not to be expected, even less in the future than in the past. These risks were also addressed in all plans and reports to the BMZ. All donors' approaches to protecting the unique biodiversity in Madagascar, a global asset, should take this into account and also take it into account in the budget planning of their projects.

Evaluation approach and methods

Methodology of the ex post evaluation

The ex post evaluation follows the methodology of a rapid appraisal, which is a data-supported qualitative contribution analysis and constitutes an expert judgement. This approach ascribes impacts to the project through plausibility considerations which are based on a careful analysis of documents, data, facts and impressions. This also includes – when possible – the use of digital data sources and the use of modern technologies (e.g. satellite data, online surveys, geocoding). The reasons for any contradicting information are investigated and attempts are made to clarify such issues and base the evaluation on statements that can be confirmed by several sources of information wherever possible (triangulation).

Documents:

Internal project documents, secondary specialist literature, strategy papers, context, country and sector analyses, comparable evaluations and media reports.

Data sources and analysis tools:

Monitoring data from the partner, satellite images of deforestation within and outside the protected areas of Madagascar.

Interview partners:

Project-executing agency, KfW project managers, GIZ, target group, FAPBM.

The analysis of impacts is based on assumed causal relationships, documented in the results matrix developed during the project appraisal and, if necessary, updated during the ex post evaluation. The evaluation report sets out arguments as to why the influencing factors in question were identified for the experienced effects and why the project under investigation was likely to make the contribution that it did (contribution analysis). The context of the development measure and its influence on results is taken into account. The conclusions are reported in relation to the availability and quality of the data. An evaluation concept is the frame of reference for the evaluation.

On average, the methods offer a balanced cost-benefit ratio for project evaluations that maintains a balance between the knowledge gained and the evaluation costs, and allows an assessment of the effectiveness of FC projects across all project evaluations. The individual ex post evaluation therefore does not meet the requirements of a scientific assessment in line with a clear causal analysis.

The following aspects limit the evaluation:

Insufficient data on the income situation of the local population. Missing data for the specially supported protected areas for module objective indicator 3. General attribution problem between supported measures and target achievement at outcome and impact level.

Methods used to evaluate project success

To evaluate the project according to OECD-DAC criteria, a six-step scale is used for all criteria except for the sustainability criterion. The scale is as follows:

- Level 1** very successful: result that clearly exceeds expectations
- Level 2** successful: fully in line with expectations and without any significant shortcomings
- Level 3** moderately successful: project falls short of expectations but the positive results dominate
- Level 4** moderately unsuccessful: significantly below expectations, with negative results dominating despite discernible positive results
- Level 5** unsuccessful: despite some positive partial results, the negative results clearly dominate
- Level 6** highly unsuccessful: the project has no impact or the situation has actually deteriorated

The overall rating on the six-point scale is compiled from a weighting of all six individual criteria as appropriate to the project in question. Rating levels 1-3 of the overall rating denote a “successful” project while rating levels 4-6 denote an “unsuccessful” project. It should be noted that a project can generally be considered developmentally “successful” only if the achievement of the project objective (“effectiveness”), the impact on the overall objective (“impact”) and the sustainability are rated at least “moderately successful” (level 3).

List of abbreviations:

AFD	Agence Française de Développement,
GDP	Gross domestic product
BMZ	German Federal Ministry for Economic Cooperation and Development
DAC	Development Assistance Committee
EU	European Union
EUR	Euro
FAO	Food and Agriculture Organization of the United Nations
FAPBM	Fondation pour les Aires Protégées et la Biodiversité de Madagascar
FC	Financial Cooperation
FC E	FC evaluation
GEF	Global Environmental Fund
HDI	Human Development Index
IRD	Institut de Recherche pour le Développement
MNP	Madagascar National Parks
NP	National park(s)
NGO	Non-governmental organisation
PAGE	Programme d'Appui à la Gestion de l'Environnement
PSSE	Plans de Sauvegarde Sociale et Environnementale
PP	Project proposal
SG	Protected areas
ToC	Theory of Change
TC	Technical cooperation
UNESCO	United Nations Educational, Scientific and Cultural Organisation
USD	US Dollar

Publication details

Contact:

FC E

Evaluation department of KfW Development Bank

FZ-Evaluierung@kfw.de

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KfW Group

Palmengartenstrasse 5–9

60325 Frankfurt am Main, Germany

List of annexes:

