

EVALUATION OF NORWEGIAN ASSISTANCE TO
THE ENERGY SECTOR OF SADCC COUNTRIES

P R O J E C T P R O F I L E 5:

NORWEGIAN CO - FINANCING
OF THE WORLD BANK'S POWER
REHABILITATION PROJECT

T A N Z A N I A

Phil O'Keefe (editor)
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LIST OF ABBREVIATIONS

CIDA	-	Canadian International Development Authority
DSM	-	Dar es Salaam
EIA	-	European Investment Bank
EPDC	-	Engineering and Power Development Consultants (of Great Britain)
ESMAP	-	Energy Sector Management Assistance Program (of UNDP and World Bank)
FINNIDA	-	Finnish International Development Agency
GOT	-	Government of Tanzania
IBRD	-	International Bank for Reconstruction and Development (World Bank)
IDA	-	International Development Association
KV	-	kilovolt
KW (or kW)	-	kilowatt
KWh	-	kilowatthour
MEM	-	Ministry of Energy and Minerals
MNRT	-	Ministry of Natural Resources and Tourism
MW	-	megawatt (= 10^3 KW)
NOK	-	Norwegian kroner
NORAD	-	Norwegian Agency for International Development
OPEC	-	Organization of Petroleum Exporting Countries
%	-	percent
PRP	-	Power Rehabilitation Project (of the World Bank)
SIDA	-	Swedish International Development Agency

TANELEC	-	Tanzania Electrical Goods Manufacturing Company Ltd. (in Arusha)
TANESCO	-	Tanzania Electrical Supply Company
TSh	-	Tanzanian Shilling
US \$	-	US dollar

5. NORWEGIAN CO-FINANCING OF THE WORLD BANK'S POWER REHABILITATION PROJECT, TANZANIA

5.1. Background

On June 25th 1986, Tanzania and the World Bank/IDA signed an agreement on a Power Sector Rehabilitation Project totalling US \$ 88.6 mill., including co-financing from several bilateral donors.

The background of the project was a widespread agreement that there were pervasive signs of age, overloading, corrosion and lack of maintenance (primarily due to lack of spare parts) throughout the TANESCO interconnected system as well as in the isolated diesel and gas operated stations. In the period 1981-83, an average of 500 major interruptions in the electricity supply were reported per year. These incidents were socially costly, with major outages cutting such vital services as water in Dar es Salaam for periods of several days and resulting in considerable reduction and increased costs in industrial production. A detailed study of these conditions financed by a World Bank credit provided the basis for the Power Rehabilitation Project (PRP).

The background study also pointed out that improvements were needed in TANESCO's organisational structure and management practices, and it argued strongly that the structure and levels of power tariffs had to be changed. In particular, it was argued that TANESCO's recent electricity tariffs had not been adequate to provide sufficient funds to meet its requirements for operating expenses, debt service and normal capital expenditures, nor to meet the cost recovery covenant of a previous World Bank/IDA loan mainly financing the Mtera hydropower project. As part of the new agreement, Tanzania therefore had to increase the electricity tariff by 67%, effective from 1st March 1986, well in advance of the loan agreement.

The background study also argued that because uniform power tariffs applied throughout Tanzania, a substantial cross subsidy existed between consumers supplied by the interconnected power system and those supplied from isolated diesel plants, where costs are much higher. In the view of the World Bank, such a tariff structure does "not give appropriate signals to electricity users in high cost areas about the real cost of their consumption". (W.B., Staff Appraisal Report: Tanzania PRP, April 1986, p. 46).

Moreover, the World Bank held the view that, "the present structure is strongly distorted in favour of domestic consumers and (to a lesser degree) to industry, and highly discriminatory with respect to commercial users, with rates for the latter more than four times higher than domestic users" (ibid.).

Against this background, the Development Credit Agreement of 25th June 1986 included a paragraph stating that, "The Borrower (i.e. the GOT) shall review TANESCO's tariffs and take appropriate action therein, within sixty days of receiving TANESCO's recommendations on such tariffs." To our knowledge, a comprehensive tariff review has not yet been worked out. However, TANESCO has increased the tariffs several times since March 1986. On January 1st, 1987, another major tariff increase of 25% was implemented, and subsequently the tariffs have been raised in 5% steps several times. On the other hand, the World Bank/IDA argued that much bigger tariff increases were required in order to eliminate TANESCO's deficit. In early 1988, the Bank suggested another major tariff increase "of the order of 90% to be implemented as soon as possible". (Report from Bank Supervision Mission dated March 4, 1988.).

