

Kosovo Region: Emergency Aid Programme Energy – Phases I - III

Ex-post evaluation

OECD sector	Economic infrastructure / 2	3063
	40 451 Emergency Aid Pro 40 568 Emergency Aid Pro plementary): 40 558 Emergency Aid Pro stment): 40 566 Emergency Aid Pro plementary) 40 772 Emergency Aid Pro 66 031 Emergency Aid Pro ease): 65 926 Emergency Aid Pro rgency measure): 255 Project-related training million (FC grant)	ogramme Energy I ogramme Energy II ogramme Energy II ogramme Energy III: ogramme Energy III ogramme Energy III
Project-executing agency	Korporata Energjetike e Kosoves-KEK	
Consultant	Vattenfall Europe Power Consult (VEAG) / STEAG	
Year of ex-post evaluation	Phases I and II: 2002/ Phase III: 2004	
	Project appraisal (planned)	Ex-post evaluation (actual)
Start of implementation of Phase I:	2nd quarter 2000	2nd quarter 2000
Period of implementation of Phases I	30 months	30 months
Investment costs	EUR 49.07 million	EUR 49.07 million
-	EUR 49.07 million EUR 21.03 million	EUR 49.07 million EUR 21.03 million
Investment costs		
Investment costs Counterpart contribution Financing, of which Financial	EUR 21.03 million	EUR 21.03 million
Investment costs Counterpart contribution Financing, of which Financial Cooperation (FC) funds	EUR 21.03 million EUR 28.04 million	EUR 21.03 million EUR 28.04 million
Investment costs Counterpart contribution Financing, of which Financial Cooperation (FC) funds Other institutions/donors involved	EUR 21.03 million EUR 28.04 million UNMIK	EUR 21.03 million EUR 28.04 million
Investment costs Counterpart contribution Financing, of which Financial Cooperation (FC) funds Other institutions/donors involved Performance (overall rating)	EUR 21.03 million EUR 28.04 million UNMIK 3	EUR 21.03 million EUR 28.04 million

Brief Description, Overall Objective and Project Objectives with Indicators

All phases of the project dealt with emergency measures to maintain in operation a power station that is of central importance to ensure the power supply in Kosovo. The <u>project objectives</u> were to provide the population with sufficient power for heating purposes at least in the winters of 2000 to 2003 and to reduce the pollution of air and water caused in power generation to an acceptable level. The overall objectives were to contribute swiftly and for a limited period of time to stabilising

the political situation in Kosovo and to protecting the health of the population. The investments comprised the repair and environmental protection measures for units 1-5 of the power plant Kosovo A. The individual measures were planned, adjusted and modified on a short-term basis depending on the repairs required at a certain time and on sometimes unforeseen circumstances. The complementary measure and the training measure were aimed to enable the operating staff to maintain rudimentary operation of the plant in the medium term.

The indicator for the achievement of the objectives was defined at the generation of at least approx. 5,200 GWh of electrical energy under phases I-III, i.e. in the period from 12/2000 to 6/2005. This indicator was derived from the indicators for the original generation capacity calculated and defined at the time of the project appraisal. Given a power production of 5,151 GWh the achievement of this objective was 99%.

As regards the <u>overall objective</u> of making a timely limited contribution to stabilising the political situation in the Kosovo region and to protecting the health of the population no separate indicator was determined because these objectives are difficult to quantify.

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

The originally planned fundamental rehabilitation of unit 5 of the power station Kosovo A was cancelled after an analysis of the exact damage had been made and because the costs appeared to be unexpectedly high. For this reasons the project measures under phases I and II comprised at a first stage emergency measures and at a later stage measures aimed at increasing safety and improving the availability and efficiency in the areas of steam boilers, coal transport, treatment of water and ancillary facilities of units 3 and 4 of the power station Kosovo A. Staff training measures were covered under a complementary measure. In addition, the electrostatic filters of these units were repaired and the waste water treatment and chemicals storage facilities rehabilitated.

The project measures of phase III comprised the performance of urgent repair and stabilisation works, initially at units 1, 3 and 4 of power plant Kosovo A and covering steam boilers, pumps, turbines and ancillary facilities. After a large fire and the total breakdown of the power station Kosovo B in July 2002 additional emergency repair measures were required in order to restore the operation of units 2 and 5 of power station Kosovo A. In addition, the systems to reduce the share of suspended matter in the wastewater of the power plant were rehabilitated.

As envisaged in the appraisal reports all measures were adapted flexibly so as to allow immediate reaction to any mostly unexpected disruptions and deficiencies by carrying out the required repair works. The measures were also adapted to the volume of funds available and selected in a manner to create the technical prerequisites for a sufficiently reliable operation with adequate safety standards and an acceptable level of environmental pollution.

Key Results of the Impact Analysis and Performance Rating

As compared with the state of the power plant Kosovo A at the time of phase I, under which the only option seemed to be to tear the plant down, and the desolate personnel situation at the time when the measures started it can be stated that substantial improvements were achieved in all operating areas under the technical responsibility of the consultant. This was due, besides the repairs that were conducted, to the improved operating processes that were introduced under the staff support measure and the operational support provided by the consultant until the end of May 2003.

The investments made in phases I and II and under phase III (emergency measure) were financially advantageous for the project-executing agency KEK. Phase III, including the increase for units 3 and 4, however, only produced losses of approx. EUR 12.35 million (from a purely micro-economic perspective). But these losses are more than compensated for by gains achieved in other phases.

