

Guatemala: Protection of Archaeological Sites in Petén

Ex post evaluation

OECD sector	41040/Site preservation		
BMZ project IDs	1989 66 012 (Phase I) 1997 65 298 (Phase II) 2000 66 118 and 2000 70 122 (Phase III)		
Project executing agency	Instituto Antropología e Historia		
Consultant	German Archaeological Institute; Agricultural and Hydrological Technology		
Year of ex post evaluation report	2008		
	Project appraisal (planned)	Ex post evaluation (actual)	
Start of implementation	Phase I: Q 3 1990 Phase II: Q 2 1997 Phase III: Q 1 2001	Phase I: Q 4 1993 Phase II: Q 4 1997 Phase III: Q 1 2001	
Period of implementation	Phase I: 2.5 years Phase II: 2 years Phase III: 2.5 years	Phase I: 3.5 years Phase II: 3 years Phase III: 4.5 years	
Investment costs	Phase I: EUR 2.56 million Phase II: EUR 1.79 m Phase III: EUR 2.25 m	Phase I: EUR 2.59 million Phase II: EUR 2.48 m Phase III: EUR 4.54 m	
Counterpart contribution	Phase I: EUR 1.54 million Phase II: EUR 1.02 m Phase III: EUR 0.98 m	Phase I: EUR 1.57 million Phase II: EUR 1.71 m Phase III: EUR 3.52 m	
Financing, of which Financial Cooperation (FC) funds	Phase I: EUR 1.02 million Phase II: EUR 0.77 m Phase III: EUR 1.02 m	Phase I: EUR 1.02 million Phase II: EUR 0.77 m Phase III: EUR 1.02 m	
Other institutions/donors involved	<>	<>	
	Phase I	Phase II	Phase III
Performance rating	2	2	2
• Relevance	1	1	1
• Effectiveness	2	2	2
• Efficiency	3	3	3
• Overarching developmental impact	1	1	1
• Sustainability	3	3	3

Brief description, overall objective and project objectives with indicators

The projects consisted of two components, which made up the main parts of the state plan to preserve the cultural heritage in Petén Province and pursued different aims:

- The subproject **Archaeological Atlas** comprised the systematic surveyance and registration of undiscovered archaeological sites of the Maya culture in the area of the planned main road linking Modesto Méndez and Flores to prevent damage to these sites during construction work. In terms of scale, this subproject was of subordinate importance.
- The subproject **Triángulo** consisted of measures for the protection of the three major historic Mayan ruins Yaxhá, Nakúm and Naranjo. It largely involved the registration and scientific evaluation of the ruins, their preservation as monuments, support in drawing up a master plan for the planned Triángulo archaeology and nature park, its conservational touristic development and strengthening the local capacities of the National Council of Protected Areas and Guatemala's Institute of Anthropology and History (Instituto de Antropología e Historia - IDAEH) for park administration. IDAEH also received comprehensive scientific support from the German Archaeological Institute (DAI).

The joint objective of the projects was the preservation and investigation of as yet unidentified and of already discovered Maya sites and setting up a nature and archaeology park. They were thus supposed to contribute to preserving Mayan historic/cultural monuments in their natural setting in the Guatemalan rainforest (overall objective). The indicators for objective achievement were the preparation of an archaeological atlas as the basis for planning and implementing appropriate measures to prevent any impairments to the Maya sites in the course of construction work for the Modesto Méndez-Flores road, the structural preservation of the ruins in the Triángulo area and setting up a nature reserve there.

Project design/major deviations from original planning and main causes

The project design provided for archaeological surveyance to make an inventory of and secure Maya sites and in individual cases evaluate these scientifically through excavation. Investment measures were to be carried out for security and conservation work on archaeologically relevant building complexes (backfilling of illicit excavation tunnels, installing a control point and excavation camps). In a mobile group, the personnel of the project executing agency were tasked with checking smaller archaeological sites in the catchment area of the national park and preserving their structural fabric with limited rehabilitation measures. Up until the establishment of the requisite offices at IDAEH, the project personnel had to guard the archaeological sites as well. They were also required to install a visitors' centre, administrative buildings, workshops, sanitary facilities and local control points. For logistical support, communication systems and vehicles were to be obtained and roadways improved on a limited scale. All this was largely carried out to plan. The quality of archaeological work to secure and conserve the sites is good. Despite the adverse climatic conditions, the project buildings are in a satisfactory condition and the vehicles are well maintained. The infrastructure now available has done much to make the national park the second largest tourist attraction in Petén Province after the ruined city of Tikal.

The works in the Triángulo area were the most important archaeological or monument conservation field activities of IDAEH in the 1990s. Owing to their combination of cautious investigation and restoration true to the original, while developing new techniques, they still rate as groundbreaking today in Guatemala and beyond. Continuous support and advice by DAI also contributed to this.

