

Bolivia: Natural Resource Conservation Santa Cruz

Ex-post evaluation

OECD sector	41010 / Environmental policy and administration	
BMZ project ID	1990 65 244 Natural resource conservation Santa Cruz	
Project-executing agency	Prefectura del Departamento de Santa Cruz, Secretaria Departamental de Desarrollo Sostenible, UTD-PLUS	
Consultant	Task force IP Institut für Projektplanung GmbH, Consulting Engineers Salzgitter (CES) GmbH, Kirchner & Wolf Consult GmbH	
Year of ex-post evaluation	2004	
	Project appraisal (planned)	Ex-post evaluation (actual)
Start of implementation	06/1990	04/1991
Period of implementation	Phase 1 06/1992 Phase 2 06/1995	Phase 1 03/1993 Phase 2 08/1998
Total cost	EUR 6.4 million	EUR 9.2 million
Counterpart contribution	EUR 1.3 million	EUR 1.6 million
Financing, of which Financial Cooperation (FC) funds	EUR 5.1 million	EUR 7.6 million*
Other institutions/donors involved	World Bank	World Bank
Performance rating	3	
• Significance / relevance	3	
• Effectiveness	3	
• Efficiency	4	

* Following a fund increase in 1994 by EUR 2.5 million

Brief Description, Overall Objective and Project Purposes with Indicators

The German Financial Cooperation (FC) project was part of the "Eastern Lowlands: Natural Resource Management and Agricultural Production Project" funded by the World Bank. FC took over the component of land use planning and, following the project increase in 1994, it also took charge of the component "demarcation of indio areas," which was carried out as a separate FC project. It mainly comprised the elaboration and establishment of a legal basis for a regional planning and land use planning scheme for the department of Santa Cruz ("Plan de Uso del Suelo – DSC-PLUS") to create the necessary conditions for organized land development and land use, measures to implement the DSC-PLUS including the demarcation of indigenous areas and the consolidation of the land rights of indigenous groups, safeguarding measures for national parks and other protected areas, as well as the development and reinforcement of the implementing institution in charge of carrying out the PLUS plan.

The overall objective was the sustainable use of the renewable resources of the DSC while taking adequate account of ecological, social and economic interests. Achievement of the project purposes also meant achievement of the overall objective.

The project purposes defined during the project appraisal were to contribute (a) to organized land development and land use; (b) to safeguarding national parks and protected areas; and (c) to protecting the habitats of the indigenous people living in the DSC area.

An indicator of achievement of the project purposes was compliance of actual land use with the land use plan. Plans called for the indicator to be increased annually as of 1993 and also considered achieved if the rate of land clearance exceeded its level at the time of the project appraisal, provided that the land being cleared was in regions specifically defined for this purpose.

At the time of the progress review and the project increase on April 12, 1994, we informed the German Federal Ministry for Economic Cooperation and Development (BMZ) that the draft land use plan was finished and that the GIS (geographic information system) had been set up. We further informed the BMZ that the activities of the consultant in this phase primarily involved supporting the project-executing agency with the creation of a legal basis for the land use plan and with the implementation of this plan. We changed the project purposes as follows: Creation of the conditions for (a) organized land development and land use; (b) safeguarding national parks and protected areas; and (c) protecting the habitats of the indigenous population.

The indicators of achievement of the project purposes were: (1) Adoption of the laws and decrees required to implement the PLUS and to make it legally binding; (2) CORDECRUZ operates the GIS and obtains the needed satellite images with its own funds; (3) the indigenous communities make use of the available legal instruments when their territory and their rights are violated.

The indicator of achievement of the unchanged overall objective was compliance of actual land use with the land use plan.

Both the original version and the changed version of the target system contained certain deficiencies. First of all, on the level of the project purposes it was not clear enough what exactly was meant with 'contributing or creating the conditions for the project purposes (a) organized land development and use; (b) safeguarding of national parks and protected areas; (c) protection of the habitats of the indigenous population in the DSC' and, therefore, how exactly it was to be used as a basis for evaluation. One possibility would have been, for example, to define the protected forested area as a certain percentage of the total DSC area. Another deficiency is that it was not specified whether all of the project purposes had to be fulfilled in order for the overall objective to be considered achieved, or whether only certain project purposes had to be met. The decision to include an indicator of achievement of the overall objective in the adjusted target system was basically a good one.

Project Design / Principal Deviations from the original Project Planning and their main Causes

At the time of the project appraisal, the following components were planned: (1) Preparation of a land use plan for the entire DSC area; (2) regular review of adherence to the land use plan (satellite images and controls on the ground); (3) determination of standards for land clearance permits and controls thereof as well as the preparation of ground and vegetation maps for selected parts of the DSC area; (4) reinforcement of the "Departamento de Recursos Naturales (DRN)" of the project-executing agency "Corporación Regional de Desarrollo de Santa Cruz (CORDECRUZ)," particularly in the GIS area; (5) appointment of an international expert commission to evaluate environmental aspects; (6) preparation of studies and safeguarding measures in selected national parks (including, among others, the construction of a training facility); and (7) demarcation of indigenous territories and land titles (after the increase in 1994). Initially, the FC project was to focus on measures 1-3 and, following the increase, on measure 7 as well.

