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tangible results.

Sixth evaluation report on
projects and programmes in developing countries.

KfW



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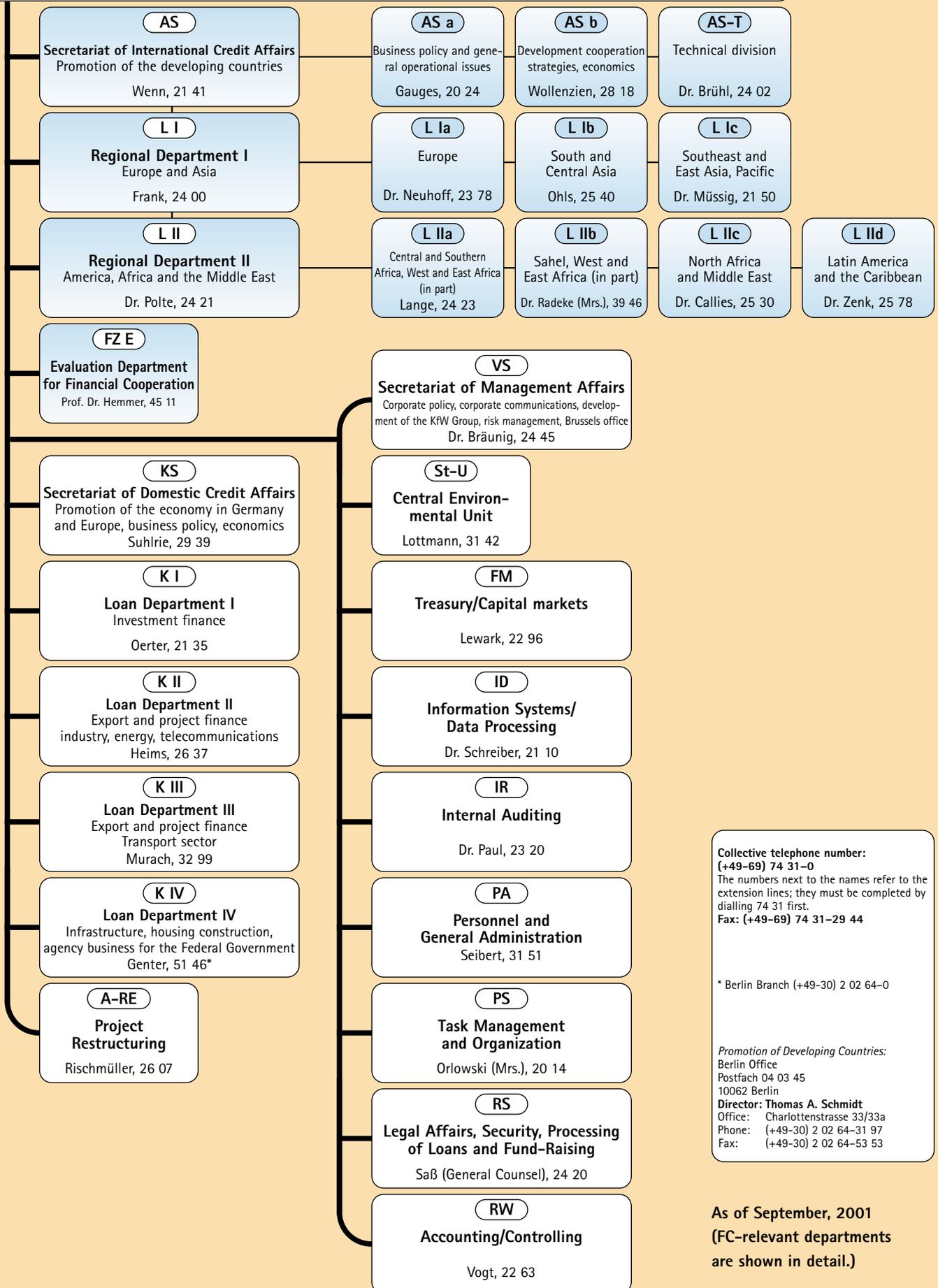
- **Promotion of the German Economy – Export and Project Finance:** KfW is one of Germany's leading financial institutions for capital goods exports. It finances worldwide exports of aircraft and ships as well as machines and other equipment. KfW also offers project finance for industry, transport infrastructure, and other areas.

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As of September, 2001
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FOREWORD



Development cooperation is one of the few policy areas in Germany where binding and systematic performance evaluations are conducted. It is the only way to learn not only from errors but also from our success for future work. And only this way can we render account of the effectiveness of our work and of the use of funds.

In its sixth Evaluation Report, Kreditanstalt für Wiederaufbau once again provides evidence that German Financial Cooperation is able to successfully improve the economic, social, ecological and political living conditions of people in developing countries on a sustainable basis.

