

Ex-post evaluation

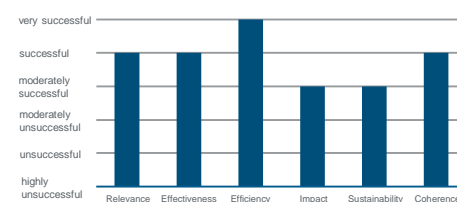
Visayas municipal forest management, Philippines

Title	Visayas municipal forest management		
Sector and CRS code	Forestry development (CRS code: 31220)		
Project number	2005 65 317		
Commissioned by	Federal Ministry for Economic Cooperation and Development (BMZ)		
Recipient/Project-executing agency	Department of Finance / Department of Environment and Natural Resources (DENR)		
Project volume/ Financing instrument	EUR 7.0 million (Budgetary grant + loan)		
Project duration	2009 - 2019		
Year of report	2022	Year of random sample	2021

Objectives and project outline

The objectives at outcome level were to maintain and rehabilitate forest and mangrove areas on the Philippine islands of Panay and Negros, as well as to increase income, particularly of the indigenous population. The objectives at impact level were to maintain or restore biodiversity and the ecosystem services of the forest and the mangroves of the two islands while improving the living conditions of participating households. To this end, measures were financed to rehabilitate and use forests and mangroves in a sustainable manner, increase (non-)agricultural incomes and rural infrastructure.

Overall rating:
successful



Key findings

The project is rated as successful overall. The project's objectives at outcome level were largely achieved (effectiveness). The project is characterised by very high efficiency. Nevertheless, the natural forest losses in the project provinces could not be reduced to the intended extent (impact).

- The project was geared towards the political priorities of both the Philippines and the German Federal Government. It was also in line with the Millennium Development Goals relevant at the time of conception as well as the Sustainable Development Goals applicable today. The project was strategically interlinked with other measures supported by the German Federal Government and used operational synergies with the Technical Cooperation where relevant (relevance).
- In the project area, there are clear improvements in terms of biodiversity and ecosystem services in the forest, as well as the living conditions of the people. The main effects were a positive effect on CO₂ sequestration, the provision of timber and non-timber products, improved water quality, and reduced soil erosion (impact). These positive effects could have been even stronger secured by using a consultant after the end of the project to support regional bodies in the planning and implementation of maintenance measures on afforestation areas after the completion of the actual project measures.
- The sustainability of the project depends heavily on the (non-)occurrence of (climate) risks with a larger extent of damage and the future legal certainty of land use titles in the Philippines.

Conclusions

- The rationale of forests that are subsequently underplanted with native tree species can be a cost-effective method of reforestation of degraded areas.
- The registration of the geocoordinates of afforestation areas makes it possible, among other things, to monitor their development with satellite support and to coordinate maintenance measures.
- When selecting tree species for afforestation areas, climate change-related changes in relevant parameters (precipitation, temperature, etc.) should be consistently considered in addition to other location factors.

Ex post evaluation – rating according to OECD-DAC criteria

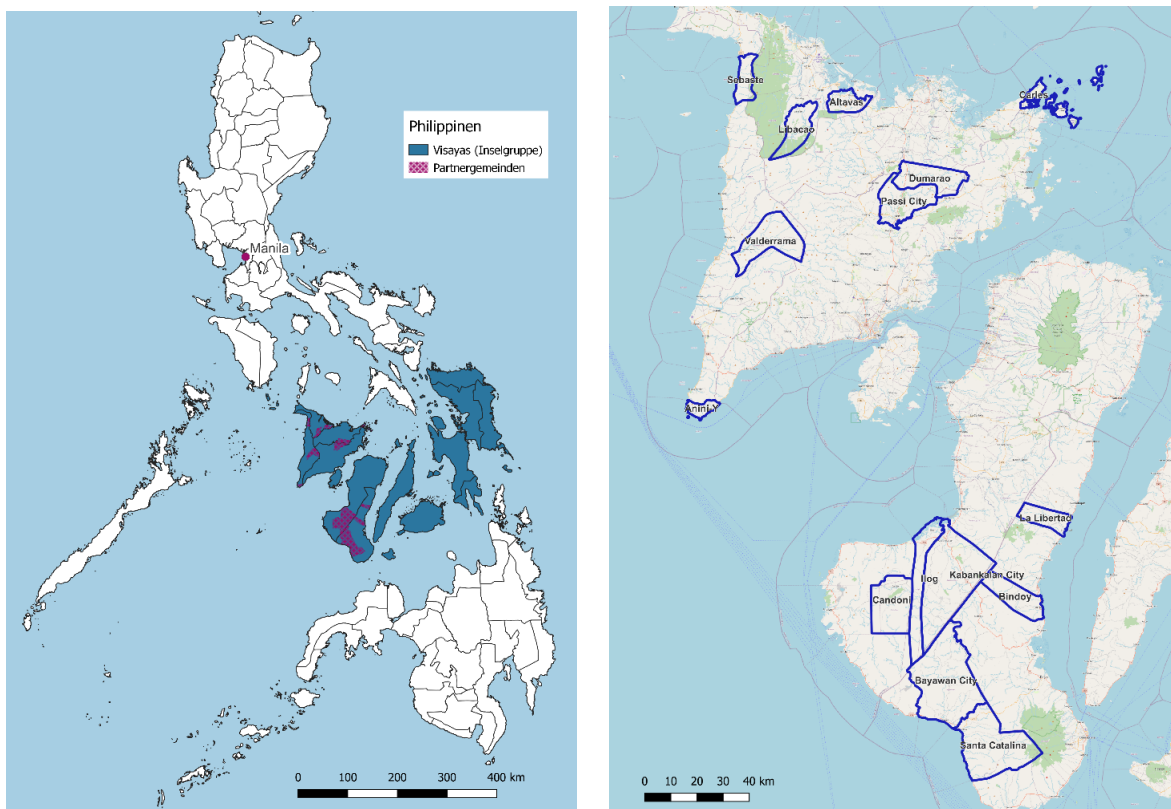
General conditions and classification of the project

At the time of the appraisal, the project was classified in the priority area of environmental policy, protection and sustainable use of resources as part of German DC with the Philippines. It was closely related to the content of the TC's Environment and Rural Development Programme in Leyte, Panay and Negros.

Brief description of the project

The FC measure aimed to maintain and rehabilitate forest and mangrove areas on Panay and Negros and to increase the income of the participating households. The project was implemented between July 2008 and December 2016 and comprised a financial volume of EUR 7 million in the form of a combined budget grant and loan. It included support for municipal forest and mangrove management on Panay and Negros – two larger islands in the Visayas island group. The executing agency of the project was the Department of Environment and Natural Resources (DENR). The project included measures for sustainable forest and mangrove rehabilitation and use, increasing agricultural and non-agricultural incomes and rural infrastructure. Forest and mangrove rehabilitation was loan-financed for grant-generating, income-generating and infrastructure measures. The loan components were processed by the Land Bank of the Philippines (LBP), the measures were implemented by the target group and the participating municipalities, which were advised by the DENR. The target group comprised approx. 7,000 directly beneficiary, poor households (a total of approx. 35,000 people, predominantly subsistence farmers), generally indigenous population groups in the six provinces of the islands of Panay and Negros. Other population groups in the participating local municipalities also benefited indirectly from infrastructure measures.

Map of the project country incl. project areas



Participating municipalities on Panay and Negros of the Philippines, © OpenStreetMap contributors & GADM, KfW's own data and visualization

Breakdown of total costs

		Inv. (planned)	Inv. (actual)
Investment costs (total)	EUR million	8.75	8.22
Counterpart contribution	EUR million	1.75	1.68
Debt financing	EUR million	7.00	6.54
<i>Of which budget funds</i>	<i>EUR million</i>	<i>7.00</i>	<i>6.54</i>

Rating according to OECD-DAC criteria

Relevance

The intervention logic of the project provided for the financing of packages of measures in four components:

1. sustainable management of forest and mangroves or their rehabilitation through (i) afforestation measures, (ii) enrichment planting combined with natural regeneration, (iii) substructure with rattan, (iv) mangrove afforestation in the coastal area and (v) agroforestry measures,
2. income-generating measures, in particular the production and processing of forestry and agroforestry products,
3. improving rural infrastructure to support resource management in remote areas (e.g., road construction and water supply); and
4. capacity development to convey important theoretical and practical knowledge to project staff and participating households, in connection with the above-mentioned packages of measures.

At outcome level, the aim was to maintain or rehabilitate forest and mangrove areas on Panay and Negros and to increase the income of the participating households. At impact level, this was intended to safeguard or restore biodiversity and ecosystem services of the forest and mangroves on Panay and Negros (CO₂ sequestration, provision of timber and non-timber products, improvement of water quality, reduction of soil erosion). At the same time, the aim was to improve the living conditions of the target group.

At the time of its design, the project was in line with the Millennium Development Goals (MDGs) – in particular MDGs 1 (“eradicate extreme poverty”) and 7 (“ensure environmental sustainability”) – as well as the Federal Ministry for Economic Cooperation and Development’s (BMZ) focus on environmental policy, protection, and sustainable use of resources as part of development cooperation with the Philippines. The priority area strategy paper valid at the time emphasised, among other things, the importance of municipal forest management promoted by the project and the sustainable development of forests and mangroves.