Key results of impact analysis and performance rating

Altogether, the project objectives were met:

- An inventory of all Maya sites on the planned route from Modesto Mendéz to Flores was completed by December 1999. A monographic documentation is available. During the subsequent road construction, the route was amended due to a find.
- Historical monuments of the Mayan culture have been fully restored at three locations (Topoxté, Yaxhá, Nakúm).
- Seven other sites (San Clemente, Naranjito, Poza Maya, Pochitoca, Torra Corazal, El Pital, Ixtinto) have been documented and consolidated.
- The scientific examination of the locations in northeast Petén has been documented.
- The restoration measures in the registered ruin compounds in Yaxhá and Nakúm were completed at the end of 2005.
- The area of Yaxhá, Nakúm, Naranjo (Triángulo) forms part of the Maya Biosphere Reserve since 1990 and was awarded national park status in 2003.
- Park administration functions satisfactorily. Certain problems persist, however (illegal forest clearance, threat of relocation by groups of farmers and limited illicit excavations, primarily around the Naranjo site).

Both subprojects were continued after completion of FC support in full scale with national funds. An average of 20,000 people visit the park every year with annual revenues amounting to about EUR 80,000.

The overall objective of the projects (contribution to preserving Mayan monuments of historic value) has been clearly achieved. A secondary objective, the protection and conservation of tropical rainforests as a human habitat and means of sustaining biodiversity has also been achieved. The follow-on costs for the Guatemalan state are, however, considerable. As the architecture of the edifices has been re-exposed, the tropical climate is taking its toll, with fluctuating temperatures and rain attacking the relatively soft limestone, accelerating erosion. Micro-organisms develop (primarily algae and lichens) and corrode the stonework, with plants continually retaking root and spreading. Damage is also caused by the visitors (both unintentional and provoked), necessitating continuous restoration work to conserve the sites. Financing for the costs incurred has not yet been assured.

The projects have no significant direct bearing on poverty. Participatory development, democratisation and good governance were of no relevance, nor did the projects afford any scope for contributing to gender equality.

The socio-cultural effects have been very beneficial, since the park is visited by many school classes. Apart from the long-term conservation of the Guatemalan, and hence world, cultural heritage, the Maya sites play a major role for national identity. Today, religious ceremonies recalling Mayan cultural traditions are again being held. This relevance was not accounted for in project planning and has only become apparent with the advent of the peace process.

Also important is the role of the national park as part of the Maya Biosphere Reserve. The reserve is one of the last large forested areas in Central America and forms part of the natural corridor between the North and South American continents. In addition to the protection of species, the tropical rainforest is also important for climate protection and stabilising the water balance in surrounding regions. Altogether, the ecological impacts have been very positive.

Summarising, we assess the developmental efficacy as follows:

Relevance: Petén Province is characterised by the existence of historically significant and valuable ruins set in a still partially intact tropical rainforest. This affords unique cultural and touristic potential, which is being gradually developed. Besides the Triángulo National Park, which is the second largest tourist attraction in Petén Province, Tikal National Park is also of key importance as a magnet for visitors (more than 250,000 a year). After agriculture, tourism is the

second largest source of income for the provincial population. The FC programme performs a pilot function and is in part replicable. The design took consistent account of the important distinctions in monument preservation among consolidation, restoration and reconstruction. Attention was also paid to keeping constructional interventions to a minimum, largely refraining from a reconstruction of structural elements. Also, only local building materials were used. The experience gained here is also of benefit to future projects. Besides the long-term conservation of the Guatemalan, as part of the world, cultural heritage, the Maya sites are of prime relevance for national identity. However, the national park is also important as part of the Biosphere Reserve, which encompasses one of the last large forested areas of Central America acting as the natural corridor between the continents of North and South America. It is therefore also highly relevant for climate protection. The projects conformed with the goals of German development policy. Altogether, we assess their relevance as very good (rating 1).

Effectiveness: The project objectives were largely attained and play a role beyond the project area. This is remarkable considering the relatively small amount of financial resources made available. In particular, they succeeded in (i) registering and scientifically documenting the Maya archaeological sites along the Modesto Méndez - Flores road, (ii) consolidating and restoring the structural fabric of the Maya sites, Topoxté, Yaxhá and Nakúm, (iii) drawing up scientific records of the archaeological sites in the Triángulo area (Topoxté, Yaxhá, Nakúm, Naranjo, Poza Maya, Pochitoca, San Clemente), (iv) demarcating and establishing the Triángulo National Park and (v) installing touristic infrastructure in Yaxhá and Nakúm. Decisive for objective achievement was the above-average continuity of staff and the resultant adherence to the monument preservation approach, the ongoing and important national counterpart contribution, the flexible support of the project executing agency by means of an external consultant and dedicated technical and personnel support from DAI. Certain shortcomings are discernible in the protection of the Naranjo archaeological site. There is too little institutional involvement here; no control points have been set up there as yet. Not enough can be done to effectively counter illegal activities (tree felling and illicit excavations). Though acknowledged, this problem has not yet been solved. Altogether, we assess effectiveness as good (rating 2).