Target system and indicators annex

Risk analysis annex

Project measures and results annex

Recommendations for operation annex

Evaluation questions in line with OECD DAC criteria/ex post evaluation matrix annex

Target system and indicators annex

Project objective at outcome level			Rating of appropriateness (former and current view)			
During project appraisal: Madagascar's sensitive ecosystems are sustainably protected and valued in the protected areas and their buffer zones, in cooperation with the population groups concerned.			The target is more at impact level than at outcome level. The level of ambition is too high in view of the enormous environmental and economic challenges and the low project funds for tackling these.			
During EPE (if target modified): MNP is able to maintain the operational capability of the protected areas						
Indicator	Evaluation of appropriateness (appropriate; partially appropriate; not appropriate)	Rationale of appropriateness (for example, regarding impact level, accuracy of fit, target level, smart criteria)	PA target level	PA status (2014)	Status at final inspection (2018)	Optional: Status at EPE (2021)
(1) The threat to the protected areas supported by the programme is reduced	Appropriate	Indicator generally appropriate, as internationally established tools (IUCN) are used (check local survey and analysis). However, in view of the high threat situation and the simultaneous chronic underfinancing of the protected areas, the target level seems too ambitious.	High 6% Medium 61% Low 33%	Very high 6% High 28% Medium 39% Low 28%	Very high 0% High 6% Medium 61% Low 33%	Very high 0% High 0% Medium 72% Low 28%
(2) The proportion of the area monitored jointly with local committees (Comité Locale du Parc, CLP) increases for the protected areas supported by the FC.	Partially appropriate	Indicator appropriate in terms of content, if data basis and analysis OK (check on site). The original target level is too ambitious.	95% (adjusted ex post to 70%)	49%	66%	70%

<p>(3) The proportion of periphery areas managed by local communities under “Transfert de Gestion” agreements increases for the protected areas supported by the FC</p>	<p>Partially appropriate</p>	<p>Indicator appropriate in terms of content, if data basis and analysis OK (check on site). The original target level is too ambitious. Appropriateness less in retrospect, as only a fraction of the proposed local community promotion measures were implemented</p>	<p>95% (adjusted ex-post to 70%)</p>	<p>35%</p>	<p>47%</p>	<p>10% (but value for entire protected area system)</p>
<p>(4) Annual revenue from services amounted to more than USD 3 million in 2018.</p>	<p>Partially appropriate</p>	<p>Appropriate in terms of content; however, since the income situation is subject to very strong external risks, the intended doubling appears far too ambitious</p>	<p>USD 3 million</p>	<p>USD 1.5 million</p>	<p>USD 2.3 million</p>	<p>USD 0.67 million</p>
<p>(5) The internal audit achieves and retains ISO 9001 certification.</p>	<p>Appropriate</p>	<p>Improving financial management is an important determinant of effective protected area management.</p>		<p>No</p>	<p>Certification received</p>	<p>Certification received</p>
<p>(6) A strategy to support the socio-economic development of the peripheral zones has been defined by 2015 and will be implemented in x protected areas from 2016.</p>	<p>Partially appropriate</p>	<p>Implementation not further defined.</p>	<p>Strategy has been developed and local residents are being promoted</p>	<p>0 – no strategy developed and implemented</p>	<p>Strategy has been developed, local residents are only supported in selective areas</p>	<p>Supported strategy has been developed, but local residents are only supported on a selective basis and not in all protected areas</p>
<p>NEW: Indicator 1b) The threat situation of all protected areas managed by MNP is reduced</p>	<p>Appropriate</p>	<p>Inclusion of this indicator, as a large part of the expenditure went into the financing of running costs of MNP due to deviation</p>	<p>High 20% Medium 55% Low 25%</p>	<p>Very high 12% High 30% Medium 37% Low 21%</p>	<p>Very high 0% High 19% Medium 56% Low 26%</p>	<p>Very high 0% High 14% Medium 58% Low 28%</p>