In addition, the project was embedded in the Philippine development agenda valid at the time of preparation and the medium-term development programme of the National Economic and Development Authority. The ten-point development agenda of the then President Arroyo aimed to create jobs in rural areas, including municipal forest management. At the same time, the medium-term development programme of the National Economic and Development Authority included improved management of natural resources as well as environmental and regional planning. The project was also in line with the Local Government Code, which laid the foundation for decentralisation and strengthening of administration at provincial and municipal level.

The primary executing agency, the Department of Environment and Natural Resources (DENR), has already carried out extensive afforestation campaigns nationwide since 1990 and had the necessary administrative capacity and institutional position to implement the project. This also applies to the Land Bank of the Philippines (LBP), which managed the loans under component 2 (income-generating measures). On the other hand, the staff and financial capacity of the local authorities to take advantage of opportunities to participate in the development of forest land use plans provided by the legislature and in the decision on the use of the forest in municipal areas

(via co-management agreements with the DENR) was rated as weak during the project appraisal. To make matters more difficult, unclear implementing rules were added to the participation processes. Its purpose was to integrate forest land selection into other land use and thus regulate the future management and rights of use of these stocks. As a result, the population was rarely involved in forest land use planning up to the time of the appraisal. The project took this problem into account by using an implementation consultant and corresponding capacity development measures.

Focus on needs and capacities of participants and stakeholders

The main problem identified by the project appraisal was the unsustainable subsistence agriculture and illegal use of natural resources, which was widespread in Panay and Negros, against the background of widespread poverty; at the time, around a third of the population in the affected provinces lived below the national poverty line, and in some regions even 43% of the local population compared to a national average of 24%. For the above-mentioned reasons, the local authorities and thus the local population were only involved to a limited extent in the administration of the forest areas in municipal areas and therefore had no direct interest in their long-term sustainable use. The project focused geographically on areas that were particularly affected by the degradation of natural resources at the time of the appraisal and concentrated here on poor, smallholder households as a target group; they generally belonged to indigenous population groups and were particularly vulnerable. They were to be integrated into the project through participatory approaches by the responsible local authorities. The core problem was therefore correctly identified, and the project was geared towards the needs and capacities of the target group. Nevertheless, from today's perspective, a stronger differentiation of the impact on the target group according to gender would have been indicated to make even greater use of the project's potential to improve the living conditions of women and men.

Appropriateness of design

The project's results logic provided for a combination of forest and mangrove protection and rehabilitation, income-generating measures, and improvement of rural infrastructure in order to enable the sustainable use of the forest and mangroves as well as an increase in the incomes of the participating households. In this way, the poverty-related pressure of use on forest and mangrove stocks was to be reduced. The participation of the population in forest management was also intended to provide an incentive for participating households to support the preservation of forest and mangrove areas in the long-term. In principle, this approach is appropriate to contribute plausibly to solving the core problem described above.

However, the objectives at impact and outcome level were not clearly formulated in the original concept. At outcome level at the time, the project aimed to improve the use of forests and mangroves and increase the incomes of the participating families to contribute to the sustainable preservation of forests and mangroves based on municipal forest management and other municipal land use titles at impact level and to improve the living conditions of the rural population of Panay and Negros in the project area. At the time of the project appraisal, this objective was appropriate, in principle. However, in order to differentiate more clearly between impact and outcome and to explicitly include the impacts to be sought from today's perspective (preservation or restoration of biodiversity and ecosystem services such as CO₂ sequestration), the target formulations for the ex-post evaluation were modified in accordance with KfW's template results matrix, which is valid today.

The objective at impact level is now: Preservation or restoration of biodiversity and ecosystem services of the forest and mangroves on Panay and Negros (CO₂ sequestration, provision of timber and non-timber products, improvement of water quality, reduction of soil erosion) while improving the living conditions of the participating households. In retrospect, the objective at outcome level is to maintain or rehabilitate forest and mangrove areas on Panay and Negros and to increase the income of the participating households. The project's design was suitable for contributing to this. It also addressed social, economic, and ecological dimensions in equal measure at impact and outcome level and thus pursued a holistic approach to sustainable development.

Response to changes/adaptability

The project was not conceptually adjusted during implementation, but the funds for afforestation were raised by 11% and for funds for training by 14% compared to the original cost and financing plan. The additional demand was financed by the Philippine government and local authorities. This adequately accounted for general cost increases and capacity deficits, particularly at the level of the participating municipalities, which resulted in higher training requirements.

Summary of the rating:

The project was geared towards the political priorities of both the Philippines and the German Federal Government. It was also consistent with the Millennium Development Goals relevant at the time of conception as well as the Sustainable Development Goals (SDGs) applicable today, which emphasise the necessity of ending poverty in all its forms everywhere (SDG 1) and the importance of sustainable forestry (SDG 15). The project's design was suitable for addressing the identified core problem – a strong pressure to use natural resources in view of the high prevalence of poverty. This also applies after the re-focusing of the target system as part of the ex post evaluation on the basis of the currently valid template results matrix. Substantial changes to the project's design were not necessary during implementation. From today's perspective, however, it would have been desirable to differentiate the target group's needs more strongly by gender to make even greater use of the project's potential to improve the living conditions of women and men in accordance with their respective needs. Overall, however, the relevance of the project fully meets expectations without significant shortcomings.

Relevance: 2

Coherence

Internal coherence

At the time of the appraisal, the project was classified in the priority area of environmental policy, protection, and sustainable use of resources as part of German DC with the Philippines. It was carried out in cooperation with TC's Environment and Rural Development Programme on Leyte, Panay and Negros. FC and TC were thus strategically dovetailed. In addition, operational synergies with TC emerged, particularly in the initial phase of the FC project's implementation: the results of the FC feasibility study, which was the basis of the project appraisal, required an intensive exchange of experience and advice with and between the Philippine partners, which led to delays (see *Efficiency*). Extensive regulations for issuing land titles to interested users played an important role in this. The complicated implementation rules and, in some cases, unclarified allocations of competence within the Philippine system made the entire preparation process and the conclusion of the loan agreement and the separate agreements more difficult. In view of this situation, FC and TC agreed to process the preparatory work of the FC project, such as the detailed clarification of project process organisational issues from July 2008 to June 2010 via the GTZ and German Development Service at the time. This enabled FC to quickly enter the operational implementation of the project after the contract was concluded.

With the dual objective of preserving or restoring biodiversity and ecosystem services (including CO₂ sequestration) of the forest and mangroves on Panay and Negros on the one hand, and, on the other hand, to contribute to improving the living conditions of a vulnerable, predominantly indigenous target group, the project was also consistent with international norms and standards to which German development cooperation is committed (in its form valid at the time of the appraisal and in its current form). This applies equally to the project's contribution to mitigating climate change and to the implementation of universal human rights. In view of this situation, the project was also in line with the current requirements in environmental and social affairs. However, regarding the promotion of gender equality, it fell short of the current requirements. No in-depth analysis was carried out on the question of how the project can contribute to gender equality (also see Relevance).

External coherence

With the National Greening Program (NGP) launched in 2011, the DENR pursued the goal of promoting reforestation in the Philippines nationwide. Up until 2019, the NGP reforested around 206,000ha in regions 6 and 7, where the project provinces were located. Although the project "only" added around 5,500 ha, it complemented the partner's own efforts and built on its experience. Restocking in mountainous areas turned out to be technically demanding, as dense grass and fern vegetation had formed here, which led to the depletion of the soil (decrease in nutrient content) and degradation of the sites due to regular fires. Only undemanding species such as acacia mangium can grow under such conditions and form a canopy relatively quickly. Due to the shade of the growing stock and the resulting microclimate, the dense grass vegetation disappears and allows the growth of natural regeneration. It would only be possible to achieve a similar effect by using herbicides. This Acacia mangium forest provides the conditions for other, primarily native tree species to be introduced or to naturally be seeded, which should be the main stock in the long term. Accordingly, the DENR established Acacia stocks on over 400ha on Negros Oriental, which had been successfully underplanted with indigenous tree species, especially from the Dipterocarpaceae family. The base of native species exhibited impressive growth dynamics and

thus demonstrated a technical opportunity to plant the large grassland areas in the Philippine hills with native tree species again. This successfully piloted DENR approach was therefore also adopted by the project.

In addition, experience from other donors in financing municipal forest management was incorporated into the project's design. However, due to the geographical division of labour, there were no established systems and structures in the project area that the project could have relied on. In addition, the project had to establish its own systems for monitoring and evaluation, learning and accountability with the DENR regional offices involved and the local authorities.

Summary of the rating:

The project was strategically interlinked with other DC measures supported by the German Federal Government and used operational synergies in relevant cases. It was also consistent with relevant norms and standards to which German DC is committed. This also applies to the current level of ambition, except for the requirements in the area of gender equality. In line with the principle of subsidiarity, the project also meaningfully complemented the partner's own efforts. Experience gained by other donors in the promotion of municipal forest management flowed into the project's design, but there was no operational synergy potential due to the geographical division of labour. In summary, in view of this situation, the coherence of the project fully meets expectations without significant shortcomings.

Coherence: 2

Effectiveness

Achievement of (intended) targets

The objective adjusted as part of the EPE was: preservation or rehabilitation of forest and mangrove areas on Panay and Negros as well as increasing the income of the participating households.