The only practicable option to ensure the power supply for heating in the short term would have been to import power from abroad. However, the costs produced under this alternative would have been about one third higher than otherwise. From today's point of view all individual phases (I to III) proved to be advantageous from a macro-economic perspective. Around EUR 40 million were saved due to the fact that no power was imported.

With its targeted protection measures the project contributed to reducing the environmental pollution caused by the power plant operation (dust emissions, water pollution, soil pollution from wastewater). However, it had already been clear at the time of the project appraisal that despite the measures introduced it would not be possible to fulfil the European environmental standards. Given the acute emergency situation this is acceptable from today's point of view.

Women and men have equal access to the electrical energy provided. The projects did not pursue the goal of improving the participatory development or good governance.

Seen from a pure energy perspective the projects were not justified because they missed almost all minimum criteria applying to the energy sector. However, bearing the particular political circumstances prevailing in Kosovo in mind, and especially given the urgency of providing power for heating purposes in order to prevent immediate hardship in the critical winters following the end of the fighting, the intervention can be factually justified. It must, however, be critically stated that the transitional government and the project-executing agency have up to now failed to consequently take steps to improve the desolate sectoral framework conditions (high technical and non-technical losses, low collection rate, low level of cost coverage) in order to create the conditions for finding a durable solution to the power supply bottlenecks.

So far the results achieved by the projects have not been sustainable (beyond the use of 1 to 2 years of the individual phases). If the situation is to be improved in the long run, it would be required, in parallel with a reorganisation of the sectoral framework conditions, to consequently switch from merely implementing emergency repair measures (as practiced up to now) to introducing a fundamental rehabilitation of the power plant Kosovo A. To realise this it is imperative that the competent Kosovar power utility KEK take a decision on the planned remaining periods of operation of the units and on a technically feasible concept for the unit(s) to be rehabilitated. Moreover, it would have to introduce institutional reforms and put its finances and the power sector as a whole on a sound footing again.

Based on a combined assessment of all impacts and risks described above, we have arrived at the following rating of the project's developmental effectiveness:

Effectiveness

The objectives of the programme were to provide the population with sufficient power for heating purposes at least in the winters of 2000 to 2003 and to reduce the pollution of air and water caused in power generation to an acceptable level. Given an energy production of 5,151 GWh the achievement of this objective was 99%. As had been expected, environmental pollution was reduced and the qualification of the operating and maintenance staff reached the targeted level, however, dropped again thereafter. Overall, we rate the effectiveness of the programme as only sufficient because it was not possible to improve the situation in the energy sector (sub-rating 3).

Relevance/Significance

The project made a noticeable contribution to alleviating the immediate hardship of the population in the critical time after the fighting had come to a halt and especially during the winter months by providing enough power to ensure heating on a rudimentary basis. It is plausible to assume that this contributed to stabilising the political situation in Kosovo at a critical point in time. However, the political situation in Kosovo is still very strained. Still, the temporary successes achieved are clouded by the fact that sector reforms were postponed time and again, and that this also contributed to prolonging the still fragile power supply situation in Kosovo. The protection of people's health was improved due to the fact that emissions from the

power station were reduced substantially, event though it was not possible to meet European environmental standards. Overall, we classify the project's developmental relevance and significance as satisfactory (sub-rating 3).

Efficiency

Since no adequate criteria are available to measure the achievement of political targets, the assessment of efficiency only covers energy-sector aspects. Against the background of the unit costs of imported power of EUR 46.15 per MWh, we consider the dynamic unit costs of the project as a whole of EUR 34.13 per MWh as favourable. This assessment covers all phases of the project. However, the production efficiency is reduced by the unacceptably high technical (18%) and non-technical (29%) losses in the system, which had been apparent for a long time. Against the background of the tariff level, which is sufficient to reach almost full coverage, and a collection rate of only 61%, we assess the allocation efficiency as slightly insufficient. Overall we judge the efficiency of all phases and the project as a whole as slightly insufficient because, even though the most efficient solution was found to close the short-term power supply gap, the overall situation in the power sector is still marked by inefficiency and no convincing measures have been taken to tackle or even eliminate the deficiencies (sub-rating 4).

In consideration of the sub-criteria mentioned above, we rate the developmental effectiveness of the projects as sufficient overall (rating 3). Despite the fact that the project's efficiency was slightly insufficient the results achieved by the project in terms of effectiveness and the type and scope of the project impacts at the level of the overall objectives (relevance/significance) played the decisive role in our assessment.

General Conclusions

In the event of projects with clearly politically motivated objectives (e.g. emergency aid programmes or projects implemented under other exceptional circumstances) the BMZ should give as detailed a description of the relevant political framework for action in its project appraisal assignment to KfW, so that KfW will be able, in the context of the set framework, to make an assessment of the technical facts (e.g. to take the decision not to apply minimum criteria or to compare different alternatives only to a limited extent, etc.).

The targets for the subordinate complementary and training measures were in some cases defined far more broadly than the limited targets defined for the investment measures. This, and the volume of funds provided, which proved to be totally inadequate to achieve a noticeable improvement of the situation, appears to be questionable from today's point of view. It is recommended for future cases to make a sober analysis and presentation of the personnel support and its possibilities, which is compatible with the superior investment measure.

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 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.