		from the original conception and therefore the entire protected area system is (indirectly) promoted via the project.				
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Project objective at impact level						
During project appraisal: Sustainable management of natural resources is improved in selected areas (focus regions north and south-west)						
During EPE (if target modified): The project contributes to the conservation of the fauna and flora of Madagascar						
Indicator	Evaluation of appropriateness (appropriate; partially appropriate; not appropriate)	Rationale of appropriateness (for example, regarding impact level, accuracy of fit, target level, smart criteria)	Target level EPE (new)	PA status (2014)	Status at final inspection (2018)	Status at EPE (2022)
<p>Indicator 1 (PA): The annual deforestation rate is declining at 9.2 million ha of sustainably managed or protected forest area</p> <p>New for EPE: The annual deforestation rate in the supported protected areas is declining (annual reduction less than 0.5%) ...</p>	Appropriate	<p>Indicator starts at the correct impact level. Overall, the development of deforestation is a good proxy for the state of the protected areas. However, the indicator does not specify which forest area is referred to (all protected areas, only specially promoted protected areas). Unclear where the reference value of 9.2 million ha comes from.</p> <p>The deforestation rate in the protected areas should also be</p>	Annual reduction less than 0.5%	<p>Average deforestation rate from 2001-2013: 0.37%</p> <p>Deforestation rate in 2013: 0.97%</p>	Average deforestation rate between 2014-2018: 0.8%	Average deforestation rate between 2014 and 2021: 0.67%

		proportionate to the deforestation rate outside the protected areas. It should be lower for protected areas than for forest areas outside the protected areas.				
Indicator 2 (PP): Adopted laws/regulations for the participation-oriented implementation of the MAP in the focus sector and the institutional reforms required for this are implemented.	Not appropriate	Not suitable from today's perspective, as measurement is not objectively possible. The indicator and the target value are of little significance, as they do not say anything about the subject matter of institutional reforms.				Not relevant
(3) The transfer and long-term exercise of forest usage rights by the population is legally secured (transfer of use, contracts).	Not appropriate	Not suitable from today's perspective, as measurement is not objectively possible. The measures implemented by the project are also not directly related to the indicator	100%	No value	Not collected	Not relevant
(4) The annual additional income of local households (through tourism, erosion control, forestry and energy management) ensures the achievement of MAP Commitment 7 (ecological sustainability of resource management); women have a	Partially appropriate	Indicator for revenue from measure-related sources generally well suited as a proxy for sustainable development (in particular if there was a before and after comparison between a representative sample of the local population benefiting from project measures and a suitable comparison group).	5% increase in income	No value	Not collected	No income data was collected, so no statements can be made about target achievement for the project context. Only approximately EUR 141,000 for local measures (mainly schools) - therefore no income

<p>significant share of this income increase</p>		<p>In retrospect, no significant income effects are to be expected in view of the small number of local community measures implemented and their type. In addition, no baseline data collection was carried out on the basis of which it would have been possible to make statements about any change in the income situation.</p>				<p>effects to be expected According to</p>
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Risk analysis annex

All ex-ante described risks have occurred.

Risk	Relevant OECD-DAC criterion
Poor governance, corruption, lack of legal certainty, lack of freedom and individual liability as a prerequisite for the sustainable management of natural resources (occurred)	Effectiveness, overarching effects, sustainability
Lack of participation on the part of other donors (occurred)	Relevance, efficiency, coherence, effectiveness
Revenues of parks from international tourism stagnate/decrease	Effectiveness, overarching effects, sustainability
Lack of reform readiness of MNP against the backdrop of changing staff within MNP and political constraints	Efficiency, effectiveness, overarching effects, sustainability
Low/lack of contributions from the Madagascar government, in particular debt swap funds to FAPBM	Relevance, efficiency, effectiveness, overarching effects, sustainability

Project measures and their results annex

The project measures and results are presented in the main section under Effectiveness.

Recommendations for operation annex

No recommendations for operation were made in the final inspection report. There are also no recommendations in the context of the ex post evaluation.

Evaluation questions in line with OECD-DAC criteria/ex post evaluation matrix annex