It is worth noting that the very same institutions (WB and IMF, ??) which recommend strongly to combat inflation through deflationary macro-policy, at the same time recommend inflationary price increases on the micro-level. It should also be noted

that because almost 90% of TANESCO's investments have been financed by foreign loans, the recurrent devaluations of the TSh since 1986 have resulted in a tremendous increase of TANESCO's debt burden and debt service in terms of TShs, and, as a consequence, contributed grossly to the utility's increasing deficits.

5.2. Project objectives and description

The World Bank/IDA stated the major objectives of the project as follows:

- (i) to re-establish the operating performance of TANESCO's power system to reasonable levels of reliability and service;
- (ii) to assist the Government of Tanzania and TANESCO in developing an economically sound and financially feasible least-cost development programme for the power sector;
- (iii) to assist TANESCO in improving its financial performance, including tariff levels and structure;
- (iv) to assist TANESCO in expanding its management and operations training programmes, particularly in the areas of repair and maintenance activities, bill collection, accounting and financial management; and
- (v) to stimulate improved availability and production efficiency of household energy supplies.

The project was planned to consist of the following main components:

- (a) rehabilitation of the Mwanza-Nyakato and Mwanza South diesel stations, the Ubungo (DSM) gas turbine and diesel station, and several other isolated diesel power plants;

- (b) rehabilitation of all 220 KV, 132 KV and 66 KV transmission lines, except those constructed quite recently, and rehabilitation of about 3600 km of 33 KV and 11 KV main distribution lines in major towns;
- (c) rehabilitation of substations, switchgears and compensation equipment;
- (d) supply and installation of new communications equipment and repair of existing units;
- (e) new vehicles, spare parts, and tools and equipment;
- (f) technical assistance and training, inter alia, five expatriate engineers and seven distribution and/or diesel plant technicians, a senior financial adviser, a computer specialist and five technicians/operation-instructors.
- (g) support to two or three commercial pilot charcoal production units near urban areas, using steel or brick kilns, including construction of access roads to forests, vehicles, tools and operator training;
- (h) systematic introduction of more energy efficient charcoal stoves into the Dar es Salaam market, including training of stove manufacturers and/or artisans;
- (i) a feasibility study of the manufacture or importation of electric cookers.

TANESCO would implement the power rehabilitation components (a) - (f), and the Ministry of Energy and Minerals (MEM), in cooperation with the Forestry Department of the Ministry of Natural Resources and Tourism would be in charge of implementing components (g) - (i).

5.3. Planned project costs and financing

The World Bank Appraisal Report of April 10, 1986, estimated the total costs of the project at US \$ 88.6 mill., of which US \$ 85.9 mill. were for power rehabilitation, cf project components (a) - (f) in the preceding section, and the remaining US \$ 2.7 mill. were for traditional energy development and feasibility study of electric cookers, cf. components (g) - (i) above.

Among the power components, the distribution component (US \$ 29.9. mill.), rehabilitation of generation units (US \$ 8.9 mill.), technical assistance and training (US \$ 7.1 mill.) and rehabilitation of transmission substations (US \$ 5.1 mill.) would account for the major share of costs.

The local cost component of the total project was estimated at US \$ 12.4 mill. (14%), whereas the foreign exchange component was estimated at US \$ 76.2 mill. (86%).

Interest costs during project implementation were estimated at US \$ 14 mill. (local currency only), raising the total financing requirement to US \$ 102.6 mill.

It was planned that the World Bank/IDA should provide US \$ 40 mill. (45.1%), whereas various co-financing agencies should provide US \$ 37.4 mill. (42.3%) and TANESCO should contribute US \$ 11.2 mill. (12.6%) in local currency loans.

The original financing plan of April 1986 looked as follows:

Power

World Bank/IDA	US \$	37.3 mill.
CIDA		10.2
FINNIDA		2.3
NORAD		8.3
European Investment Bank (EIB)		6.0
TANESCO		11.2
Others (mainly Kreditanstalt für Wiederaufbau and Kuwait Fund)		10.6

Power - total 85.9

Energy

World Bank/IDA 2.7

Total financing: US \$ 88.6 mill

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The Finnish grant of US \$ 2.3 mill. actually turned out to be no co-financing, as these funds were used in a separate FINNIDA project to rehabilitate 47 Watsila generators, 12 of which are connected to the grid.