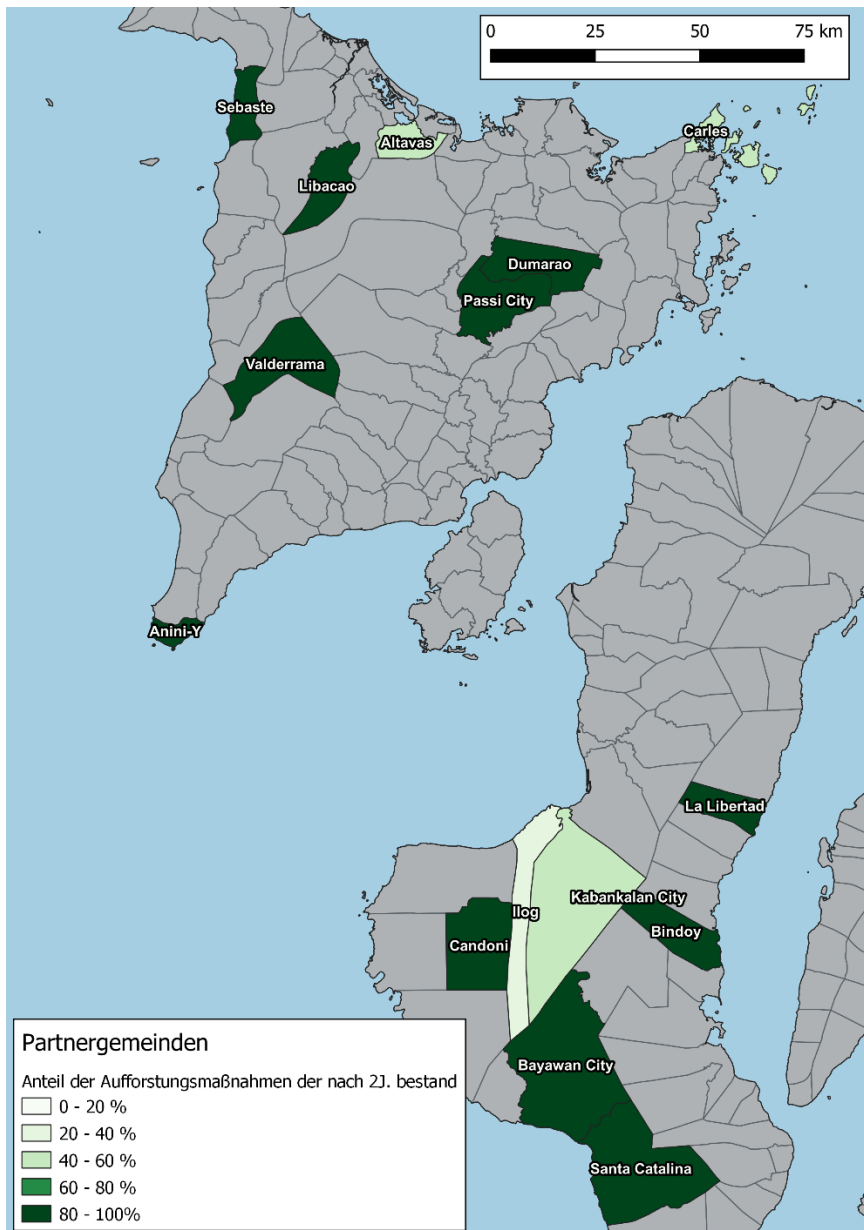
The target achievement at outcome level is summarised in the table below:

Indicator	Status during PA	Target value PA/EPE	Actual value at final inspection	Actual value at EPE
(1) Livelihood measures increase the income of participating households by an average of 30%	Baseline survey 06/2011: average per capita income: PHP 12,562	Increase of an average of 30%	Income from livelihood measures for participating households increased by between 60% and 360%	Significant positive income effect confirmed in focus group interviews, no new quantitative survey Achieved
(2) Income from forest management significantly improves families' monetary incomes	Revenue from forest land management (survey 06/2011): PHP 17,085/family or PHP 4,864/ha	Increase by 30%	According to final surveys, the annual family income of forest areas was increased by 25%	Positive income effect confirmed in focus group interviews, but with geographically high variance, no new quantitative survey Partially achieved
(3) Average timber growth for all species on the areas afforested by the project	n/-	Average timber growth for all species over 7 m ³ /ha on the afforestation areas	Average wood growth for all species over 7 m ³ /ha/year	Inspection of selected areas confirms expected stock development, no new quantitative survey Achieved

(4) 70% of the infrastructure created is still maintained six years after it was established	n/-	70% after six years	Maintenance and cost coverage of all infrastructure measures except for a sawmill	Inspection of selected infrastructure measures confirms good maintenance status Achieved
(5) Afforested/re-wilded/naturally regenerated forest and mangrove area in ha	n/-	Preservation or restoration of 9,000ha of mountain and coastal mangrove forests, which required a survival rate of over 80% for the seedlings	Measures on 9,317ha, of which 7,860ha accepted as successfully established	Inspection of selected areas confirms predominantly successful reforestation/rehabilitation, but below the initial target value Partially achieved

Contribution to achieving targets

Under the forest and mangrove management/rehabilitation component, a total of 9,000ha was to be established, either via (i) afforestation measures, (ii) enrichment planting with natural regeneration, (iii) substructure with rattan, (iv) mangrove afforestation in the coastal area or (v) agroforestry measures. Of the 9,317ha planted, 7,860ha (87.3%) were accepted as successfully established after a total of three inspections (the last one took place in the second year after planting). 1,457ha were rejected. The map on the following page shows the result at municipal level. The main reasons for rejection were high mortality (survival rate of seedlings below 80%) and destruction due to fire or typhoon (force majeure). In the municipalities of Altavas and Carles, which are located on the northern coast, Typhoon Yolanda wreaked havoc in November 2013. The targets were adjusted for both municipalities but were still missed by a significant amount. In addition, conflicts about land use rights with mining companies broke out in Carles in 2016, which led to the afforestation measures being suspended in the meantime. However, it was possible for them to resume after the DENR successfully settled the conflict. Furthermore, some areas had not been planted or had not been planted to the extent initially reported. The outputs achieved for the individual measures were as follows, in detail: (i) afforestation 1,933ha, (ii) enrichment planting with natural regeneration 1,887ha, (iii) rattan planting 1,094ha, (iv) mangrove afforestation 117ha and (v) agroforestry measures, which were the most extensive at 2,829ha. The degree of target achievement determined during the final inspection was confirmed during the EPE by means of an inspection of selected areas.



Share of successfully established afforestation areas in the total areas reforested by the project at municipal level, source: project monitoring & PGADM, KfW's own data.

In the hills, for component 1, afforestation took advantage of the DENR's innovative approach outlined in the Coherence section, piloted by the National Greening Program: the establishment of forests with fast-growing *Acacia mangium* was used to reduce dense grass and fern vegetation on degraded land and thus create the conditions for later planting with indigenous tree species. With this type of reforestation, it was possible to dispense with the otherwise necessary use of herbicides in the hills. The DENR therefore regards it as the only technically viable way to reforest large areas of grassland in a cost-effective manner in the long term. In addition, this form of forest management made it possible to move away from use of clear-cutting and towards the idea of a permanent forest. The approach was successful in the project areas: the fern vegetation was pushed back so that the *Acacia mangium* could be planted with indigenous dipterocarpaceae. However, experience from the project suggests that large-scale implementation includes a comprehensive monitoring and control system that also records the required maintenance measures. From today's perspective, monitoring can be supported by satellite-based procedures. However, the geographic coordinates of the afforestation areas must be collected. This was not done systematically as part of the project. In view of the limited technical capacities at the level of the local authorities, the integration of support for the phase after the end of the project should also be considered in future similar

projects to provide the municipalities with technical support with regard to implementation and monitoring until newly stocked areas are securely established.

Larger areas of mangroves were destroyed in the project area by the typhoon of November 2013. The extent to which this experience led, among other things, to future climate risks being systematically considered when selecting afforestation areas for the project cannot be assessed ex post. However, the mangrove example showed that the intended areas for afforestation competed with other uses, in particular fishing. Fishing use was a priority for users, meaning that areas for mangrove afforestation were only available to a limited extent.

Regarding infrastructure measures and measures to improve livelihoods, a total of 18 projects with a total financial volume of PHP 157 million (EUR 2.41 million) were implemented by the 15 local authorities involved in the project, of which PHP 137,343 million (EUR 2.11 million) were financed by FC loans. The largest part of these investments went to the acquisition of machines for road construction, drinking water systems and road construction measures. The purchased machinery (except for a sawmill¹) and the facilities for the drinking water supply are fully functional and were still maintained by the municipalities at the time of the EPE. However, municipalities with low capital were only prepared to take out loans and make efforts to participate in the project to a limited extent. This meant that the population living there could only benefit from the project to a limited extent.

The capacity-building component focused on technical training, with a focus on acquiring manual skills that can sustainably improve the participants' livelihoods in the long term (e.g., fish farming, sawmill techniques, etc.). In total, more than 7,000 participants (59% men and 41% women) took part in 260 training courses as well as 12 other educational events, including a training trip to Germany. During focus group interviews in five of the 15 participating municipalities, the interviewees confirmed the positive income effects already identified during the final inspection as part of the EPE.

Overall, the project made a clearly visible contribution to achieving the objectives at outcome level. Nevertheless, effects at impact level regarding the reduction of deforestation and the rehabilitation of forest areas must also be seen in connection with interventions by the Philippine government under the National Greening Program and TC, which can no longer be clearly differentiated ex post (due to the lack of geocoordinates of the FC-financed areas, see above). Furthermore, the positive impact of the project on the income and living conditions of the vulnerable target group and – in addition – other parts of the population in the participating regional bodies was clearly confirmed in focus group interviews during the EPE. In line with the project's design, the combination of measures to protect and rehabilitate natural resources, generate income, and improve rural infrastructure had a synergistic effect in line with the objective.

