

Ghana: Village Infrastructure Programme

Ex-post evaluation report

OECD sector	31110/Agricultural policy and administrative management	
BMZ Project number	1997 65 199	
Project executing agency	Ministry of Food and Agriculture	
Consultant	-	
Year of ex-post evaluation	2006	
	Project appraisal (planned)	Ex-post evaluation (actual)
Start of implementation	3rd quarter 1997	4th quarter 1998
Period of implementation	8 years	6 years
Investment costs	US\$ 60.0 million	US\$ 36.0 million
Counterpart contribution	US\$ 13.0 million	US\$ 1.6 million
Finance, of which FC funds	EUR 5.39 million (US\$ 7.0 million)	EUR 5.32 million* (US\$ 5.1 million)
Other institutions/donors involved	IDA, IFAD	IDA, IFAD
Performance rating	4	
• Significance/Relevance	4	
• Effectiveness	4	
• Efficiency	4	

* Residual funds of EUR 74,000 will be allocated for other projects.

Brief Description, Overall Objective and Programme Objectives with Indicators

Implemented nationwide, the programme aimed at boosting agricultural production and at increasing marketing activities in the targeted village communities, which was to make a contribution to raising farming income and supporting decentralization (overall objective). The open programme comprised measures for improving agricultural water supply, rural transport and post-harvest infrastructure as well as consultancy services and institution-building measures. It was largely based on the World Bank's project appraisal report on the Village Infrastructure Project (VIP) and was cofinanced with FC funds in the infrastructure components (joint financing).

Indicator for the overall objective: After programme completion, the income of the beneficiaries has risen by at least 25%.

Indicators for the programme objective achievement:

- Increase in outputs of programme farmers by 25% for grain and 20% for vegetables (irrigation component)
- Rise in the ratio of programme villages accessible with vehicles to 50% (rural transport)
- Increase in the quantity of processed agricultural produce by 25% (processing equipment)

- Reduction of post-harvest losses by 50% (post-harvest protection)

Overall objective achievement was to be verified by a baseline survey, which was not, however, carried out. No survey was conducted on the indicators for programme objective achievement, either. Objectives achievement can therefore only be assessed on the basis of plausibility.

Programme Design/Major Deviations from Original Programme Planning and Main Causes

The programme adopted a strict demand-side approach. Implementation responsibility lay with the implementing unit set up specially for this project in the Ministry of Food and Agriculture, the Rural Infrastructure Coordination Unit (RICU). RICU was in charge of overall planning and steering, monitoring and financial administration, while the district administrations were responsible for construction work in the specific individual projects, with guidance only from RICU. Altogether, the programme consisted of the following components, with only 1-3 cofinanced from FC funds:

1. Water supply for agricultural purposes and to a limited extent also for drinking water
2. Improvement in rural transport
3. Improvement in post-harvest protection
4. Advice and training for villages, district administrations and NGOs
5. Management of the project by the Rural Infrastructure Coordinating Unit (RICU)
6. Project preparation and pilot measures prior to actual project implementation

During implementation, a distinction was drawn between two types of individual projects:

- Public infrastructure, such as access roads, water basins or drill holes
- Private goods, such as post-harvest protection measures or micro-irrigation systems.

The public infrastructure was selected by the district assemblies as part of the respective district development plan. Major criteria for the approval of a project application for finance from the competent regional office of the RICU were proof of sufficient implementation capabilities and a district contribution of five to ten per cent of total investment outlay.

There were considerable deviations from the original design in the physical components. The main ones were: (a) In rural water supply, there was a distinct shift in the specification of inputs in favour of well drillings. Storage basins and drains were only implemented in individual cases. (b) There was a large shortfall from the volume originally planned for feeder roads, village access roads and farm vehicles. (c) Contrary to the original plans, the funds employed for measures in post-harvest infrastructure were largely allocated for establishing markets that were not originally envisaged. (d) In the credit-based private goods component, much less equipment was delivered than originally planned.

The deviations are partly attributable to the demand-side approach (drinking water supply is a priority of the districts and municipalities), in part to the interest of the World Bank in using the programme to complete unfinished projects (markets) from the predecessor project.

The costs of the project amount to US\$ 36.0 million, instead of US\$ 60.0 million as estimated at appraisal. The reasons for this are: (a) Counterpart finance on the Ghanaian side fell well short of expectations. (b) The financial participation of the districts and municipalities/target groups in the individual measures was much less than originally assumed. (c) Approx. US\$ 10 million originally pledged by IFAD and the World Bank was not paid out in the programme. (d) FC finance diminished due to exchange rate fluctuations by about US\$ 2 million.

Key Results of Impact Analysis and Performance Rating

Building supervision was a major weakness in the programme as the local consultants evidently lacked the necessary competency and authority and they were not properly monitored either by the districts or RICU. This resulted in inept technical designs, poor execution and delays in construction. For example, none of the new dams is operational due to technical deficits so that only the small number of rehabilitated dams can perform their irrigation function.

Owing to the marked deviations between the actual and planned package of measures, the programme objective was not achieved because the majority of components that would have contributed to agricultural development were heavily curtailed or suffered from technical defects. Certain measures (wells and roads) have made an important contribution to rural poverty reduction. Involving district administrations in implementation responsibility was an important step towards decentralization.