In an office memorandum dated 23 May 1988, the World Bank /IDA stated that the planned amount of financing had not materialised. The main reasons for this were that the Kuwait Fund had not disbursed any of the expected Kd 1.9 mill. credit to TANESCO due to the Government of Tanzania being in arrears of service payments on previous Kuwait Fund credits, and that EIB-financing and CIDA financing for rehabilitation of transmission lines and training did not come through. As a result, the rehabilitation of transmission lines and the generating units had to be reduced in scope, and most of the training component was eliminated. Moreover, in view of the high priority of repairing the diesel units in Mwanza area, the World Bank/IDA agreed to finance this

component, which was originally to be financed by the Kuwait Fund.

As a result of lack of financing, the total costs of the power rehabilitation project were adjusted downwards from originally US \$ 85.9 mill., to US \$ 64.7 mill. in May 1988.

The revised financing plan of May 1988 was as follows:

Power:

World Bank/IDA	US \$	44.4 mill.
Norway		9.6
TANESCO		1.5
Others (mainly KfW)		9.2

Power - total 64.7

Energy

World Bank/IDA		3.1
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Total financing US \$ 67.8 mill.

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As far as we know, this financing plan is still in force.

5.4. Implementation of the project as a whole

In the office memorandum of May 23, 1988, the World Bank/IDA complained that the project had had a slow start-up with contracts in some instances being awarded more than a year later than originally envisaged. This was stated to be due partly to delay in making the IDA credit effective, but also to delays in processing bids and contract documents and to retendering of some contracts due to non-responsiveness of bidders. Out of the total IDA credit, of US \$ 47.5 mill., only about US \$ 8.7 mill. had been disbursed as of March 31, 1988.

TANESCO appointed the British company Engineering and Power Development Consultants (EPDC) to monitor implementation of the project. Their monthly reports show that implementation was not quite smooth and that many delays occurred. For example in their report of November 1987, EPDC stated that some material for the project "has been delayed excessively" in the Dar es Salaam port "while waiting for advance payments to be made".

They also noted that, "interest continues to occur on late payments to suppliers and contractors", and they reported that some companies had stated that they would not ship any goods "until they have received the advance payment required by the contract".

Moreover, it was stated that "there was still a shortage of TANESCO staff in the regions working on this project. Planning of rehabilitation of the distribution systems was not therefore proceeding at the required pace."

In their report for May 1988, EPDC stated that "essential material was still being held in Dar es Salaam port". Lack of this material was preventing the contractor from commencing work on the project component Distribution Construction, and "substantial claims are accumulating".

Again, it was also emphasised that, "TANESCO have a shortage of competent staff allocated to the project and it is expected that there will be a number of problems to resolve when distribution construction commences".

On the whole, lack of competent TANESCO staff and delayed payments to suppliers seem to be problems which accompanied project implementation throughout. For example, in their report for July 1989, EPDC noted that "GTA of Germany continue to hold shipment of material until they are paid for past shipments. This is now affecting the project and additional costs are being

incurred by the distribution construction contractor and subcontractor".

At the team's visit in Tanzania in November 1989, all power stations in Musoma and Mwanza had been rehabilitated, and three generators of 4 MW each at Ubungu (DSM) were under rehabilitation. However, there was already a severe shortage of spare parts for the rehabilitated units and an immediate danger of serious breakdowns. TANESCO explained this situation by large delays in implementation of the project, which had as a result that spare parts were used up before rehabilitation started. In addition, there had been theft of spare parts as well as lubricants, and the consequent lack of lubrication oil had resulted in more use of spare.

Rehabilitation of the distribution system includes 11 towns, but by November 1989 the work had been finished only in Arusha, whereas Dar es Salaam was supposed to be finished towards the end of that month. In Morogoro, Mwanza and Mtwara, work had not yet started. Rehabilitation of the distribution system is done by private contractors. The delays in implementation were, according to TANESCO, mainly due to delayed planning and delays in material shipments.

The total budget for the distribution component (excluding interest during construction) was US \$ 30 mill., of which about US \$ 22 mill. had been spent in mid November 1989, indicating about 70% implementation progress.

The foreign exchange cost for rehabilitation of the transmission lines, including substations, are mainly covering materials, whereas the work is carried out by TANESCO staff, with exception of the Canadian built lines.

For the Canadian built lines, Canada supplied all materials and three experts, and TANESCO staff worked together with them. Rehabilitation of the 132 KV Canadian built line from Hale to

Moshi was completed in November 1988, and the 132 KV line from Chalinze to Morogoro was completed in November 1989. Rehabilitation of the 220 KV line from Morogoro to Dar es Salaam, including substation, was still to be undertaken.

TANESCO alone is responsible for rehabilitation of the lines from Chalinze to Hale and from Hale to Tanga. Chalinze - Hale had reached 70% implementation progress in November 1989. On the stretch from Hale to Tanga rotten wooden poles have to be replaced. Because this work has to be done without interruptions of the power to Tanga during day-time, and only with very short interruptions at night, the implementation progress had been very slow, reaching only 10% in November 1989.