Quality of implementation

As described above, the project's objectives were essentially achieved in a qualitatively appropriate manner, but in some cases significantly delayed (cf. *Efficiency*).

Unintended consequences (positive or negative)

The project did not result in unintended negative impacts. On a positive note, however, according to the focus group interviews conducted as part of the EPE in the participating municipalities, parts of the population also benefited from the project that were not part of the primary target group (e.g., through improved infrastructure or local economic effects). This was achieved, for example, by the municipalities using road construction equipment financed by the project to also improve the connection of hard-to-reach areas without afforestation areas. In addition, the income increases generated by the measures implemented as part of the project were not only used by the participants in a consumption-based manner, but also invested, for example, in the education of children and the further expansion of production capacities such as an aquaculture plant, thus also contributing to the economic development of the participating regional bodies in the longer term.

Summary of the rating:

The project's objectives at outcome level were achieved to a large extent. Cooperation between FC and TC in the initial phase and close support from the implementation consultant played a decisive role in this. Focus group

¹A sawmill in the municipality of Bindoy was financed for approx. EUR 15,000 and built in 2013. It was planned as a pilot project to demonstrate sustainable marketing and value creation concepts for forestry products on the Visayas. At the time of the EPE, the DENR in Manila still did not grant the sawmill an operating permit.

interviews also indicate various unintended positive effects. Overall, the effectiveness is therefore rated as successful. Nevertheless, the use of a consultant after the end of the project to support longer-term, consistent monitoring of the afforestation areas until they had been established could have been more intensively supervised by using satellite-based methods, thus increasing the target achievement under component 1 even further.

Effectiveness: 2

Efficiency

Production efficiency

The total costs of the project amount to EUR 8.22 million. Of this amount, EUR 1.68 million was provided as a counterpart contribution by the Philippine government and the participating local authorities. EUR 6.54 million were financed from FC. This includes grants of EUR 2.54 million and a budget loan of EUR 4 million. The remaining residual funds are to be reduced: the Federal Ministry for Economic Cooperation and Development (BMZ) has received a corresponding application at the time of the EPE.

A total of EUR 4.685 million was earmarked for direct investments from FC, the largest share of which (EUR 2.440 million) went to infrastructure and livelihood measures (loan-financed). At the time of the audit, EUR 2.245 million was planned for afforestation measures (grant-financed). However, during project implementation, this was adjusted and the budget lines for afforestation increased by 11% and training by 14%. Overall, the costs of the project increased by six percent. The resulting additional demand was covered by additional funds from the Philippine government and counterpart contributions from the municipalities.

Regarding the planted or reforested area under component 1, the costs were around EUR 289/ha. This is considered reasonable. For comparison: only the seedlings for the restocking of bark beetle disaster areas in the German low mountain ranges cost at least EUR 2,000/ha in the best case (bulk planting in connection with natural regeneration). There are also expenses for tree shelters, staff deployment and care measures. On a global average, WWF even assumes around USD 2,300/ha for the reforestation of land.² An assessment of the production efficiency among the other components of the project is not possible ex post, as the outputs were not recorded precisely in quantitative terms (e.g., it is not precisely documented how many km of rural roads were built/repaired).

While the project could only be implemented with a delay compared to the original design (due to the additional need for additional coordination at the start of the project as a result of complicated implementation regulations, decisions that were not always understandable and unclear distribution of competences in the DENR's area of responsibility), the individual outputs were delivered on time.

Consulting costs corresponded to around 12% of the total costs of the project and can therefore be rated as appropriate. On average, the proportion of consulting costs for completed FC forestry projects in Asia has been around 15% in recent years.

Allocation efficiency

About the allocation efficiency of the project, it must be evaluated in particular whether the rehabilitation of forest areas could have been carried out in a more beneficial manner. As described in the Effectiveness section, dense grass and fern vegetation had formed on the areas to be reforested, particularly in mountainous areas, which regularly prevents natural regeneration: on the one hand, because wild plants get insufficient light, and on the other, because the vegetation encourages the formation and spread of fires. Natural succession can also only succeed if corresponding seed trees are available, which is regularly not the case on degraded areas. In the present context, it was therefore necessary to combat grass and fern vegetation and subsequently replenish the stock. Herbicides were used as standard in the Philippines before the areas were restocked with the target tree species. However, this approach is relatively cost- and labour-intensive. The DENR had therefore piloted an alternative approach, which was adopted by the project. As explained above, a forest with *Acacia mangium* was created,

² Why Trillion Trees. (2022) Defining the Real Cost of Restoring Forests [White Paper]. https://trilliontrees.org/wp-content/uploads/2022/08/Trillion-Trees_Defining-the-real-cost-of-restoring-forests.pdf

which formed a canopy comparatively quickly, suppressing the growth of grasses and ferns, which were later underplanted with the native target tree species. This maximised the allocation efficiency of the project.

Summary of the rating:

As part of the project, land was reforested at an extremely low cost in international comparison. With the establishment of a forest to suppress grasses and ferns, which was subsequently underplanted with the target tree species, a highly efficient approach was also chosen, from an allocation perspective. From an efficiency point of view, the project is therefore rated as very successful.

Efficiency: 1

Impact

Overarching developmental changes (intended)

The objectives at impact level, which were adjusted as part of the EPE, were: Preservation or restoration of biodiversity and ecosystem services of the forest and mangroves on Panay and Negros (CO₂ sequestration, provision of timber and non-timber products, improvement of water quality, reduction of soil erosion) while improving the living conditions of the participating households.

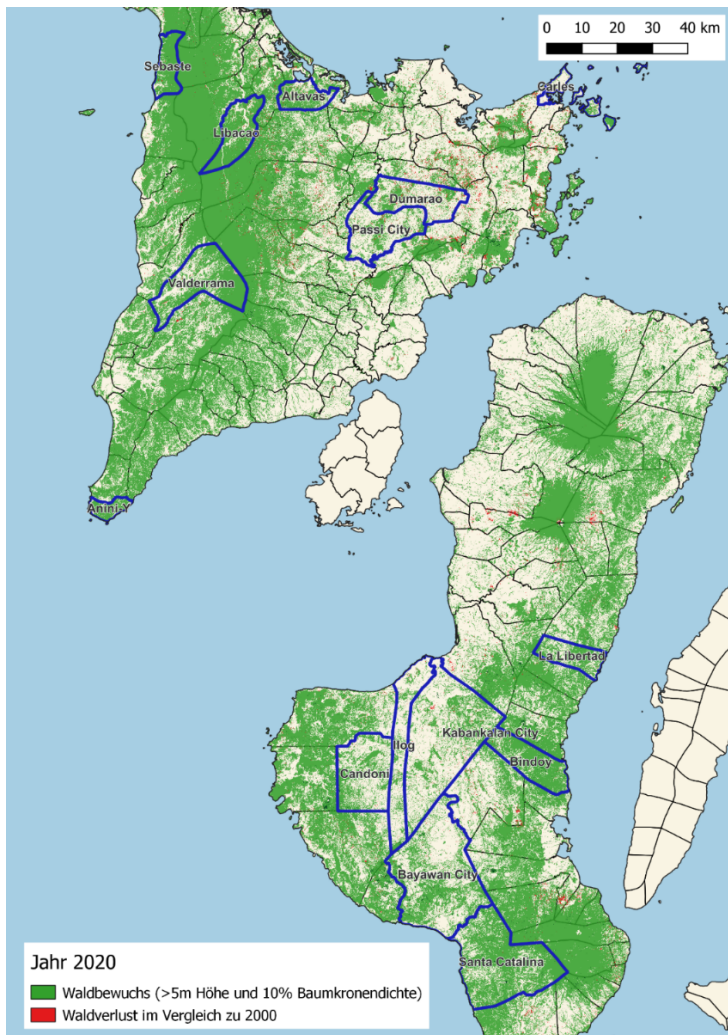
Target achievement at the impact level can be summarised as follows:

Indicator	Status PA	Target value at PA	(Optional) actual value at final inspection	Actual value at EPE
(1) Reduction of natural forest losses in the provinces of the project area by 50%	12,818 ha/year	50% reduction	Average 2,900 ha/year between 2010 and 2015 = 77.4% reduction ³	Compared to the five years before the start of the project (2005–2009), deforestation increased by an average of 11.1% during the project. In the five years after the end of the project (2017–2021), forest loss was even 55.9% above the values before the start of the project. Not achieved
(2) The social and economic development indicators (livelihood conditions) in the region improved significantly	N/A	N/A	Increase in average per capita income by 27.2%, 16% of the population in the target area with access to drinking water systems through taps, an average reduction in time of 10 to 30 minutes spent on trips to markets. According to final inspection the project also reduced the incidence of poverty from 74% to 61%, with the Philippine Statistics Authority increasing the threshold by 28.5% in 2015.	Positive development of livelihood conditions was clearly confirmed in focus group interviews, no new quantitative survey. Achieved

³ The final inspection identified the change in forest loss by comparing data from the state statistics authority NAMRIA from 2010 with satellite images from Google Earth from 2015. Ex post, however, it is not possible to assess the extent to which the two data records are actually comparable (in particular with regard to the collection methods used). For the EPE, the forest loss rates were therefore recalculated on the basis of data from Global Forest Watch. The trend identified during the final inspection was confirmed, but at the same time a renewed increase in the deforestation rate after the project was completed was also recognised.