Relevance

Evaluation question	Specification of the question for the present project	Data source (or rationale if the question is not relevant/applicable)	Rating	Weighting (- / o / +)	Rationale for weighting
Evaluation dimension 1: Policy and priority focus			2		
1.1 Are the objectives of the programme aligned with the (global, regional and country-specific) policies and priorities, in particular those of the (development policy) partners involved and affected and the BMZ?	Is the protection of fauna and flora a goal of German DC and the Madagascar government?	Madagascar's environmental action plan; BMZ 2030 Strategy Core Area 5, BMZ Biodiversity Position Paper, Biodiversity Convention			
1.2 Do the objectives of the programme take into account the relevant political and institutional framework conditions (e.g. legislation, administrative capacity, actual power structures (including those related to ethnicity, gender, etc.))?	Does the government implement its own goals? Was it already foreseeable at the time of the PA that MNP would not be able to fulfil its tasks due to a lack of government funds?	Consultant reports and reports of the executing agency			
Evaluation dimension 2: Focus on needs and capacities of participants and stakeholders			3		
2.1 Are the programme objectives focused on the developmental needs and capacities of the target group? Was the core problem identified correctly?	Were the measures envisaged sufficient to improve the participation of local residents and to achieve economic progress?	Reports from consultant, MNP and FAPBM Interviews with local residents			
2.2 Were the needs and capacities of particularly disadvantaged or vulnerable parts of the target group taken into account (possible differentiation according to age, income, gender,	Would a division of the target group into different groups be expedient? According to which criteria were the local community measures selected?	Reports from consultant, MNP and FAPBM Interviews with local residents			

ethnicity, etc.)? How was the target group selected?	How are the local committees for the monitoring of protected areas composed? Are different groups represented there?			
2.3 Would the programme (from an ex post perspective) have had other significant gender impact potentials if the concept had been designed differently? (FC-E specific question)				
Evaluation dimension 3: Appropriateness of design			3	
3.1 Was the design of the programme appropriate and realistic (technically, organisationally and financially) and in principle suitable for contributing to solving the core problem?	Organisational matters: Was the support for MNP as executing agency correct? Financial: Approximately 10% of the project funds were originally planned for local community measures. Is this an appropriate proportion to contribute to solving the core problem (resource pressure)?	Own knowledge of the sector/interviews with operatives		
3.2 Is the programme design sufficiently precise and plausible (transparency and verifiability of the target system and the underlying impact assumptions)?		Reports (see above)		
3.3 Were the selected indicators and their value allocation appropriate in their entirety (select one of the following to answer: indicators and values were appropriate / partially appropriate / not appropriate)? The rationale is differentiated according to indicators in Appendix 1. (FC-E specific question)		Reports (KfW, executing agency and consultant)		
3.4 Please describe the theory of change, incl. complementary measures, if necessary in the form of a graphical representation. Is this plausible? As well as specifying the original	Financing to strengthen the executing agency MNP leads to a sustainable strengthening of MNP. This enables MNP to perform its tasks better -> Madagascar's resources are protected	Reports		

<p>and, if necessary, adjusted target system, taking into account the impact levels (outcome and impact). The (adjusted) target system can also be displayed graphically. (FC-E specific question)</p>	<p>See graphical representation in main section under Relevance</p>		
<p>3.5 To what extent is the design of the programme based on a holistic approach to sustainable development (interplay of the social, environmental and economic dimensions of sustainability)?</p>	<p>Are the economic and social concerns of the local population taken into account in the design?</p>		
<p>3.6 For projects within the scope of DC programmes: is the programme, based on its design, suitable for achieving the objectives of the DC programme? To what extent is the impact level of the FC module meaningfully linked to the DC programme (e.g. outcome impact or output outcome)? (FC-E specific question)</p>	<p>n/a</p>	<p>Reports</p>	
<p>Evaluation dimension 4: Response to changes/adaptability</p>			<p>2</p>
<p>4.1 Has the programme been adapted in the course of its implementation due to changed framework conditions (risks and potential)?</p>	<p>What would the consequences have been if the project had been terminated? What would have been the consequences of not redirecting?</p>	<p>KfW reports; executing agency and consultant</p>	
<p>Other evaluation question 1</p>	<p>Could it have already been noticed in the executing agency analysis at the PA that the running costs had been severely underestimated by the executing agency?</p>	<p>KfW reports; executing agency and consultant</p>	

Coherence

Evaluation question	Specification of the question for the present project	Data source (or rationale if the question is not relevant/applicable)	Rating	Weighting (- / 0 / +)	Rationale for weighting
Evaluation dimension 5: Internal coherence (division of tasks and synergies within German development cooperation):			2		
5.1 To what extent is the programme designed in a complementary and collaborative manner within German DC (e.g. integration into DC programme, country/sector strategy)?		Final inspection; on-site meetings with GIZ, interviews with KfW managers			
5.2 Do the instruments of German DC dovetail in a conceptually meaningful way, and are synergies put to use?		Final inspection; on-site meetings with GIZ, interviews with KfW managers			
5.3 Is the programme consistent with international norms and standards to which German development cooperation is committed (e.g. human rights, Paris Climate Agreement, etc.)?		KfW reports, BMZ position and strategy papers			
Evaluation dimension 6: External coherence (complementarity and coordination with actors external to German DC):			2		
6.1 To what extent does the programme complement and support the partner's own efforts (subsidiarity principle)?		Interview with executing agency; consultant			