The Evaluation Report is based on a sophisticated internal quality control system. This was attested by the study presented by HWWA in 1999, which was commissioned by the Federal Ministry for Economic Cooperation and Development¹. KfW has taken up suggestions made in this study in order to further improve the system of performance evaluation by establishing a central and independent evaluation department. This follows the insight that independent, professional and transparent performance evaluations are necessary in order to ensure that institutions maintain their capability to learn.

I thank KfW and its staff for their committed and competent performance under German development cooperation, which is shown in this remarkable report.

Heidi Wiersma

¹ Bormann et.al.: Analysis and evaluation of performance review in German development cooperation; Institut für Wirtschaftsforschung (Institute for economic research), Hamburg, May 1999

PREFACE

With the present report KfW is informing the public about the results of Financial Cooperation with developing countries for the sixth time.

Altogether, the results confirm the long-term experience that between two thirds and three quarters of all FC projects are successful: in the two-year period 1998/99, 66% of the projects subjected to a final evaluation, for which 76% of FC funds were provided, have been successful.

In view of the difficult economic and political conditions prevailing in many of our partner countries the results are quite encouraging. On the other hand there are reasons to continue looking for possibilities of improving our work. The systematic assessment, evaluation and analysis of the economic, ecological, socio-economic and socio-cultural impacts of all FC projects, as they are performed during the final evaluation, are an important prerequisite for any improvement. In the course of the years a lot of experience has been compiled which helps us to design new projects in an appropriate manner and to make the necessary modifications in current projects. Against this background it is very important to us that our final evaluations be implemented in a critical way and that problems discovered not be glossed over. In the present report we illustrate this process of internal learning in a major chapter focusing on water and sanitation projects in sub-Saharan Africa.

The sustainable improvement of the living conditions in our partner countries, above all for the poorer parts of the population, remains one of our major concerns. This is also an important motive for us to constantly review the effectiveness of our work, to identify areas of possible improvements and also to implement the lessons learnt.



Wolfgang Loh

SUMMARY

For 10 years now we have been presenting the results of German Financial Cooperation with developing countries (FC) to the general public on a biennial basis. This 6th report on the results of Financial Cooperation is based on the evaluation of all 214 projects and programmes representing a total FC amount of approximately EUR 3.3 billion, the developmental effectiveness of which was conclusively assessed in 1998 and 1999.

Overall 66% or 142 of these projects and programmes were developmentally successful. Measured by the amount of funds utilized, this figure is 76%. Thus, the results fall in the range of the long-term average since 1988/1989.

While there are still 72 projects and programmes classified as having very good to satisfactory developmental effectiveness (success ratings 1 and 2), only 17 are classified as clearly unsatisfactory or even as complete failures (ratings 5 and 6). In most cases, partial deficiencies as well as sustainability risks had to be weighted against positive developmental effects in order to decide whether a project or programme was a success or a failure (rating 3 or 4).

In a **cross-sectoral comparison** telecommunications (with only 7 projects or programmes, however), electricity, education and health care as well as the financial sector received the best rating, followed by the structural and sector adjustment programmes. The evaluated projects and programmes in the fields of water and sanitation, environmental protection and resource conservation (with only 5 projects or programmes, however) and the transport sector achieved below-average ratings. The evaluated projects and programmes in the manufacturing industry including the management of mineral resources are those with the least favourable ratings.



Nicaragua – Rehabilitation and extension of power distribution systems.



Primary schools in Pakistan.

A **regional comparison** reveals that Asia, Europe, Latin America and Africa have attained more or less the same levels of success, ranging from 65% (sub-Saharan Africa) to 71% (Asia). Only North Africa deviates considerably from the average with 44%. This was primarily the effect of a “clean sweep” relating to rail transport projects in Egypt, all of which were rated as not successful.

In order to better illustrate the experiences and lessons learned that are hidden behind the statistics, we followed the numerous suggestions offered by readers and, for the first time, have included a more in-depth presentation of some of the projects and programmes reviewed in this report. In light of sub-Saharan Africa’s significance in development policy and the particularly important role of water and sanitation in the FC portfolio, 22 **water and sanitation projects in sub-Saharan Africa** were reviewed more closely. In addition, we have illustrated ongoing water and sanitation projects in sub-Saharan Africa with elements of private sector participation in implementation and operation. Despite the overall positive performance record, the final evaluations also indicate a large number of problems and risks for the developmental effectiveness of the reviewed projects. Apart from internal project deficiencies and exogenous factors, which can hardly be influenced (such as civil war), the shortcomings are primarily in the institutional and sector-policy areas. In most of the completed projects, public institutions – national or municipal – were responsible for implementation and operation. Due to political paternalism, excessive centralization and a lack of performance incentives, these institutions frequently have difficulties in ensuring the efficient operation of the financed facilities on a sustained basis.