Efficiency: Based on the present state of knowledge, the combination of protecting Mayan ruins (culture) and the rainforest enclosing them (nature) by demarcating a nature reserve containing both is an ideal approach. No alternative protection schemes have been adopted in Guatemala so far. Of particular note in the preservation of monuments is the emphasis on a cautious consolidation and restoration of the buildings, which is more economical in the long run than reconstruction. There are efficiency shortcomings in terms of cost recovery and with that financial sustainability. Although entrance fees are being charged for visiting the national park as of 2005, despite increasing numbers in the future these will only suffice to cover a part of the conservation and operating costs. The incentive mechanisms for involving the population in the protection of the Maya sites and the Guatemalan rainforest have been limited to date. Attempts are, however, being made in the preferential recruitment of people from the direct environs of the national park. Of the approximate total of 280 people who work in park administration, 34 come from the surrounding municipalities. The project thus generates direct income for approx. 4% of the families. What is more, the families from the surrounding villages provide touristic services, although they are also obliged to comply with park rules (cleanliness, protection of the Mayan edifices, etc.). This cooperation has worked satisfactorily till now, although the economic effects in terms of income have been limited. Recently, the surrounding municipalities have also been allowed to submit projects which can be financed from park revenues. There are, however, no verifiable findings on what effect this will have on protecting the national park. However, the local inhabitants involved generally hold this kind of support in high regard and the relations between the national park and the local population can be expected to improve further over the medium term. Altogether, we assess programme efficiency as satisfactory (rating 3).

Overarching developmental impact: The project has brought about a whole number of additional beneficial developmental results apart from the specific overall objective (contribution to

preserving monuments of cultural-historical value in their natural environment in the Guatemalan rainforest). For example, there has been substantial know-how transfer to IDAEH through the advice and support provided by DAI. Evident improvements have also been made in the ecological environment (protection of park forestland): some violations (illicit tree felling) have, for example, been prosecuted and illegal acquisitions of land halted by police action under a court order (2005). There has also been a discernible increase in the general acceptance on the part of inhabitants of the municipalities buffering the national park. This trend will continue as the local population gets increasingly involved in tourism. The growing number of foreign tourists to Petén Province also makes a positive contribution to the balance of payments. Of particular importance is the pioneering role of the Triángulo concept in monument preservation (focus on consolidation, largely avoiding reconstruction; production and use of building materials applying conventional methods along with the latest visualisation technologies/3D computer animations), as evident from presentations at many international meetings and frequent publications. Another beneficial side-effect is that the national park has also been declared a Ramsar site due to its transregional significance for migratory birds. An application has also been submitted for approval as a world cultural heritage site. In Yaxhá, religious Maya ceremonies have again been held in recent years and several thousand children and adolescents visit the Maya location every year in school excursions. This fosters national cultural awareness. Altogether, we assess the impact as very good (rating 1).

Sustainability: Project sustainability could be impaired by latent pressure from settlers in the whole of Petén Province, exacerbated by soil depletion in already deforested areas. This could also pose a danger to the national park in the medium to long term. Furthermore, the park has no source of self-financing so there is a certain risk to financial sustainability. There are, however, no indications at present of any reduction in budgetary funds for park administration. Altogether, we judge sustainability to be satisfactory (rating 3).

Assessing the various ratings, we attest all project measures together good developmental efficacy (rating 2).

No general recommendations have been made as part of ex post evaluation.

Notes on the methods used to evaluate project success (project rating)

Projects are evaluated on a six-point scale, the criteria being relevance, effectiveness (outcome), “overarching developmental impact” and efficiency. The ratings are also used to arrive at a final assessment of a project’s overall developmental efficacy. The scale is as follows:

- 1 Very good rating that clearly exceeds expectations
- 2 Good rating fully in line with expectations and without any significant shortcomings
- 3 Satisfactory rating – project falls short of expectations but the positive results dominate
- 4 Unsatisfactory rating – significantly below expectations, with negative results dominating despite discernible positive results
- 5 Clearly inadequate rating – despite some positive partial results the negative results clearly dominate
- 6 The project has no positive results or the situation has actually deteriorated

A rating of 1 to 3 is a positive assessment and indicates a successful project while a rating of 4 to 6 is a negative assessment and indicates a project which has no sufficiently positive results.

Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability)

The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability)

The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected.)

Sustainability level 3 (satisfactory sustainability)

The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability)

The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and an improvement is very unlikely. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The overall rating on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. A rating of 1 to 3 indicates a “successful” project while a rating of 4 to 6 indicates an “unsuccessful” project. In using (with a project-specific weighting) the five key factors to form a overall rating, it should be noted that a project can generally only be considered developmentally “successful” if the achievement of the project objective (“effectiveness”), the impact on the overall objective (“overarching developmental impact”) and the sustainability are considered at least “satisfactory” (rating 3).