6.2 Is the design of the programme and its implementation coordinated with the activities of other donors?		Interview with other donors
6.3 Was the programme designed to use the existing systems and structures (of partners/other donors/international organisations) for the implementation of its activities and to what extent are these used?		Interview with executing agency
6.4 Are common systems (of partners/other donors/international organisations) used for follow-up/evaluation, learning and accountability?		TE, PM, other donors in on-site meetings; discussions with executing agency

Effectiveness

Evaluation question	Specification of the question for the present project	Data source (or rationale if the question is not relevant/applicable)	Rating	Weighting (- / o / +)	Rationale for weighting
Evaluation dimension 7: Achievement of (intended) targets			3		
7.1 Were the (if necessary, adjusted) objectives of the programme (incl. capacity development measures) achieved? Table of indicators: Comparison of actual/target	--	Final inspection, TE interviews, data for individual protected areas from the executing agency on visitor numbers, involvement and support for the local population, protected area threat situation			
Evaluation dimension 8: Contribution to achieving targets:			3		
8.1 To what extent were the outputs of the programme delivered as planned (or adapted to new developments)? <i>(Learning/help question)</i>	Which and how many local community measures were financed?	Final inspection, TE interviews, data for individual protected areas from the executing agency on visitor numbers, involvement and			

		support for the local population, protected area threat situation
8.2 Are the outputs provided and the capacities created used?		Final inspection, interviews with executing agency and target group
8.3 To what extent is equal access to the outputs provided and the capacities created guaranteed (e.g. non-discriminatory, physically accessible, financially affordable, qualitatively, socially and culturally acceptable)?		Conversations with executing agency
8.4 To what extent did the programme contribute to achieving the objectives?		Conversations with executing agency
8.5 To what extent did the programme contribute to achieving the objectives at the level of the intended beneficiaries?	Was it a mistake not to use any more funds for local residents?	Interviews with executing agency and target group, FAPBM
8.6 Did the programme contribute to the achievement of objectives at the level of the particularly disadvantaged or vulnerable groups involved and affected (potential differentiation according to age, income, gender, ethnicity, etc.)?		Conversations with executing agency
8.7 Were there measures that specifically addressed gender impact potential (e.g. through the involvement of women in project committees, water committees, use of social workers for women, etc.)? (FC-E specific question)		Project documentation
8.8 Which project-internal factors (technical, organisational or financial) were decisive for the achievement or non-achievement of the intended objectives of the programme? (<i>Learning/help question</i>)		Project documents, interviews with executing agency and KfW managers

<p>8.9 Which external factors were decisive for the achievement or non-achievement of the intended objectives of the programme (also taking into account the risks anticipated beforehand)? <i>(Learning/help question)</i></p>	<p>What risks for the success of the project were anticipated at MP and how were these classified?</p>				
<p>Evaluation dimension 9: Quality of implementation</p>			3		
<p>9.1 How is the quality of the management and implementation of the programme to be evaluated with regard to the achievement of objectives?</p>		Interviews (PM, TE, executing agency)			
<p>9.2 How is the quality of the management, implementation and participation in the programme by the partners/sponsors evaluated?</p>		Discussions with other donors			
<p>9.3 Were gender results and relevant risks in/through the project (gender-based violence, e.g. in the context of infrastructure or empowerment projects) regularly monitored or otherwise taken into account during implementation? Have corresponding measures (e.g. as part of a CM) been implemented in a timely manner? (FC-E specific question)</p>					
<p>Evaluation dimension 10: Unintended consequences (positive or negative)</p>					
<p>10.1 Can unintended positive/negative direct impacts (social, economic, ecological and, where applicable, those affecting vulnerable groups) be seen (or are they foreseeable)?</p>	<p>Have more frequent patrol activities led to more frequent conflicts with the local population?</p>				

	Are there losses for local residents as a result of less land and resource use potential due to protected areas?	
10.2 What potential/risks arise from the positive/negative unintended effects and how should they be evaluated?		
10.3 How did the programme respond to the potential/risks of the positive/negative unintended effects?		