The technical assistance component, estimated to cost US \$ 7.1 mill., has experienced a very slow implementation. A Canadian computer expert (who was not from MANITOBA) had stayed for a very short time, and according to TANESCO, he had made "a lot of havoc" before disappearing. At the time of our visit, TANESCO expected a financial expert to arrive in January 1990, and also two computer experts might arrive in 1990. The hydropower utility MANITOBA of Canada had promised to provide these people. On the whole, technical assistance is far behind schedule.

The electrical cooker project under the energy component had not been implemented at all. According to TANESCO, this was partly because of high electricity demand compared to effective capacity, and partly because cookers had become expensive in terms of TShs after recurrent devaluations.

Another part of the energy component, improvement of charcoal production in the coast region, had also been delayed and was supports to start in December 1989.

5.5. The NORAD-fianced components of the Power Rehabilitation Project

NORAD-cofinancing comprises two sub-components of the Power Rehabilitation Project, viz. contract no. 05, Supply of transformers; and contract no. 07, extensious of substations, including rehabilitation of Kiyungi substation.

The total estimated costs of the two contracts are NOK 53.2 mill., but the total project budget frame was set at NOK 60 mill. (US \$ 9.6 mill.). We have not seen any agreement on how the difference of NOK 6.8 mill. between the contract costs and the budget frame should be spent.

The NORAD financing is not co-financing proper, because, according to World Bank regulations, all project components in co-financing should be subject to international tendering. By contrast, the NORAD grant is tied to purchases in Norway or purchases from the NORAD supported electrical company TANELEC in Arusha. In NORAD, such tied co-financing is called "parallel financing".

The administration of project implementation from the Norwegian side (i.e. disbursements, accounting and supervision) was left to the Export Council of Norway. Main contractor is EB National Transformer (formerly National Industri A/S) of Drammen, Norway, with TANELEC of Arusha, Tanzania, as subcontractor.

The agreement on this grant was part of the County Agreement between Tanzania and Norway signed in 1987. Project implementation was planned to start on 30.09.87 and to be concluded in May 1989, but allowing for some extra implementation time for Kiyungi substation.

5.6. Implementation of the NORAD financed components

On the whole, project implementation seems to have advanced fairly well, although with some problems and delays.

Regarding contract no. 05 - transformers - EPDE stated in its report for July 1989 that, "a number of minor faults (finishing leaks) on TANELEC manufactured transformers continue to be irritating". At the team's visit in Dar es Salaam in November 1989, TANESCO representatives told that these faults had been rectified.

By the end of 1989, a total of NOK 30 mill. have been disbursed, indicating an implementation progress of 56% as compared to originally estimated costs. This indicates that implementation was far behind schedule, although not worse off than implementation of the Power Rehabilitation Project as a whole.

5.7. Some considerations on co-financing with the World Bank/IDA as a channel of Norwegian aid to the energy sector

Co-financing is used in almost every World Bank/IDA-financed project. In general, co-financing covers about half of total project costs, implying that the financial leverage of the World Bank/IDA is about doubled through this arrangement.

The establishment of the OPEC Special Fund in 1976 boosted the co-financing activity strongly, because Arab countries had little administrative and technical capacity.

From the point of view of the World Bank/IDA, co-financing is a mechanism of raising sufficient funds for large projects or programmes, and at the same time a means of coordination of aid. In the Bank's view, co-financing improves the coherence of large

projects/programmes, compared with the piecemeal and often rather random implementation of such projects by several uncoordinated donors.

Moreover, the World Bank/IDA considers its technical competence and administrative capacity as good, and among insiders the prevailing view seems to be that the Bank is capable of increasing this type of aid.

In practice, a co-financed project or programme is elaborated and planned in cooperation between the recipient country and the main donor (World Bank/IDA). Then a donors' meeting is invited. At that meeting, donors (potential co-financiers) are invited to choose what components of the project/programme they want, and the World Bank/IDA will finance the components which are left over.

The World Bank then makes specific agreements with the different co-financing donors, followed by agreements between each donor and the recipient country.

Referring to its own "Guidelines for Procurement under IBRD loans and IDA Credits" and the general objectives underlying those Guidelines, the World Bank will urge donors to untie their assistance in co-financing. However, it is worth noting that in actual practice the World Bank/IDA have accepted tied co-financing.

The Bank's supervision of implementation is done by teams of experts from the headquarters in Washington, occurrently with participation of co-financing donors. In the case of the Power Rehabilitation Project, a team from the headquarters has visited Tanzania for two weeks twice a year and produced progress reports for the Washington office.