<p>(3) Biodiversity and water quality have improved; soil erosion has decreased from 25 tonnes per ha to 10 tonnes per ha</p>	<p>N/A on biodiversity, soil erosion 25 t/ha</p>	<p>Improvement of biodiversity and water quality, reduction in soil erosion from 25 t/ha to 10 t/ha</p>	<p>2016 study on biodiversity: higher biodiversity in the project area than outside. Study on water quality, water run-off and soil erosion on eight afforestation areas in six municipalities: 70% of respondents reported better water quality + low sedimentation, 66% reported longer water availability, according to the Watershed Erosion Prediction Project (WEPP) Erosion < 10 t/ha/year</p>	<p>The inspection of selected areas confirms an increase in biodiversity on afforestation areas and a reduction in soil erosion. No renewed quantitative survey. Achieved</p>
<p>(4) Development of forest and mangrove areas in the project area compared to development in the project provinces as a whole.</p>	<p>N/A</p>	<p>Preservation or restoration of 9,000ha of mountain and coastal mangrove forests.</p>	<p>Measures on 9,317ha, of which 7,860ha were accepted as successfully established.</p>	<p>Since there is public, homogeneous (and thus comparable) forest vegetation geo-data for the Philippines – provided by Global Forest Watch – only for the years 2000 and 2020, only a rough trend over these two decades can be calculated. Overall, the reduction in forest area in the project communities was 1.05% during this period, while in the remaining areas of the project provinces it was 1.29%. Achieved</p>
<p>(5) CO2 sequestration in the project areas</p>	<p>0 t/year</p>	<p>N/A</p>	<p>47,800 t/year</p>	<p>No recalculation of the value determined at final inspection. Achieved</p>

Regarding the indicators, it should be noted that the intended broad impact of the project expressed in indicator 1 was in the sense of the template results matrix valid today, but the project did not provide for any measures to actually achieve this broad impact.



Development of forest and mangrove areas in the project communities between 2000 and 2020 compared to development in the project provinces as a whole (see indicator 4). © Potapov et al. (2020) & GADM. KfW's own data

Contribution to overarching developmental changes (intended)

Contrary to the intention, natural forest losses in the provinces of the project area increased further during the project term, which increased even further after the project was completed. Nevertheless, it was possible to improve or restore biodiversity and ecosystem functions of the forest in the project areas. However, there is no complete overview of the geodata for the afforestation areas of the project. A GIS-based analysis of the development of forest and mangrove areas in the project area compared to the project provinces as a whole is therefore not possible. This also prevents a distinction between the project's contribution to the intended preservation or restoration of biodiversity and ecosystem services in the forest and the impact of other interventions such as the National Greening Program.

Focus group interviews as part of the EPE showed that the living conditions of the participating vulnerable households improved significantly during the project term. Nevertheless, the Philippines as a whole and the project provinces have demonstrated positive socio-economic development overall during the term of the project. It is therefore not possible to clearly define ex post to what extent the improvement in the living conditions of the participating households can be attributed to the project or to the overall positive socio-economic development.

The project has had a broad impact by pushing the completion of forest area use plans and the conclusion of co-management/partnership agreements between the DENR and local authorities beyond the FC-financed afforestation areas.

Contribution to impact (unintended)

The project's contributions to unintended overarching developmental changes cannot be identified.

Summary of the rating:

There are clear improvements in the project area in terms of biodiversity and ecosystem services in the forest, as well as the living conditions of the people. However, it is not clear to what extent these improvements can be attributed to the project or factors outside the project. However, in view of the above-average development of the forest areas newly cultivated by the project and the link between participating households' involvement in the project and their improved living conditions, a positive contribution of the project to the aforementioned improvements can be plausibly assumed. Nevertheless, it was not possible to sustainably reduce the natural forest losses in the project provinces overall in line with the intended broad impact of the project. This is largely because this objective was not taken into account in the project design. No opportunities for knowledge transfer to the remaining provincial areas or other multipliers have been established. Regarding development effectiveness, the project is therefore rated as only moderately successful.

Impact: 3

Sustainability

Capacities of participants and stakeholders

At the time of the EPE, the project measures had been completed for six years. When selected afforestation areas and financed infrastructure measures were inspected, they were generally in good condition. For example, the DENR continued to manage the areas newly cultivated as part of the project and ensured the underplanting of the forests created by the project with indigenous tree species from its own funds. In addition, the DENR adopted the project's approach of initially covering degraded areas in mountainous regions with *Acacia mangium* to reduce grass and fern vegetation, and then developing forests that have vegetation similar to the original flora by means of underplanting, including outside the project area.

The infrastructure measures put in place were also maintained in good condition at the time of the EPE. In the municipalities, for example, tools were available for smaller-scale maintenance measures, such as on rural roads, as well as funds for commissioning companies if major repairs were needed.

While it can generally be assumed that the parties involved possess sufficient capacity to deal with locally limited external shocks (such as landslides on afforestation areas or road damage because of heavy rainfall), this does not apply in the event that risks with a greater extent of damage occur (such as after a strong typhoon). The target group is also still vulnerable to external economic shocks, as was recently the case due to the interruption of value chains as a result of the COVID-19 pandemic.

Contribution to supporting sustainable capacities

Through technical support measures – in particular the training of project participants – the project has contributed to the capacities of the project participants described above. Financial resources for maintenance measures on afforestation areas and maintenance of infrastructure are also provided entirely from the Philippine state budget or the budgets of the local authorities to an appropriate extent.

Durability of impacts over time

Faster awarding of land use titles was seen as an important prerequisite for achieving the intended objectives of the project during the project appraisal. At the start of the project, land use titles had only been allocated to 1,758ha. This represented 19.5% of the target of 9,000ha. By supporting the project and TC, it was possible to significantly accelerate the awarding of land titles and increase them to 6,110ha, but at the time of the final inspection, around one third of the targeted areas were still without any formal security of the rights of use. It can be assumed that this only changed slightly by the time of the EPE, as the awarding of land use titles in the project provinces had barely progressed at national or regional level after the project was completed (compared to 2015, the area for which land use titles were issued in 2020 was only around 2.5% larger). In individual cases, however, this can no longer be traced for the areas supported by the project, as there is no complete overview of these

areas. In any case, the awarding of land use rights remains a prolonged bureaucratic process, which is not always handled the same way in the different provinces. Therefore, the erratic and not always comprehensible practices in the awarding of land use rights contributed to a widespread mistrust of smallholders towards DENR decision makers located at central level. It should also be noted that land use permits can only be issued for 25 years and then extended for a further 25 years. For long-term investments, as is usual for production periods of sustainable forest management, 25 years must be viewed as too short. Users therefore lack a real incentive to invest in long-term natural forest stocks that are based on significantly longer production periods. This incentive is required, however, not least because the establishment of semi-natural mixed forests is generally regarded as a suitable method for mitigating climate risks in forests. Panay and Negros are particularly exposed to these. In the medium term, the project measures had a positive impact on the local microclimate, a reduction in the risk of erosion and an improvement in the water supply. However, these successes are fragile and can be wiped out by natural hazards, which occur more frequently due to climate change (typhoon, fire in prolonged dry phases). In view of the hesitant awarding of land use permits and their time limitation, the extent to which users are once again willing to commit to the establishment of adapted forest stocks in the event of a natural disaster is at least questionable.

Summary of the rating:

The parties involved and those affected generally have the institutional, personnel and financial capacities necessary for sustainable use of the implemented measures. The project provided them with appropriate support in obtaining them. At the same time, they have sufficient resilience to deal with small external shocks. However, in the event of risks with a greater extent of damage (large-scale natural disasters, profound economic crisis), the parties involved and those affected needed renewed external support. Due to the hesitant awarding of land use titles and their limited period, the incentive for the target group to commit to the establishment of semi-natural forests in the long-term is also undermined. Overall, the project's sustainability is therefore only rated as moderately successful.

Sustainability: 3

Overall rating: 2

The project was geared towards the political priorities of both the Philippines and the German Federal Government. It was also in line with the Millennium Development Goals relevant at the time of conception as well as the Sustainable Development Goals (SDGs) that apply today. The project was strategically interlinked with other DC measures supported by the German Federal Government and used operational synergies with TC where relevant. It was also consistent with relevant norms and standards to which German DC is committed. The project's objectives at outcome level were achieved to a large extent. In addition, clear improvements can be observed in the project area in terms of biodiversity and ecosystem services of the forest as well as the living conditions of the people, although the natural forest losses in the project provinces as a whole could not be reduced to the intended extent. Although the sustainability of the project is heavily dependent on the (non-)occurrence of (climate) risks with a greater extent of damage and the future legal certainty of land use titles in the Philippines, the project is rated as successful overall.

Contributions to the 2030 Agenda

The project contributed to achieving the SDGs, which emphasise the need to end poverty in all its forms everywhere (SDG 1) and the importance of sustainable forestry (SDG 15). The project was implemented with a geographical division of labour with other donors. Economic, ecological, and social criteria were addressed equally by the project.

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

The project had the following strengths and weaknesses in particular:

- Addressing economic, ecological, and social factors at the same time made it possible to reduce the pressure of use on (natural) forest stocks and improve the living conditions of the vulnerable target group.
- Due to the establishment of forests with *Acacia mangium*, which were subsequently underplanted with indigenous tree species, it was possible to reforest degraded areas in the hills cost-effectively and without the use of herbicides. However, these areas also require a certain level of maintenance until a secure stock is built up.
- The infrastructure measures implemented as part of the project are used and continuously maintained. Sufficient funding is available from the budget(s) of the regional bodies.
- The extent to which climate risks were taken into account in the selection of afforestation areas could not be assessed ex post.