Looking back, the project design had the following deficiencies: (a) under the DSC-PLUS (1 : 250,000) some of the land use categories were defined too broadly. (b) The guidelines for land use contained in the DSC-PLUS are very crude and need to be elaborated before they can serve as a basis for operational decisions. (c) The measures to establish the DSC-PLUS are mainly limited to the level of the DSC. Although the communities are important stakeholders, they were not taken into sufficient consideration. The project design did not include technical support for communities that could at least serve as a model (e.g. in areas facing particularly high pressure to use their natural resources) with the elaboration of necessary detailed plans, i.e. communal PLUS (1 : 50,000) on the basis of the DSC-

PLUS (1 : 250,000). Later this was partially addressed by a Technical Cooperation (TC) project. The consequence was an initially low degree of recognition of the DSC-PLUS and of its implementation regulations on the lower levels. (d) It would have made sense to offer more support for land entitlements. For this the INRA, which was not founded until 1996 and did not have sufficient staffing or financial capacities, should have been offered more support (also from TC) and its activities should have been better synchronized with the PLUS. (e) One rather technical deficiency was the GIS software that was chosen.

Above all, there were major deviations in connection with the prolongation of the implementation period and with the fact that in the two areas 'support for the executing agency with establishing a legal basis for DSC-PLUS' and 'demarcation and protection of Indian land titles' (due especially to weaknesses of the executing agency) the consultant's assignment had to be extended significantly compared to the original plans.

Despite the limitations mentioned above, the DSC-PLUS serves as a basis for the operative land use plans contained in the DSC. Since it has the same force as national law, the PLUS plan has capacity-building effects, also for land use planning in other regions in Bolivia. The DSC-PLUS contains important provisions for the maintenance of protected areas and for identifying them as such. Except for the limitations described, we deem the project design appropriate.

Key Results of the Impact Analysis and Performance Rating

The following results were achieved for the individual programme components:

(a) Land development and use: A regional planning and land use scheme – the DSC-PLUS – was prepared on a scale of 1 : 250,000 for the department of Santa Cruz, which encompasses 370,000 km² in total. Its content is mainly normative, i.e. on the basis of certain technical criteria (among others geological and hydrological criteria, livestock farming, vegetation cover, settlement), the relevant interest groups reached an agreement on dividing up the DSC area into a total of 6 categories of use: (a) intensive, mechanized agriculture 8%; (b) livestock and pasture farming 20%; (c) agro-silvo-pastoral use 10%; (d) forestry 27%; forestry with limited use 10%; (e) protected areas 24%. Approx. 1% is for roads and urban areas. The rough land use guidelines defined for each land use category of the DSC-PLUS are not detailed enough, however, to be used for decisions on the operational level. The DSC-PLUS is legally guaranteed by the "Ley de la República." As a result, land use in accordance with the DSC-PLUS is obligatory. A key result of the DSC-PLUS was that large-scale soybean cultivation – which was financed under the World Bank project – was mainly limited to ecologically suitable areas. Applying the DSC-PLUS is problematic because (1) in many cases, decisions on land use on the community level are hindered by a lack of detailed maps, i.e. community PLUS plans on a scale of 1 : 50,000. (2) The land use regulations contained in the DSC-PLUS are not detailed enough, especially for the categories "intensive, mechanized agriculture" and "livestock and pasture farming" (38% of the area). Owing to a lack of funds the competent institutions – SF, SAG, INRA and the Municipios – are unable to monitor adherence to the land use regulations on a broad scale. (3) Due to a lack of funds, the GIS built up under the DSC-PLUS is no longer in operation and has become outdated. (4) Systematic control of adherence of land use to the provisions of the DSC-PLUS has not been carried out since 1995. However, the violations against the land-use regulations mainly involved areas used for agricultural purposes and pasture farming. The areas classified as forest and nature protection areas (62% of the area) are less affected by this, partly because they are located farther away.

(b) Safeguarding of national parks and protected areas: The DSC-PLUS defined the national parks Noel Kempff and Ambro as well as three new national parks and four regional protected areas. In addition, more protected areas were declared on the community level (total area of the protected areas: 6 million ha). The operational situation of the Noel Kempff and Ambro parks is unsatisfactory. The protected forest areas defined under the DSC-PLUS are, for the most part, respected. However, this was not the result of improved legal protection by the DSC-PLUS but rather of the fact that many of the protected forest areas are relatively isolated.

(c) Protection of the habitats of the indigenous population: All indigenous territories in the DSC area (8.1 million ha) were charted and demarcated. 1.4 million ha have since been assigned a legal title and registration is pending for the rest. The documents already submitted already offer the indios legal protection for their habitats. Competent umbrella associations have since been formed within the indigenous communities that effectively represent the interests of the indios.