Therefore, KfW is making greater efforts to promote private-sector initiatives in water and sanitation projects. The spectrum of this **“public-private partnership” (PPP)** ranges from the assumption of operational responsibility for rural water supply systems by their users and the promotion of private maintenance services to the privatization of some of the operational functions and the granting of long-term concessions to private companies. As experience gathered in some evaluated projects in Côte d’Ivoire, Cameroon, Kenya, Namibia, Senegal and the Central African Republic shows, PPP approaches can contribute to more efficient and sustainable water supply and sanitation services in countries in sub-Saharan Africa. However, they are not a silver-bullet solution. Only when the required conditions and incentive systems can be created, the contractual regulations can be made “watertight” and the observance of these regulations by the contracting parties are monitored by a neutral and competent regulatory authority will private-sector initiatives be able to contribute to the developmental effectiveness. German Financial Cooperation will continue to promote and encourage this development.



1. OVERALL ASSESSMENT

CHARACTERIZATION OF THE OPERATIONS SUBJECTED TO A FINAL EVALUATION IN 1998/99

The performance record presented in this 6th report on the results of Financial Cooperation is based on all 214 projects in altogether 60 countries, which underwent a final evaluation in 1998 and 1999 (see box "The independent evaluation department has started work"). FC funds in the amount of EUR 3.3 billion were made available from the federal budget for these projects. For 26 projects KfW complemented budget funds with capital market funds of approx. EUR 0.8 billion, thus substantially increasing the volume of German development cooperation. For 102 projects, particularly in the poorest developing countries, FC funds were provided as non-repayable grants (30% of disbursements), for all other projects FC funds were extended as loans on preferential terms.

Of the operations under review, 185 are **projects** in the fields of social and economic infrastructure, the manufacturing industry and protection of the environment and nat-



People's Republic of China – Special pipe factory Daye.

THE INDEPENDENT EVALUATION DEPARTMENT HAS STARTED WORK

In the past the ex-post project assessments, the "final evaluations", were carried out under the direction of the regional departments in KfW that were responsible for the projects. Although many external experts were consulted and the results were checked and rechecked internally and externally, this method of evaluating projects was continually under criticism. In view of this, KfW set up a central, independent Evaluation Department at the end of 2000 which will gradually take over the final evaluations, and so the assessment of the developmental effectiveness of the projects, from the regional departments. To ensure its independence the department reports directly to the FC Managing Director. It also has an external expert as Director, Professor Dr. Hemmer, Professor of Economic Theory and Developing Countries Research and a member of the Academic Advisory Council of BMZ. Besides the Director the team consists of a Deputy Director and three project managers. Of course this is not enough personnel to carry out all the final evaluations, of which on average about 100 a year have to be made, entirely on their own. So some of the final evaluations will be handled by external experts commissioned by the Evaluation Department and by temporarily assigned project managers from regional departments that have not been involved in the project in question. These assignments should also promote institutional learning.

The team started its independent evaluations in January 2001 and they expect to have completed around 50 cases by the end of the year. In the transition phase the performance ratings given in the final evaluations that are still being carried out on the responsibility of the regional departments will be coordinated with the Evaluation Department. It is expected that from 2002 all final evaluations will be made by the Evaluation Department; however, the results given in this Report are still based on the old system of evaluation by the department that originally handled the project.

ural resources. Twenty evaluated operations are in the **financial sector** focusing on the development of local financial systems and the long-term refinancing in particular of loans to small and medium-sized enterprises. The nine **structural and sector adjustment** programmes which underwent final evaluations concerned the support and co-financing of sectoral, political and macro-economic reforms.

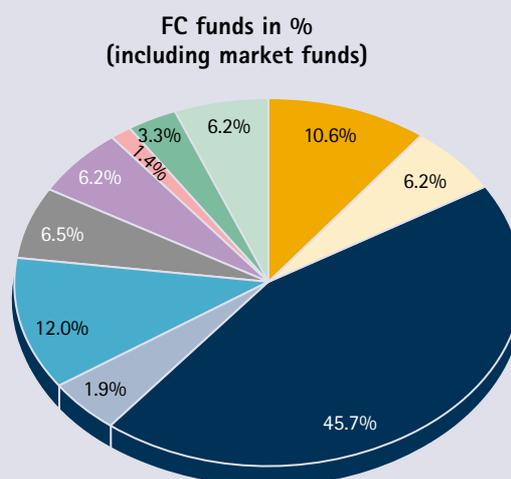
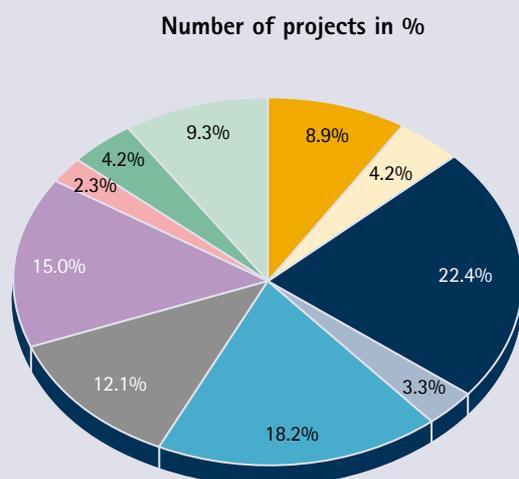
However, FC projects are not only aimed at the financing of investments. Training programmes for the staff of the project-executing agencies and consulting services in the field of operation and management increase our partners' efficiency and ensure the sustainable operation of the facilities financed. Sensitization and hygiene campaigns, in particular in the context of water supply projects, enable people in the partner countries (the "target group") to better understand the connection between hygiene and health and encourage them to protect water resources from contamination and to dispose of sewage and faeces properly. In 79 projects (37%), such complementary personnel measures were part of the FC promotion.