Efficiency

Evaluation question	Specification of the question for the pre- sent project	Data source (or rationale if the question is not relevant/applicable)	Rating	Weighting (- / o / +)	Rationale for weighting
Evaluation dimension 11: Production efficiency			2		
11.1 How are the inputs (financial and material resources) of the programme distributed (e.g. by instruments, sectors, sub-measures, also taking into account the cost contributions of the partners/executing agency/other participants and affected parties, etc.)? (Learning and help question)		KfW reporting			
11.2 To what extent were the inputs of the programme used sparingly in relation to the outputs produced (products, capital goods and services; if possible in a comparison with data from other evaluations of a region, sector, etc.)? For example, comparison of specific costs.		MNP reports			
11.3 If applicable, as a complementary perspective: To what extent could the		FAPBM reports			

outputs of the programme have been increased by an alternative use of inputs (if possible in a comparison with data from other evaluations of a region, sector, etc.)?				
11.4 Were the outputs produced on time and within the planned period?		KfW/MNP reports		
11.5 Were the coordination and management costs reasonable (e.g. implementation consultant's cost component)? (FC-E specific question)		KfW/MNP reports, discussions with MNP, FAPBM and other donors, government		
Evaluation dimension 12: Allocation efficiency			2	
12.1 In what other ways and at what costs could the effects achieved (outcome/impact) have been attained? (<i>Learning/help question</i>)		Discussions with MNP, FAPBM and other donors, government		
12.2 To what extent could the effects achieved have been attained in a more cost-effective manner, compared with an alternatively designed programme?	Did it make sense from an efficiency point of view to deviate from the original concept and finance running costs?	Discussions with MNP, FAPBM and other donors, government		
12.3 If applicable, as a complementary perspective: To what extent could the positive effects have been increased with the resources available, compared to an alternatively designed programme?	Should more money have been invested in support for local residents instead?	Discussions with MNP, FAPBM and other donors, government		
Note: If the internal identifier PSP (Private Sector Participation; see Inpro under 1.11) was issued for the project or there is generally cooperation with private actors (commercial banks, companies, professional NGOs) in the implementation of FC (private sector as an instrument), the following evaluation question must be taken into account:				
12.4 In what respect was the use of public funds financially complementary?	No specification necessary			

Impact

Evaluation question	Specification of the question for the present project	Data source (or rationale if the question is not relevant/applicable)	Rating	Weighting (- / o / +)	Rationale for weighting
Evaluation dimension 13: Overarching developmental changes (intended)			3		
13.1 Is it possible to identify overarching developmental changes to which the programme should contribute? (Or if changes are foreseeable for the future, please be as specific as possible in terms of time.)	How has the deforestation rate in the parks developed? Has the deforestation rate in parks been lower since the start of the project than in comparable, unprotected forest areas?	MNP/FAPBM reports and reports from other organisations Satellite data analysis			
13.2 Is it possible to identify overarching developmental changes (social, economic, environmental and their interactions) at the level of the intended beneficiaries? (Or if changes are foreseeable for the future, please be as specific as possible in terms of time)		Reports from executing agency/KfW/FAPBM, interviews with other donors if applicable			
13.3 To what extent can overarching developmental changes be identified at the level of particularly disadvantaged or vulnerable parts of the target group to which the programme was set to contribute? (Or, if these are foreseeable for the future, please be as specific as possible in terms of time)		UNDP; NGO			
Other evaluation question 1	How has the removal and export of precious wood (especially rosewood), fauna (especially reptiles) developed and what has the government done about it?	Reports, other donors, NGO, MNP			

<p>Evaluation dimension 14: Contribution to overarching developmental changes (intended)</p>			3		
<p>14.1 To what extent did the programme actually contribute to the identified or foreseeable overarching developmental changes (also taking into account political stability) to which the programme was set to contribute?</p>		<p>Reports/satellite data on deforestation and biodiversity</p>			
<p>14.2 To what extent did the programme achieve its intended (possibly adjusted) developmental objectives? In other words, are the project impacts sufficiently tangible not only at outcome level, but at impact level? (e.g. drinking water supply/health effects)</p>		<p>Satellite data analysis</p>			
<p>14.3 Did the programme contribute to achieving its (possibly adjusted) developmental objectives at the level of the intended beneficiaries?</p>		<p>Discussions with MNP and target group</p>			
<p>14.4 Has the programme contributed to overarching developmental changes or changes in life situations at the level of particularly disadvantaged or vulnerable parts of the target group (potential differentiation according to age, income, gender, ethnicity, etc.) to which the programme was intended to contribute?</p>		<p>Discussions with MNP, FAPBM and other donors</p>			
<p>14.5 Which project-internal factors (technical, organisational or financial) were decisive for the achievement or non-achievement of the intended developmental objectives of the programme? (<i>Learning/help question</i>)</p>		<p>Discussions with all stakeholders, project documents</p>			
<p>14.6 Which external factors were decisive for the achievement or non-</p>		<p>Discussions with all stakeholders, project documents</p>			