Conclusions and lessons learned:

- The rationale of forests that are subsequently underplanted with native tree species can be a cost-effective method of reforestation of degraded areas.
- The registration of the geocoordinates of afforestation areas makes it possible to monitor their development with satellite support and coordinate maintenance measures, among other things.
- By using a consultant after the end of the project, regional bodies can be supported in the planning and implementation of maintenance measures on afforestation areas.
- Climate risks must be consistently taken into account when selecting afforestation areas and – in conjunction with other location factors – the work with the trees used there. In addition, long-term land use titles are required for the corresponding areas to provide the population with an incentive for sustainably managing them in the sense of the idea of a permanent forest.

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

Data sources and analysis tools:

(digital) databases, on-site data collection, partner monitoring data, GPS data, satellite images, focus group interviews, digital analysis tools

Interview partners:

Project-executing agency, target group, implementation consultant

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 considered. 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:

There is no geodata on the afforestation areas financed under the project.

Methods used to evaluate project success

A six-point scale is used to evaluate the project according to OECD DAC criteria. 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).

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Target system and indicators annex

Project objective at outcome level		Rating of appropriateness (former and current view)			
During project appraisal: Improving the use of forests and mangroves, and increasing the incomes of participating families.		Appropriate at the time of the PA. Modification during the EPE to better differentiate between impact and outcome, and more explicitly include the impacts to be achieved from today's perspective (maintenance or restoration of forest and mangrove areas) in accordance with the valid sample impact matrix.			
During EPE (if target modified): Preservation or rehabilitation of forest and mangrove areas on Panay and Negros as well as increasing the income of the participating households.					
Indicator	Rating of appropriateness (for example, regarding impact level, accuracy of fit, target level, smart criteria)	PA target level Optional: EPE target level	PA status (year)	Status at final inspection (year)	Optional: Status at EPE (2022)
<p>Indicator 1 (PA): Income from livelihood measures increases by an average of 30% among participating households</p> <p>Indicator 1 (EPE): Livelihood measures increase the income of participating households by an average of 30%</p>	Appropriate, in principle. At the time of the PA, however, it was not yet possible to generate income from the livelihood measures supported by the project. The formulation of the indicator is therefore slightly adjusted for the EPE. However, differentiation between income increases from livelihood measures and other sources/effects may be methodologically difficult depending on the composition of the total income of the participating households.	Increase by 30%	Baseline survey 06/2011: average per capita income: PHP 12,562	Income from livelihood measures for participating households increased by between 60% and 360%	<p>Significant positive income effect confirmed in focus group interviews, no new quantitative survey</p> <p>Achieved</p>
Indicator 2 (PA): Income from forest management significantly improves families' monetary incomes	Appropriate (corresponds to the specification of the currently valid sample impact matrix).	Increase by 30%	Revenue from forest land management (survey 06/2011): PHP 17,085/family or PHP 4,864/ha	According to final surveys, the annual family income from forestry areas was increased by 25%.	Positive income effect confirmed in focus group interviews, but with geographically high variance, no new quantitative survey

					Partially achieved
<p>Indicator 3 (PA): the increase in volume and value of plantings corresponds to the application estimates in 75% of cases (at the time of the final inspection)</p> <p>Indicator 3 (EPE): Average wood growth for all species on the areas afforested by the project</p>	<p>Inappropriate: a target level for volume and value growth must be defined in the applications independent of corresponding estimated values (if the quality of estimated values is not consistently assured). In addition, the price of wood cannot be influenced by the project. The indicator was therefore adjusted for the EPE.</p>	<p>75% of estimates</p> <p>EPE: Average wood growth rate for all species over 7 m³/ha in the afforestation areas</p>	<p>Net timber prod. 7 m³/ha & year, with gross profit of PHP 23,600 per year</p>	<p>Average wood growth for all species over 7 m³/ha/year, value growth of PHP 51,800</p>	<p>Inspection of selected areas confirms expected stock development, no new quantitative survey</p> <p>Achieved</p>
<p>Indicator 4 (PA): 70% of the infrastructure created is still maintained six years after it was established</p>	<p>Appropriate.</p>	<p>70% after six years</p>	<p>n/a</p>	<p>Maintenance and cost coverage of all infrastructure measures with the exception of a sawmill</p>	<p>Inspection of selected infrastructure measures confirms good maintenance status</p> <p>Achieved</p>
<p>NEW – Indicator 5: Re-forested/rewilded/naturally regenerated forest and mangrove area in ha.</p>	<p>Re-recorded based on the standard specified in the current sample impact matrix. Target level was already defined at the time of the PA, but not explicitly anchored in the M&E framework.</p>	<p>Preservation or restoration of 9,000ha of mountain and coastal mangrove forests.</p>	<p>0 ha</p>	<p>Measures on 9,317ha, of which 7,860ha were accepted as successfully established.</p>	<p>Inspection of selected areas confirms predominantly successful reforestation/rehabilitation, but below the initial target value</p> <p>Partially achieved</p>

Project objective at impact level		Rating of appropriateness (former and current view)			
During project appraisal: Sustainable preservation of forests and mangroves based on CBFMAs and other municipal land use titles, and improvement of the living conditions of the rural population of Panay and Negros in the project area.		Appropriate at the time of the PA. Modification during the EPE to better differentiate between impact and outcome, and more explicitly include the impacts to be achieved from today's perspective (preservation or restoration of biodiversity and ecosystem services such as CO ₂ sequestration) in accordance with the valid sample impact matrix.			
During EPE (if target modified): Preservation or restoration of biodiversity and ecosystem services of the forest and mangroves on Panay and Negros (CO ₂ sequestration, provision of timber and non-timber products, improvement of water quality, reduction of soil erosion) while improving the living conditions of the participating households.					
Indicator	Rating of appropriateness (for example, regarding impact level, accuracy of fit, target level, smart criteria)	Target level PA / EPE (new)	PA status (year)	Status at final inspection (year)	Status at EPE (2022)
Indicator 1 (PA): Reduction of loss of natural forest cover in the provinces of the project area by 50%	Appropriate. Development of the forest area at regional level in accordance with the current sample impact matrix to be recorded as standard practice. To be compared with indicator 6 (NEW).	50% reduction	According to Final inspection 12,818 ha/year (reference period?), in accordance with PP 3,400 ha/year	Average 2,900 ha/year between 2010 and 2015 = 77.4% reduction	Compared to the five years before the start of the project (2005–2009), deforestation increased by an average of 11.1% during the project. In the five years after the end of the project (2017–2021), forest loss was even 55.9% above the values before the start of the project. Not achieved
Indicator 2 (PA): the social and economic development indicators (livelihood conditions) in	Appropriate. According to the current sample impact matrix, income effects associated with the project must be recorded as standard practice. The indicator goes beyond this. Baseline?	n/-	n/a	Increase in average per capita income by 27.2%, 16% of the population in the target area with access to tap drinking	Positive development of livelihood conditions was clearly confirmed in focus group interviews, no new

the region have improved significantly				water systems, reduced time to market by an average of 10 to 30 minutes	quantitative survey. Achieved
Indicator 3 (PA): The local population sees the project's impacts as predominantly positive	In view of the vulnerability of the target group, it also seems fundamentally sensible from today's perspective to review their attitude towards the project and its impacts. However, the chosen methodological approach is unclear. Since it is also assumed that the local population will rate the impacts of the project positively if their living conditions improve (indicator 2), the indicator is obsolete from today's perspective.	At least 67% approval	n/-	Improved living conditions for 70% of those affected by the project	Not applicable (cf. explanation in column "Rating of appropriateness")
Indicator 4 (final inspection): Biodiversity and water quality have improved, soil erosion has decreased from 25 tonnes per ha to 10 tonnes per ha.	Generally appropriate (included as a possible indicator in the current sample impact matrix). However: Biodiversity monitoring based on which species + baseline population sizes? Baseline infiltration rate or water runoff, soil erosion (if necessary, vegetation density as proxy)? Indicator not yet included in PA, when was it added?	Improvement of biodiversity and water quality, reduction in soil erosion from 25 t to 10 t/ha	n/-	2016 study on biodiversity: higher biodiversity in the project area than outside, see final inspection for details. Study on water quality, water runoff and soil erosion on eight afforestation areas in six LGUs: 70% of respondents reported better water quality + low sedimentation, 66% reported longer water availability, according to WEPP erosion < 10 t/ha/year	Since there is only public, homogeneous (and thus comparable) forest cover geodata for the Philippines for the years 2000 and 2020, it is only possible to calculate a broad trend over these two decades. Overall, the reduction in forest area in the project communities was 1.05% during this period, while in the remaining areas of the project provinces it was 1.29%. Achieved
Indicator 5 (final inspection): the social and economic development indicators (livelihood conditions) in the region	Indicator not yet included in PA, when & why was it added? Extended indicator 2, is merged with this for the EPE (if necessary, using https://www.adb.org/sites/default/files/publication/682851/mapping-poverty-satellite-imagery-philippines.pdf).	Improvement	n/-	Cf. Indicator 2. According to final inspection the project also reduced the incidence of poverty	Merged with indicator 2