We doubt that such short visits at six months' intervals are really sufficient to get an adequate overview of such a large

project being implemented in several parts of the country. The implementation problems and delays referred to in section 5.4. give some support to our doubt. It should also be noted that TANESCO's consultant towards the contractors, the consulting company EPDC of Britain, has had six experts working continuously in Tanzania and submitting reports to TANESCO every month.

From NORAD's point of view, co-financing with the World Bank seems to be attractive mainly because it lessens their own administrative burden. With this type of financing, NORAD leaves the administration on the Norwegian side to the Export Council of Norway. The main tasks of the Export Council are to make disbursements, keep accounts and, if necessary, to organise and assist supervision missions. Through co-financing NORAD can therefore channel large amounts of aid almost without any own administrative efforts.

In Tanzania, the team got the impression that there is no unambiguous view on co-financing. Within the Government it was stated that big projects/programmes will, of course, favour co-financing. Furthermore, co-financing was seen as a way of removing constraints on donors' technical and administrative capacity and of exploiting specialisation among donors (in the case that the World Bank is not the only main donor in co-financing arrangements).

However, also many disadvantages of co-financing, from the recipient's point of view, were emphasised. First, up to the present, the World Bank has been the main donor in virtually all co-financing arrangements. There is a rule in the Bank that it can not reschedule loan repayments. The Bank will therefore stop new disbursements, including co-financing funds if Tanzania (or any other recipient country) cannot service old World Bank/IDA loans/credits. This possibility is also clearly stated in the agreement between the co-financing donor and the recipient. For example, article V.2. in the agreement between Norway and Tanzania on co-financing the PRP reads as follows:

"If the right of Tanzania to withdraw proceeds from the Loan Agreement has been suspended, cancelled or terminated in whole or in part, Norway may suspend this Agreement pending consultations between Norway, Tanzania and IDA. If the said consultations fail to result in either the restoration of the right of Tanzania to withdraw proceeds from the Loan Agreement or any reasonable prospect thereof, Norway may cancel or terminate its grant in whole or in part".

Obviously, this implies that NORAD gets involved in a kind of World Bank conditionality.

Second, co-financing may cause severe delays in disbursements, and hence escalation of project costs, because of insufficient coordination among donors and shortcomings in donors' procedures. In Tanzania this happened in the case of the Southern Paper Mill in Mufindi as well as the Power Rehabilitation Project.

In TANESCO, who has experience with co-financing from several projects (Kidatu, Mtera, PRP etc.) the assessment of co-financing with the World Bank/IDA as main donor appeared to be more positive than within the Government. The representatives of TANESCO meant that co-financing eases coordination and reduces or avoids overlapping of activities. For TANESCO it is much easier to deal with one main donor than with several uncoordinated donors. On the other hand, also TANESCO emphasised that disbursements, mainly from some of the co-financing donors, had often been delayed, causing increased costs and delays in project implementation.

5.8. Some concluding remarks

From the foregoing some problems of co-financing (as an alternative to bilateral aid) may be identified:

- Up to now, the World Bank/IDA has acted as the main donor in virtually all co-financing arrangements. (Indeed, the arrangement as such is an invention of the World Bank). The World Bank, with more or less collaboration of the recipient country,, designs and plans the project. The result of this work is summarised in a Staff appraisal report which is presented at the donors meeting. This implies that co-financing donors are not, to any significant degree, involved in project design and planning. Hence there is little or no possibility for the co-financing donors to maintain their own aid objectives with regard to the project/programme as a whole. This should be reason for some concern within NORAD, especially because environmental and social impacts of World Bank projects have often been quite controversial.

- We doubt that the World Bank/IDA has the administrative and technical capacity to be the main donor on the present level of co-financing activity. Moreover, with the World Bank/IDA as the only main donor, possible benefits of specialisation among donors cannot be realised.

- The Bank does not apply its own strict guidelines on invitation of international bids on co-financing donors. At the same time, the donors' own regulations on bilateral aid do not appear to be applied when it comes to co-financing. This gives the donors a possibility to use co-financing to tie their aid. (In the case of NORAD co-financing of the PRP, purchases from outside Tanzania were tied to the EB National Transformer of Norway).

- Through co-financing donors get indirectly involved in relationships between the recipient country and the World Bank/IDA. If the World Bank/IDA for some reason stop disbursing their loan, the co-financing donors may also suspend their disbursements. This provision is clearly stated in the agreements, and it gives the World Bank/IDA a very strong leverage of economic power in conflicts with their debtor countries.