Among the **sectors** promoted, energy is the most important, accounting for 22% of the projects, followed by transport infrastructure, water supply and sanitation, and education and health. In terms of volume, the share of the energy sector even comes to 46% due to several large-scale projects in Asia, followed by a wide margin by transport infrastructure (12% of funds), agriculture and fishery (11%), education and health as well as water supply and sanitation (approx. 6% each).

As in the past, the **main regional focus** was on sub-Saharan Africa and Asia, accounting for 43.5% and 35%, respectively, of all operations. Latin America, North Africa and Europe together accounted for 21.5%. In terms of funds, Asia was clearly in front at 54%, followed with a wide margin by sub-Saharan Africa (20.7%).

The average amount of FC funds committed per project was EUR 15.6 million. Total amounts provided range from EUR 0.5 million for the project "Family planning and AIDS prevention" in Swaziland to EUR 260 million for the project

Chart 1:
Sectoral distribution of operations



- Agriculture and fishery
- Manufacturing and raw materials
- Energy
- Communications
- Transport
- Health care and education
- Water supply, sanitation and waste disposal
- Environmental protection
- Sector and structural adjustment programmes
- Financial sector

"Neyveli II open-pit lignite mining and power station" in India. The **total cost** of all projects promoted was EUR 11 billion, of which only 27% was financed from FC funds.¹ The greatest portion of the investment costs was raised by our partners, mostly from their own funds. Thus, Financial Cooperation complements the partners' own efforts and has a significant leverage effect. Even in projects financed with grants the partner countries' contribution was still 54% on average. Thus, even the poorest countries make considerable own financial efforts to support the projects. The majority of contracts for **supplies and services** financed from FC funds were awarded upon international competitive bidding. Despite the sometimes stiff international competition, 73% of supplies and services were provided by German companies or consortia with German participation.

Almost 30% of the projects were supported in cooperation with other development institutions. At the multilateral level KfW worked together especially with the World Bank and the EU. At the bilateral level the cooperation with the French AfD is of particular and growing importance (see box).

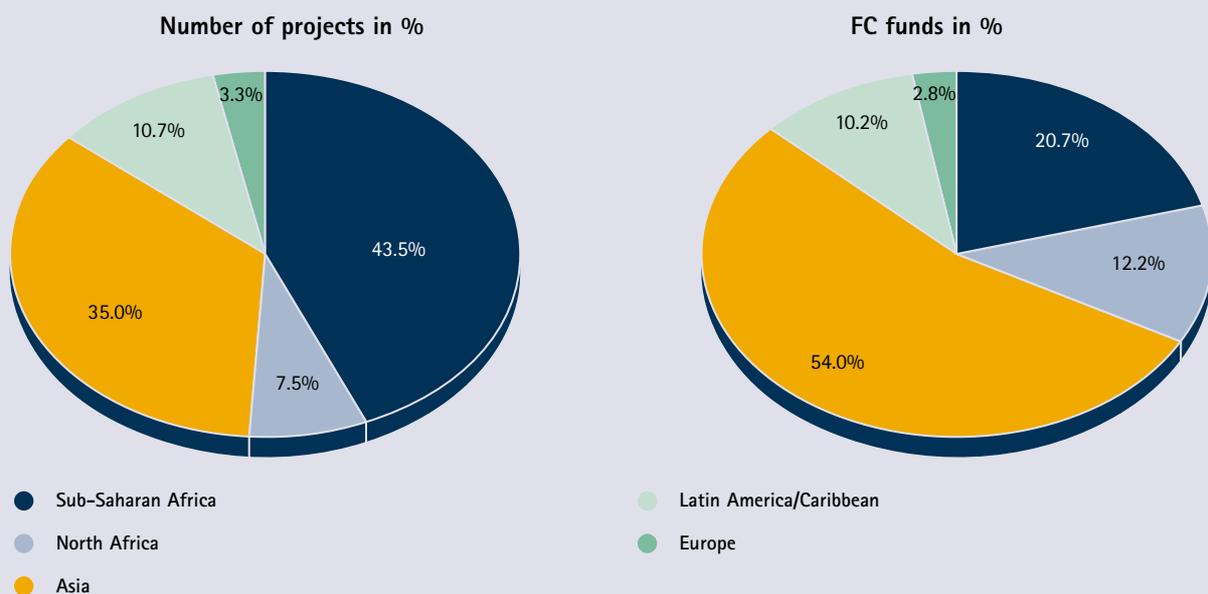


Chad – Informing children about the importance of clean water.