<p>have improved significantly.</p>				<p>from 74% to 61%, with the Philippine Statistics Authority increasing the threshold by 28.5% in 2015. References unclear!</p>	
<p>NEW – indicator 6: Development of forest and mangrove areas in the project area compared to development in the project provinces as a whole.</p>	<p>Re-recorded based on the standard specified in the current sample impact matrix.</p>	<p>Preservation or restoration of 9,000ha of mountain and coastal mangrove forests.</p>	<p>n/-</p>	<p>Measures on 9,317ha, of which 7,860ha were accepted as successfully established.</p>	<p>Since there is only public, homogeneous (and thus comparable) forest cover geodata for the Philippines – provided by Global Forest Watch – for the years 2000 and 2020, it is only possible to calculate a broad trend over these two decades. Overall, the reduction in forest area in the project communities was 1.05% during this period, while in the remaining areas of the project provinces it was 1.29%. Achieved</p>
<p>NEW – indicator 7: CO₂ sequestration in the project.</p>	<p>Re-recorded based on the standard specified in the current sample impact matrix.</p>	<p>Target CO₂ sequestration through the preservation or restoration of 9,000ha of forest + mangroves to be determined during the EPE.</p>	<p>0 ha</p>	<p>47,800 t/year</p>	<p>No recalculation of the value determined at final inspection. Achieved</p>

Risk analysis annex

All risks should be included in the following table as described above:

Risk	Relevant OECD-DAC criterion
Low willingness, in particular for low-capital communities, to raise loans to finance livelihood measures	Effectiveness
High project complexity requires close coordination/management of the participants	Effectiveness, efficiency

Recommendations for operation annex

No recommendations for operation were made in the final inspection report. As a result, this annex is omitted

Project measures and their results annex

The core of the investments consisted of the financing of packages of measures (individual projects), which were divided into the following components: (1.) sustainable forest and mangrove management or their rehabilitation (this component was subsidised and carried out by the local authorities supported by the DENR); (2.) income-generating measures (financed with loans); these were primarily agricultural measures (e.g. promotion of the production and processing of forestry and agroforestry products, etc.); (3.) improvement of rural infrastructure, which was considered to support resource management in remote areas (e.g. road construction and water supply); and (4.) a capacity development component, which was intended to provide project staff and participating farmers with important theoretical and practical knowledge in connection with the above-mentioned packages of measures.

Under the **forest and mangrove management/rehabilitation** component, a total of 9,000ha was to be established, either via (i) afforestation measures, (ii) enrichment planting with natural regeneration, (iii) substructure with rattan, (iv) mangrove afforestation in the coastal area and (v) agroforestry measures. Of the 9,317ha planted, 7,860ha (87.3%) were accepted as successfully established after a total of three inspections (the last one took place in the second year after planting). A total of 1,457ha could not be accepted for M&E. The main reasons for the non-acceptance were high mortality and destruction by fire or typhoon (force majeure). The objectives achieved for the individual measures were as follows: (i) afforestation 1,933ha, (ii) enrichment planting with natural regeneration 1,887ha, (iii) rattan planting 1,094ha, (iv) mangrove afforestation 117ha and (v) agroforestry measures, which were the most extensive at 2,829ha.

With regard to **infrastructure measures and measures to improve the living standards** (livelihood measures), a total of 18 projects were implemented by the 15 partner communities with a total cost volume of PHP 157 million (EUR 2.41 million), of which PHP 137,343 million (EUR 2.11 million) was financed by FC loans. The largest part of these investments went to the acquisition of machines for road construction, drinking water systems and road construction measures. The purchased machinery and the facilities for the drinking water supply are fully functional and continue to be maintained and serviced by the communities.

The **capacity building component** concentrated on technical training, with a focus on acquiring manual skills that can sustainably improve the participants' livelihoods in the long-term (e.g. fish farming, sawmill techniques, etc.). In total, more than 7,000 participants (59% men and 41% women) took part in 260 training courses as well as 12 other educational events including a training trip to Germany.

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 / +)	Reason for weighting
Evaluation dimension: Policy and priority focus			2	o	
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?	Were the objectives of the measure in line with the relevant MDGs (MDG 1: Eradicate extreme poverty and hunger, MDG 7: Ensure environmental sustainability) and the German Federal Ministry for Economic Cooperation and Development's (BMZ) priority area strategy paper for development cooperation with the Philippines in the area of "Environmental policy, protection and sustainable use of resources"?	PA documentation			
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.))?	Were the objectives of the measure in line with the Philippine Development Plan (10-point development plan for creating jobs in rural areas, taking into account CBFM [2005–2010] of the former President Arroyo, medium-term development programme of the National Economic and Development Authority [NEDA, 2005–2010])? Was the Department of Environment and Natural Resources (DENR) an appropriate project-executing agency institutionally and in terms of its administrative capacity?	PA documentation Final inspection documentation, interview with project-managing department			

<p>Evaluation dimension: Focus on needs and capacities of participants and stakeholders</p>			2	o	
<p>Are the programme objectives focused on the developmental needs and capacities of the target group? Was the core problem identified correctly?</p>	<p>The main problem identified by the PA was the unsustainable subsistence agriculture and illegal use of natural resources, which is widespread in Panay and Negros, against the background of widespread poverty (at PA, around 1/3 of the population was below the poverty line in the affected provinces, up to 43% in some regions compared to a national average of 24%). What % of the project area was covered by land titles at the PP, 18–20? And what about the rest, was this no man's land where anyone could illegally participate in deforestation or fishing?</p>	<p>PA documentation</p>			
<p>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, ethnicity, etc.)? How was the target group selected?</p>	<p>The project focused geographically on areas that were particularly affected by the degradation of natural resources at the time of the PA and concentrated on poor, smallholder households as a target group, which generally belonged to indigenous population groups. These should be integrated into the project by LGUs responsible for participatory approaches. What activities have the LGUs undertaken to involve the target group? Were particularly vulnerable parts of the target group taken into account?</p>	<p>Interview with LGU and TG representatives</p>			
<p>Evaluation dimension: Appropriateness of design</p>			2	o	
<p>Was the design of the programme appropriate and realistic (technically, organisationally and financially) and in principle suitable for</p>	<p>Was the combination of forest and mangrove protection measures or rehabilitation, income-generating measures and the improvement of rural infrastructure conceptually suitable for contributing to</p>	<p>PA + final inspection documentation</p>			

contributing to solving the core problem?	the sustainable preservation of forests and mangroves as well as to the improvements in the living conditions of the population in the project area?	
Is the programme design sufficiently precise and plausible (transparency and verifiability of the target system and the underlying impact assumptions)?	Are the objectives formulated precisely at impact and outcome level? Can target achievement be checked using suitable indicators?	PA + final inspection documentation
Please describe the results chain, incl. complementary measures, if necessary in the form of a graphical representation. Is this plausible? As well as specifying the original 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)	A combination of forest and mangrove protection measures and rehabilitation, income-generating measures and the improvement of rural infrastructure enable sustainable use of the forest and mangroves as well as an increase in the incomes of the participating households. This preserves forests and mangroves and improves the living conditions of the population in the project area.	PA + final inspection documentation
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)?	Corresponds to a standard evaluation question.	PA documentation
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	n/a	n/a

output outcome)? (FC-E-specific question)					
Evaluation dimension: Response to changes/adaptability				2	o
Has the programme been adapted in the course of its implementation due to changed framework conditions (risks and potential)?	Corresponds to a standard evaluation question.	Final inspection documentation			

Coherence

Evaluation question	Specification of the question for the present project	Data source (or rationale if the question is not relevant/applicable)	Rating	Weighting (- / o / +)	Reason for weighting
Evaluation dimension: Internal coherence (division of tasks and synergies within German development cooperation):				2	o
To what extent is the programme designed in a complementary and collaborative manner within the German development cooperation (e.g. integration into DC programme, country/sector strategy)?	Corresponds to a standard evaluation question.	PA documentation			
Do the instruments of the German development cooperation dovetail in a conceptually meaningful way, and are synergies put to use?	What were the specific synergies between FC and TC?	Final inspection documentation, interview with project-managing department			
Is the programme consistent with international norms and standards to which the German development cooperation	Corresponds to a standard evaluation question.	PA and final inspection documentation			

is committed (e.g. human rights, Paris Climate Agreement, etc.)?					
Evaluation dimension: External coherence (complementarity and coordination with actors external to German DC):			2	o	
To what extent does the programme complement and support the partner's own efforts (subsidiarity principle)?	What did the Philippine government itself do during the project period to protect natural resources and improve the living conditions of poor households in rural areas?	PA and final inspection documentation, interview with the DENR			
Is the design of the programme and its implementation coordinated with the activities of other donors?	n/a	PA and final inspection documentation			
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?	Corresponds to a standard evaluation question.	PA and final inspection documentation			
Are common systems (of partners/other donors/international organisations) used for monitoring/evaluation, learning and accountability?	Corresponds to a standard evaluation question.	PA and final inspection documentation			

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 / +)	Reason for weighting
Evaluation dimension: Achievement of (intended) targets			2	o	