With regard to the DSC-PLUS, the elaboration and establishment of a legal basis for regional planning and land use planning partially achieved the project purposes. There were deficits tied to the insufficient preparation of detailed land use plans on the community level. Owing to a lack of funds, the land use regulations are not being adequately controlled, which constitutes a sustainability risk, especially for the areas being used for agricultural purposes and pasture farming in accordance with the DSC-PLUS (38% of the total area). On the other hand, protection of the areas designated for forest use and of the protected areas defined in the DSC-PLUS (share: 62%) has improved since they can no longer be used for other purposes. What is more, illegal clearing is comparatively seldom in these areas. In some areas, a lack of budget allocations jeopardizes the sustainability of the achievement of the project goals. In the field of safeguarding existing national parks, due to a lack of funds the executing agency SNAP is unable to ensure adequate operation of the Ambro park. Again due to a lack of funds, at the school for park supervisors that was financed out of FC funds currently only 10% of the capacities are being used. Thus far the operation of the Noel Kempff Mercado national park by the NGO FAN has been satisfactory, yet it is unclear whether FAN will extend the management contract, which is scheduled to expire in 2005. If the contract is not extended, the park will then be operated by SNAP, which works less efficiently. As regards the land titles, it can be noted that because INRA has insufficient funds, the actual process of entitlement in the indigenous areas has hardly made any progress thus far. Of the altogether 8.1 million ha of indigenous areas that have been registered, formal titles have been issued for only around 17%. Overall, we judge the project's effectiveness to be still satisfactory (rating 3).

In view of the persistent pressure to use the natural resources of the DSC, the relevance of the project is high. In principle, the approach selected by the project of creating a binding land use plan according to relevant criteria was a sensible way to improve the way the land is being used. However, in order for the impacts of the DSC-PLUS on the overall objective to be sufficiently noticeable, more detailed community PLUS plans need to be drawn up that can then be used as a basis for operational land use decisions. For the areas being (partially) used for agricultural purposes that are particularly affected by the scheme (share: 38%), it must also be ensured that adherence to the regulations of the DSC-PLUS and the community PLUS is controlled more effectively. Currently it is not being controlled adequately. However, for just under 2/3 of the total area classified as forest or protected areas the use of the land has improved. Therefore, overall we judge the project's significance and relevance as still sufficient (rating 3).

We also consider the costs of the main project components to be appropriate. Most of the project output of the DSC-PLUS comprises legally binding regulations on land use on a higher level. Nevertheless, detailed communal PLUS plans need to be added to these regulations to make them more effective, which is currently not the case. The current project output is not yet satisfactory. Overall, we judge the project's efficiency to be slightly insufficient (rating 4).

We judge the developmental effectiveness of the project to be sufficient overall (rating 3).

General Conclusions applicable to other Projects

To better apply national or regional framework plans for land use, detailed plans need to be added that will make it possible to make decisions on operational land use. Incentives need to be created so that dependent local authorities – insofar as they have decision-making power over the use of local land – can draw up local land use plans in sufficient detail. Such an incentive could be revenues for the communities that are generated out of certain types of land use authorization (i.e. community land use plan and approved operating plans as a basis for land taxation on the community level). Therefore, giving communities sufficient financial autonomy is a key prerequisite for this kind of project. Further, appropriate measures need to be applied in order to ensure that the implementing institutions have enough capacities to apply and implement the planning regulations. Two possible instruments could be (a) staff support measures and (b) cooperation with other donors or TC to support the implementing institutions for a sufficiently long period.

Legend

Developmentally successful: Ratings 1 to 3	
Rating 1	Very high or high degree of developmental effectiveness
Rating 2	Satisfactory developmental effectiveness
Rating 3	Overall sufficient degree of developmental effectiveness
Developmental failures: Ratings 4 to 6	
Rating 4	Overall slightly insufficient degree of developmental effectiveness
Rating 5	Clearly insufficient degree of developmental effectiveness
Rating 6	The project is a total failure

Criteria for the Evaluation of Project Success

The evaluation of the "developmental effectiveness" of a project and its classification during the ex-post evaluation into one of the various levels of success described in more detail below concentrate on the following fundamental questions:

- Are the **project purposes** reached to a sufficient degree (aspect of project **effectiveness**)?
- Does the project generate sufficient **significant developmental effects** (project **relevance** and **significance** measured by the achievement of the overall development-policy objective defined beforehand and its effects in political, institutional, socio-economic and socio-cultural as well as ecological terms)?
- Are the **funds/expenses** that were and are being employed/incurred to reach the objectives **appropriate** and how can the project's microeconomic and macroeconomic impact be measured (aspect of **efficiency** of the project conception)?
- To the extent that undesired (**side**) **effects** occur, are these tolerable?

We do not treat **sustainability**, a key aspect to consider for project evaluation, as a separate category of evaluation but instead as a cross-cutting element of all four fundamental questions on project success. A project is sustainable if the project-executing agency and/or the target group are able to continue to use the project facilities that have been built for a period of time that is, overall, adequate in economic terms, or to carry on with the project activities on their own and generate positive results after the financial, organisational and/or technical support has come to an end.