THE OVERALL RESULT

Altogether 66% of all operations that underwent final evaluations in 1998 and 1999 were successful in terms of their development impact. Measured by the amount of funds utilized, this figure is 76%. Thus, the share of successful projects is below the long-term average of 71%. In terms of funds utilized, however, the result is better than the corresponding average of 72%. The differing results are mainly due to the specific sectoral composition of the evaluated operations, the wide range of years in which the operations were appraised, and the influence of individual large-scale projects. Thus, the combined evaluation of railway proj-

Chart 2:
Regional distribution of operations



¹ These figures do not include financial sector operations and structural adjustment programmes.

KfW AND AfD STRENGTHEN THEIR COOPERATION

There is a long tradition of cooperation between KfW and AfD. The two institutions were working together as early as 1962 on a co-financed project in Burkina Faso. In January 1998 they took an important step to extend their cooperation by signing a cooperation agreement. The aim of the agreement is to make the cooperation more systematic and make bilateral developmental cooperation more evident to the public in Europe. The partnership between KfW and AfD is also motivated by their common interest in working more closely with the European Commission's development activities. Both KfW and AfD have signed cooperation agreements with the Directorate General Development of the European Commission and are endeavouring to improve coordination with the EU in co-financed projects. Under their cooperation arrangements KfW and AfD have been regularly exchanging personnel since 1994, thus promoting mutual understanding and facilitating cooperation on the operational level. Cooperation in the partner countries ranges from the exchange of information on co-financed projects to the coordination of country and sector strategies. The main regional focus of cooperation at present is North, West and Central Africa. In the past ten years KfW and AfD have co-financed a total of twelve major projects in water supply, energy and financial sector development, mainly in West Africa and the Maghreb, to which they allocated the sum of around EUR 511 million. Among them is the cross-border energy project "Transmission Line Nangbeto (Togo) - Bohicon (Benin)", which is included in the sample of projects on which this report is based. KfW and AfD have already given each other mandates to implement individual projects, e.g. the project "Construction of Primary Schools" in Mali (AfD mandated by KfW) and the project "Road Mai - Mahiu - Narok" in Kenya (KfW mandated by AfD). In these cases both institutions agreed on common implementation agreements according to European standards.

There have also been joint activities in evaluation. In 1998, for example, two French and two German experts performed a joint ex-post evaluation of the National Agricultural Development Bank of Mali, BNDA, which is promoted by KfW as well as AfD. Other joint evaluations are to follow.

ects, which were classified as altogether not successful in terms of development impact, has adversely affected the result in the period under review. The better success rate in

terms of funds utilized is due to the fact that for the evaluated operations a higher amount of funds was provided for the projects judged successful in terms of development impact.

OVERALL DEVELOPMENT RESULT

Performance evaluation	Rating	Number of operations		FC volume in EUR million	
		absolute	in %	absolute	in %
Very good and good	1	22	10.3	270	8.1
Satisfactory	2	53	24.8	629	18.8
Just adequate	3	67	31.3	1,638	49.1
Inadequate, but still some impact	4	55	25.7	617	18.5
Insufficient	5	15	7.0	160	4.8
Complete failure	6	2	0.9	23	0.7
Total 1-3		142	66.4	2,537	76.0
Total 4-6		72	33.6	800	24.0

LONG-TERM COMPARISON OF SUCCESS RATES

	By number		By volume		
	total	successful in %	total EUR million	successful EUR million	in %
6 th Report: 1998/1999	214	66.4	3,336	2,536	76.0
5 th Report: 1996/1997	237	75.0	3,786	2,734	72.0
4 th Report: 1994/1995	177	67.0	2,179	1,459	67.0
3 rd Report: 1992/1993	153	71.0	1,565	1,118	71.0
2 nd Report: 1990/1991	112	76.0	1,549	1,043	67.0
1 st Report: 1988/1989	110	75.0	1,148	902	79.0
Total	1,003	71.0	13,563	9,792	72.0

As in the previous reports on the results of FC, the breakdown of the overall result into 6 performance categories shows that the share of both category 1 "showpiece projects" and category 5 and 6 failures is low, even though the 22 projects rated as category 1 represent a very satisfactory number of projects to which a very good to good developmental effectiveness could be attributed. The majority of successful projects have more or less pronounced deficits in certain areas. However, the positive developmental impacts prevail (categories 2 and 3).

On the other hand, a project rated as unsuccessful must not be regarded as a white elephant. Most of the projects rated negatively still have significant developmental impacts, fulfil the project purposes and are often considered successful by the partners. In such cases, however, high sustainability risks, serious deficiencies in individual areas or a clear failure to meet developmental or sectoral targets, e.g. insufficient cost recovery by tariff revenues in water supply projects, lead to an assignment to the category of inadequate developmental impact (category 4).