Were the (if necessary, adjusted) objectives of the programme (incl. capacity development measures) achieved? Table of indicators: Comparison of actual/target	--	Cf. Table of indicators			
Evaluation dimension: Contribution to achieving objectives:			2	0	
To what extent were the outputs of the programme delivered as planned (or adapted to new developments)? (<i>Learning/help question</i>)	Corresponds to a standard evaluation question.	Final inspection documentation			
Are the outputs provided and the capacities created used?	Corresponds to a standard evaluation question.	Final inspection documentation, on-site inspection			
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)?	Corresponds to a standard evaluation question. In addition, why were financially weak municipalities only partially willing to take out loans and make an effort to participate in the project?	Final inspection documentation, interviews with TG on site			
To what extent did the programme contribute to achieving the objectives?	Corresponds to a standard evaluation question.	Final inspection documentation, interview with the DENR			
To what extent did the programme contribute to achieving the objectives at the level of the intended beneficiaries?	To what extent did the measure contribute to increasing the target group's incomes.	Final inspection documentation, interviews with TG on site			
Did the programme contribute to the achievement of objectives at the level of the particularly disadvantaged or vulnerable groups	Corresponds to a standard evaluation question. In addition: have other households benefited from "leakage"?	Final inspection documentation			

involved and affected (potential differentiation according to age, income, gender, ethnicity, etc.)?					
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>)	Corresponds to a standard evaluation question.	Final inspection documentation			
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>)	Corresponds to a standard evaluation question. In addition: to what extent were climate risks taken into account in the design of afforestation measures (especially in the selection of tree species with regard to climatic changes)?	Final inspection documentation			
Evaluation dimension: Quality of implementation			2	o	
How is the quality of the management and implementation of the programme (e.g. project-executing agency, consultant, taking into account ethnicity and gender in decision-making committees) evaluated with regard to the achievement of objectives?	Corresponds to a standard evaluation question. In addition: What consequences for project quality and target achievement have arisen from complicated implementation rules and unexplained distribution of competencies in the DENR's area of responsibility?	Final inspection documentation, interview with project-managing department			
How is the quality of the management, implementation and participation in the programme by the partners/sponsors evaluated?	Corresponds to a standard evaluation question.	Final inspection documentation			
Evaluation dimension: Unintended consequences (positive or negative)			2	o	

Can unintended positive/negative direct impacts (social, economic, ecological and, where applicable, those affecting vulnerable groups) be seen (or are they foreseeable)?	Corresponds to a standard evaluation question.	Final inspection documentation, interviews with TG on site
What potential/risks arise from the positive/negative unintended effects and how should they be evaluated?	n/a	n/a
How did the programme respond to the potential/risks of the positive/negative unintended effects?	n/a	n/a

Efficiency

Evaluation question	Specification of the question for the present project	Data source (or rationale if the question is not relevant/applicable)	Rating	Weighting (- / o / +)	Reason for weighting
Evaluation dimension: Production efficiency			1	o	
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.	Corresponds to a standard evaluation question.	Final inspection documentation, interview with project-managing department			
If necessary, as a complementary perspective: To what extent could the 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.)?	n/a	n/a			

Were the outputs produced on time and within the planned period?	Corresponds to a standard evaluation question.	Final inspection documentation			
Were the coordination and management costs reasonable (e.g. implementation consultant's cost component)? (FC-E-specific question)	Corresponds to a standard evaluation question.	Final inspection documentation			
Evaluation dimension: Allocation efficiency			1	o	
In what other ways and at what costs could the effects achieved (outcome/impact) have been attained? (<i>Learning/help question</i>)	To what extent could afforestation areas have been greened again through natural succession?	Final inspection documentation, interview with the DENR			
To what extent could the effects achieved have been attained in a more cost-effective manner, compared with an alternatively designed programme?	See above question.	See above			
If necessary, as a complementary perspective: To what extent could the positive effects have been increased with the resources available, compared to an alternatively designed programme?	n/a	n/a			

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 / +)	Reason for weighting
Evaluation dimension: Overarching developmental changes (intended)			3	o	

<p>Is it possible to identify overarching developmental changes to which the programme should contribute? (Or if foreseeable, please be as specific as possible in terms of time).</p>	<p>Can a reduction in the loss of natural forests be observed on Panay and Negros? Have biodiversity and water quality improved? Has soil erosion decreased?</p>	<p>Final inspection documentation, if necessary, in-house geodata analysis, if necessary, in-house recording of biodiversity, water quality and soil erosion (use TE?)</p>			
<p>Is it possible to identify overarching developmental changes (social, economic, environmental and their interactions) at the level of the intended beneficiaries? (Or if foreseeable, please be as specific as possible in terms of time).</p>	<p>Have the target group's living conditions improved on Panay and Negros?</p>	<p>Final inspection documentation, if necessary, additional surveys of income from agroforestry measures</p>			
<p>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 should contribute (Or, if foreseeable, please be as specific as possible in terms of time).</p>	<p>The target group only includes disadvantaged or vulnerable, poor smallholder households. Therefore, see the previous question.</p>	<p>See above</p>			
<p>Evaluation dimension: Contribution to overarching developmental changes (intended)</p>			<p>3</p>	<p>0</p>	
<p>To what extent did the programme actually contribute to the identified or foreseeable overarching developmental changes (also taking into account the political stability) to which the programme should contribute?</p>	<p>To what extent did the project contribute to a reduction in natural forest losses? How did the final review arrive at 12 thousand ha? Was this the initial value, and where was it mentioned in the PP (section?) What is the final value in 2021 and which average annual deforestation rate does this correspond to in mathematical terms? What about the neighbouring areas not affected by the project?</p>	<p>Final inspection documentation, if necessary, in-house geodata analysis</p>			

<p>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 also at impact level? (E.g. drinking water supply/health effects).</p>	<p>Can a decrease in the loss of natural forests be observed in the project area on Panay and Negros?</p>	<p>Final inspection documentation, if necessary, in-house geodata analysis</p>
<p>Did the programme contribute to achieving its (possibly adjusted) developmental objectives at the level of the intended beneficiaries?</p>	<p>Did the measure contribute to improving the target group's living conditions on Panay and Negros?</p>	<p>Comparison of the project-specific data presented in the final inspection documentation with other socio-economic indicators for Panay and Negros or the respective provinces (research primarily in open data sources).</p>
<p>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>The target group only includes disadvantaged or vulnerable, poor smallholder households. Therefore, see the previous question.</p>	<p>See above</p>
<p>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>Corresponds to a standard evaluation question.</p>	<p>Final inspection documentation</p>
<p>Which external factors were decisive for the achievement or non-achievement of the intended developmental objectives of the programme? (<i>Learning/help question</i>)</p>	<p>Corresponds to a standard evaluation question.</p>	<p>Final inspection documentation</p>

<p>Does the project have a broad-based impact?</p> <ul style="list-style-type: none"> - 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? (Reproducible character) 	<p>Corresponds to a standard evaluation question.</p>	<p>(Final inspection documentation) On-site interviews with the DENR</p>			
<p>How would the development have gone without the programme? (Learning and help question)</p>	<p>Corresponds to a standard evaluation question.</p>	<p>To be derived from the sum of the answers to the above questions.</p>			
<p>Evaluation dimension: Contribution to (unintended) overarching developmental changes</p>			<p>2</p>	<p>0</p>	
<p>To what extent can unintended overarching developmental changes (also taking into account political stability) be identified (or, if foreseeable, please be as specific as possible in terms of time)?</p>	<p>Corresponds to a standard evaluation question.</p>	<p>Final inspection documentation</p>			
<p>Did the programme noticeably or foreseeably contribute to unintended (positive and/or negative) overarching developmental impacts?</p>	<p>Corresponds to a standard evaluation question.</p>	<p>Final inspection documentation</p>			
<p>Did the programme noticeably (or foreseeably) contribute to unintended (positive or negative) overarching developmental changes at the level of particularly</p>	<p>Corresponds to a standard evaluation question.</p>	<p>Final inspection documentation</p>			

disadvantaged or vulnerable groups (within or outside the target group) (do no harm, e.g. no strengthening of inequality (gender/ethnicity))?		
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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 / +)	Reason for weighting
Evaluation dimension: Capacities of participants and stakeholders			2	o	
Are the target group, executing agencies and partners institutionally, personally and financially able and willing (ownership) to maintain the positive effects of the programme over time (after the end of the promotion)?	Corresponds to a standard evaluation question. How is the maintenance budget made available beyond the end of the project term?	Final inspection documentation, interview with the DENR			
To what extent do the target group, executing agencies and partners demonstrate resilience to future risks that could jeopardise the impact of the programme?	Resilience, in particular with respect to climate risks (afforestation areas, agroforestry areas, infrastructure) and the target group with respect to economic shocks (in terms of livelihoods)?	Inspection on site, comparison of the site requirements of the selected tree species/varieties with the climate-change-related site conditions, target group interviews (economic effects of the COVID-19 pandemic on household income)?			
Evaluation dimension: Contribution to supporting sustainable capacities:			2	o	
Did the programme contribute to the target group, executing agencies and partners being institutionally, personally and financially able and willing (ownership) to maintain the positive effects of the	Corresponds to a standard evaluation question.	Final inspection documentation.			

programme over time and, where necessary, to curb negative effects?				
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?	Has the measure contributed to strengthening resilience with regard to climate risks and economic shocks?	Inspection on site, comparison of the site requirements of the selected tree species/varieties with the climate-change-related site conditions, target group interviews (economic effects of the COVID-19 pandemic on household income, to what extent were these mitigated by the project's activities)?		
Did the programme contribute to strengthening the resilience of particularly disadvantaged groups to risks that could jeopardise the effects of the programme?	The target group only includes disadvantaged or vulnerable, poor small-holder households. Therefore, see the previous question.	See above		
Evaluation dimension: Durability of impacts over time			3	0
How stable is the context of the programme (e.g. social justice, economic performance, political stability, environmental balance)? <i>(Learning/help question)</i>	Political and socio-economic development of the project region or the Philippines as a whole? Impact of climate change on the project region?	EIU report, evaluation of climate projections, target group interview, if necessary, exchange with German Embassy		
To what extent is the durability of the positive effects of the programme influenced by the context? <i>(Learning/help question)</i>	Corresponds to a standard evaluation question.	n/a		
To what extent are the positive and, where applicable, the negative effects of the programme likely to be long-lasting?	Corresponds to a standard evaluation question.	n/a		