The private goods component (approx. 6% of total funds allocated) was originally administered by a District Rural Infrastructure Fund (DRIF) set up at the district assemblies. These were to conduit loans to the applicants and repayment to the district assemblies was to be reallocated in a revolving system. Due to a lack of financial know-how in the district assemblies and at RICU and very low repayment rates (< 30%), the programme design proved unsuccessful. In the new approach introduced in 2001, the project funds were channelled into an Apex fund maintained by the central bank, which was responsible for selecting financial intermediaries. These were to allocate the funds to final borrowers applying banking criteria. The new approach has also largely failed. The reasons for this were the central bank's strict terms and conditions and complicated procedural requirements for the participating financial intermediaries, with largely no access granted to NGOs engaged in the financial sector. The agricultural banks involved gauged the terms and conditions for receiving the Apex funds to be unattractive and the few banks taking part in the VIP were not prepared to do without their usual request for collateral, which the poor population were hardly able to supply. The final borrowers still owe considerable arrears, which is why the participant banks have delayed repayments to the central bank, but they have not been penalized for this.

The impacts of the programme principally lie in the socio-economic sector and in strengthening district administrations, and in part also the area councils, in performing their tasks. Added to this are temporary employment effects through building measures. Poverty impacts result primarily from the benefit of access provided by the roads for developing agriculture. The main impact in the drinking water projects is on health, particularly the reduction of Guinea worm infections that are common in northern Ghana. The rehabilitation of markets has had hardly any growth effects, impacts in most cases being confined to improvements in comfort (including protection against the sun), hygiene and market organization, which is highly valued by the target group, however. The private goods component was held in very high regard by the beneficiaries because it replaced heavy manual work with machinery, but it did not bring about any distinct increase in income.

The World Bank estimates that the programme has yielded a macroeconomic return of 41%. We find this figure implausible, since distinctly fewer income-generating projects were implemented than planned. As contrary to the assumptions of the World Bank not all projects are in effective operation (besides problems with building quality, lack of maintenance in the private goods component also contributes to this.), efficiency falls well short of plan.

More or less, roads and private goods benefit men and women alike. The markets and also the wells are of particular benefit to women as they are responsible for water and food trading. The project was capable of improving gender equality but not enough consistent use was made of

the scope available, by deliberately involving women more in the user committees (market and water), for instance.

The programme was geared to the rural population, where poverty is particularly widespread and many measures, such as feed roads and wells, contribute to reducing poverty.

The programme did not pursue any environmental aims. The transport component causes adverse environmental impacts, because it partly encourages (illegal) logging.

An aim of the programme was to enable the districts to provide more infrastructure facilities on their own, which contributes to good governance and participatory development.

Altogether, we assess the developmental efficacy of the programme as slightly insufficient (Rating 4). The rating is based on the following:

- The programme has two overall objectives: (a) contributing to raising agricultural income and (b) supporting ongoing decentralization. In principle, the results chain rationale of contributing to agricultural development and to strengthening the municipalities through financing public infrastructure (irrigation, rural roads) was plausible (relevance). The scale of the agriculture component was downsized considerably as compared with the original plans, the relevant measures have largely failed and the anticipated impacts (raising farming income) have not been achieved to any adequate degree. The training measures carried out and the implementation arrangements had certain beneficial effects on decentralization (individual projects forming part of the district development plans). Altogether, we rate the relevance/significance of the programme as slightly insufficient (Subrating: 4).
- For the most part, the programme objective geared to agriculture (higher yields) was not attained due to the realignment of the package of measures. The scale of the irrigation components was heavily curtailed; most of the systems built are inoperational. To a large extent, the planned measures in post-harvest infrastructure were replaced by setting up markets. Instead of the planned 20%, only about 6% of programme funds was allocated for the private goods component and the machinery and equipment procured for this is not properly serviced. The roads component had certain beneficial developmental impacts on agriculture, but the scale of implementation was much less than planned. Of the individual projects analyzed in the sample survey, 78% have been put to use, but this rate of utilization is unsustainable since maintenance/servicing is inadequate in all components. Altogether, we judge the effectiveness to be slightly insufficient (Subrating 4).
- The prices for the individual projects kept within the usual market range. Detrimental to production efficiency are the poor building quality due to deficiencies in building supervision and the large percentage of inoperational irrigation facilities as a result of technical deficits. Allocative efficiency has been impaired by the frequently very long standstill periods for the markets due to the inadequate integration of the target group and planning errors, the high loan losses in the private goods component that are not effectively penalized by the banks and the rates charged for the operational water supply systems that do not cover operating costs. Altogether, we judge the efficiency of the programme to be slightly insufficient (Subrating 4).

General Conclusions

- Traditional authorities, particularly intact ones like the chiefdoms in Ghana, must be incorporated in planning and designing decentralized infrastructure projects to avoid conflicts later on.
- Financial sector components should not be implemented within the executing setup of an infrastructure project, but should instead be carried out by executing agencies that meet the institutional requirements of the financial sector approach.
- Projects aimed at strengthening the decentralization process are usually geared to the longer term and comprise a variety of individual donor programmes. Where possible, donor alignment should match up the individual projects so that they can be implemented by one central executing institution.
- As far as possible, the users should be made responsible for servicing building constructions, in which they have a direct interest. This improves prospects for sustainability in infrastructure. Consequently, management committees should also be made responsible for collecting fees. Their membership should comprise actual users instead of politicians and administrators.
- In similar projects, the design of the implementation plan and appropriate awareness and training measures for user groups should seek to ensure that women are properly represented in the management committee and that they occupy positions of responsibility.
- The present programme has shown that, though efficient, it is also risky to fully rely on the assessment findings of other donors in international joint financing projects with a clear allocation of tasks. In the case in hand, a more critical appraisal of the project design and the implementation monitoring, which were largely carried out under the auspices of the World Bank, might have revealed major deficits earlier on and countermeasures or a programme termination decision could have been taken.

Legend

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

Criteria for Evaluating Project Success

The evaluation of the developmental efficacy 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 objectives** 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.