In a comparison by sector, energy received a good rating (83% of successful projects), as well as education and health (81%) and the financial sector (70%). In terms of funds employed, the first two sectors even had a success rate of more than 90%. As in the previous Report on the Results of FC, the success rate of projects in the field of water and sanitation was below average at 59%, and in terms of funds utilized even below 50%. These figures reflect the often difficult institutional conditions in the sector. The success rate

of the transport sector is surprisingly low (only 46%), which is mainly due to the fact that all 13 evaluated railway projects had to be classified as altogether not successful. In most cases the negative rating was attributable to institutional problems which resulted in low profitability, inadequate maintenance of the equipment causing disruptions and unsatisfactory traffic volumes. In the field of agriculture and fishery the striking discrepancy of 34% in the success rates by number of projects and by funds utilised is due mainly to one successful large-scale irrigation project in Peru. At a success rate of only 33%, manufacturing and mineral resources trails the list, although this sector showed an extraordinarily high rate of success (72%) in the last Report on the results of FC. Already then, we pointed out that this was attributable to individual successful large-scale projects characterized by



India – Thermal power plant Ramagundam.



Peru/Jequetepeque – Construction of an irrigation channel.

a market-oriented autonomous management and private-sector structures. However, experience in the past has shown that industrial projects run by traditional public enterprises are little successful and are in effect no longer promoted today.

SHARES OF SUCCESSFUL OPERATIONS BY SECTOR

	Number of operations		in %
	total	success	
Agriculture and fishery	19	10	52.6
Manufacturing and mineral resources	9	3	33.3
Energy	48	40	83.3
Communications	7	7	100.0
Transport	39	18	46.2
Health care and education	26	21	80.8
Water supply, sanitation and waste disposal	32	19	59.4
Environmental protection	5	3	60.0
Sector and structural adjustment programmes	9	7	77.8
Financial sector	20	14	70.0
Total (all operations)	214	142	66.4

	FC disbursements in EUR million		in %
	total	success	
Agriculture and fishery	354	305	86.2
Manufacturing and mineral resources	208	57	27.4
Energy	1,523	1,392	91.4
Communications	65	65	100.0
Transport	399	191	48.0
Health care and education	216	196	90.2
Water supply, sanitation and waste disposal	206	96	46.7
Environmental protection	47	31	65.9
Sector and structural adjustment programmes	111	77	68.7
Development banks	208	127	61.3
Total (all operations)	3,337	2,537	76.0

SHARES OF SUCCESSFUL OPERATIONS BY REGION

Region	Number			FC volume (in EUR million)		
	total	absolute	in %	total	successful	in %
Sub-Saharan Africa	93	60	64.5	692	426	61.5
North Africa	16	7	43.8	406	202	49.6
Asia	75	54	72.0	1,802	1,522	84.5
Latin America/Caribbean	23	16	69.6	342	307	90.0
Europe	7	5	71.4	94	80	84.3
Total	214	142	66.4	3,336	2,537	76.0

The evaluation by **region** shows largely homogeneous results except for North Africa. Asia achieved the best figure at 72%, followed closely by Europe (although with only four projects) and Latin America. Whereas sub-Saharan Africa still shows an average performance (65%), North Africa compares badly at 44%. This extraordinarily low success rate is mainly the result of railway projects in Egypt as well as unsuccessful agricultural projects in Morocco.