achievement of the intended developmental objectives of the programme? <i>(Learning/help question)</i>					
14.7 Does the project have a broad-based impact? - To what extent has the programme led to structural or institutional changes (e.g. in organisations, systems and regulations)? (Structure formation) - Was the programme exemplary and/or broadly effective and is it reproducible? (Model character)	Was MNP positively influenced in its organisational structure?	Discussions with MNP, FAPBM, other donors			
14.8 How would the development have gone without the programme (developmental additionality)?					
Evaluation dimension 15: Contribution to (unintended) overarching developmental changes	Note: if there are no unintended effects: → No weighting → No evaluation				
15.1 To what extent can unintended overarching developmental changes (also taking into account political stability) be identified (or, if changes are foreseeable for the future, please be as specific as possible in terms of time)?		Interviews in situ with government, other donors, NGO			
15.2 Did the programme noticeably contribute to unintended (positive and/or negative) overarching developmental impact, or are such impacts foreseeable for the future?		Interviews in situ with government, other donors, NGO			
15.3 Did the programme noticeably contribute to unintended (positive or negative) overarching developmental		Interviews in situ with government, other donors, NGO, target group			

changes at the level of particularly disadvantaged or vulnerable groups (within or outside the target group; do no harm, e.g. not exacerbating equalities (gender/ethnicity)), or are such changes foreseeable for the future?		
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Sustainability

Evaluation question	Specification of the question for the present project	Data source (or rationale if the question is not relevant/applicable)	Rating	Weighting (- / o / +)	Rationale for weighting
Evaluation dimension 16: Capacities of participants and stakeholders			3		
16.1 Are the target group, executing agencies and partners able and willing on an institutional, personnel and financial level (ownership) to ensure that the positive effects of the programme continue over time (after the end of the promotion)?		MNP, government, other donors, NGO			
16.2 To what extent do the target group, executing agencies and partners demonstrate resilience to future risks that could jeopardise the impact of the programme?		MNP, government, other donors, NGO			
Evaluation dimension 17: Contribution to supporting sustainable capacities:			2		
17.1 Did the programme contribute to the target group, executing agencies and partners being able and willing on an institutional, personnel and financial level (ownership) to ensure that the	What is the level of acceptance among the local population for the protected areas?	Interviews in situ with stakeholders and other institutions			

positive effects of the programme continue over time and, where necessary, to curb negative effects?	What is the demand and how are the prices on the black market developing for poaching products?			
17.2 Did the programme contribute to strengthening the resilience of the target group, executing agencies and partners to risks that could jeopardise the effects of the programme?		Reports on ongoing projects; on-site interviews with executing agency and other discussion partners		
17.3 Did the programme contribute to strengthening the resilience of particularly disadvantaged groups to risks that could jeopardise the effects of the programme?		Reports on ongoing projects; on-site interviews with executing agency and other discussion partners		
Evaluation dimension 18: Durability of impacts over time			3	
18.1 How stable is the context of the programme (e.g. social justice, economic performance, political stability, environmental balance)? (<i>Learning/help question</i>)	How will the increasing effects of climate change and population growth affect biodiversity and forest cover?	Reports on ongoing projects; on-site interviews with executing agency and other discussion partners		
18.2 To what extent is the durability of the positive effects of the programme influenced by the context? (<i>Learning/help question</i>)		Reports on ongoing projects; on-site discussions with executing agency and other discussion partners		
18.3 To what extent are the positive and, where applicable, the negative effects of the programme likely to be long lasting?		Reports on ongoing projects; on-site discussions with executing agency and other discussion partners		
18.4 To what extent can the gender results of the programme be considered permanent (ownership, capacities, etc.)? (FC-E specific question)		It can be assumed that no significant gender effects were assumed in the project context from the few local community measures implemented.		