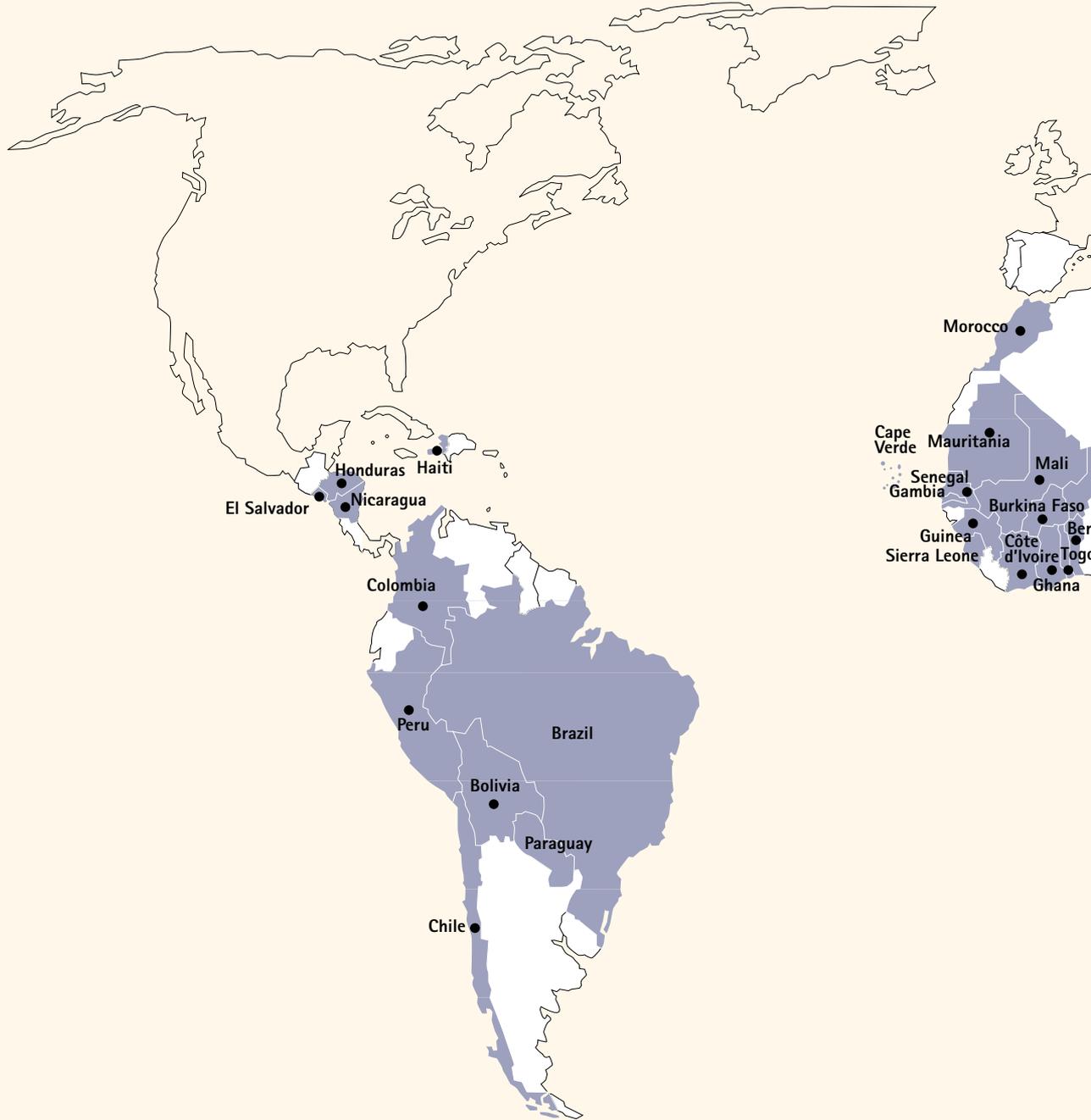


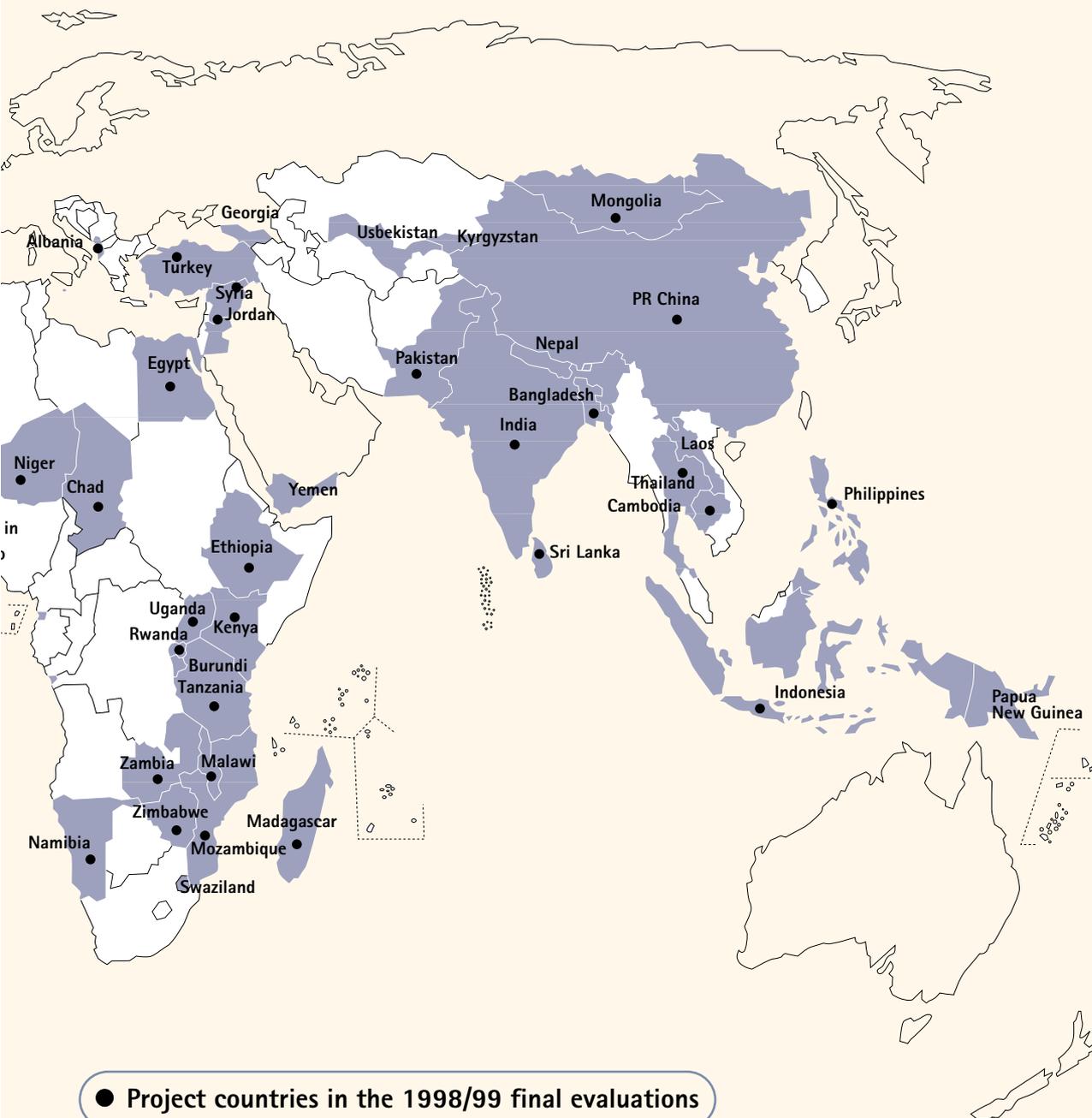
Bangladesh – Coastal protection works for the safety of the population.



Honduras – Low-cost housing.

Partner Countries of German Financial Cooperation





2. WATER AND SANITATION IN SUB-SAHARAN AFRICA

Approaches, Experiences and Perspectives



Many people in Africa get their water from traditional sources.

CLEAN WATER – A PRIORITY OF DEVELOPMENT POLICY

In the industrialized countries, easy access to clean drinking water is a matter of course. In Europe and North America, nearly every household is connected to a central water supply system. Potable water is not used solely for drinking and cooking; large quantities are also used for washing, cleaning and flushing the toilet. The consequence is relatively high water consumption per capita and day (in Germany currently some 130 litres). To dispose of these large volumes of water in a hygienic and environmentally sound way, the majority of households are connected to a central waste water disposal system with waste water treatment or at least have an adequate decentralized disposal facility such as a cesspit or a septic tank.

In contrast, in developing countries the lack of clean drinking water and the unregulated disposal of faeces and waste water remain serious obstacles to development. Many of the diseases that are particularly common in these countries such as amebiasis, diarrhea or worm infections are a result of contact with unsafe water or unregulated disposal of faeces (see box). Worldwide roughly 2.2 million people die from diarrhea alone each year, most of them children in developing countries. The prolific incidence of these diseases also has serious economic consequences – not only for the families that are directly affected but also for the national economies: frail health limits the capacity to work and, in view of lacking social security schemes, directly jeopardizes people's livelihood. The expenses for medical care – if any is available at all – are a heavy burden on the already small household incomes. Finally, the often long distances to water sources require a great deal of time and energy, primarily of women and girls.

Sub-Saharan Africa is especially affected by this. There, 40% of the population, or some 300 million people, still do not have access to sufficient quantities of hygienically safe drinking water. This portion of the population meets its water needs by going to unsafe sources such as lakes, rivers or traditional shallow wells. Frequently this water is polluted and therefore unfit for human consumption. Functioning, hygienically safe waste water and excrement disposal systems are also rare. Even latrines seldom exist or are unhygienic. In many cases the widespread ignorance of the link between water and health leads to unhygienic behaviour. Containers for water transport and storage are not covered or sufficiently cleaned, the area surrounding wells and public standpipes is dirty, or people do not wash their hands after defecation.

Against this background, the water and sanitation sector is a strong focus of German Financial Cooperation worldwide. This also holds true for sub-Saharan Africa: since 1960, 366 projects have been financed in the region with a total amount of approximately EUR 1.7 billion. This corresponds to 20% of all German FC projects financed in the region, or 60% of all water and sanitation projects promoted with FC funds worldwide. Between 1995 and 2000 the share of commitments to the water and sanitation sector in the region was even 25%.

We therefore found it advisable to examine the project approaches and experiences in the area of water and sanitation in sub-Saharan Africa more closely and to ask ourselves what we have achieved with the projects and how we will apply the experience we gained. To this end we have cross-evaluated all 22 water and sanitation projects that are included in the present overall evaluation for the years 1998 and 1999 and present the results of this evaluation below.

WHICH PROJECTS WERE PROMOTED?

The overall evaluation comprises 22 water and sanitation projects in sub-Saharan Africa with a total allocation of FC funds of EUR 125 million. Most of the 12 project countries are located in the wide belt ranging from West Africa through the Sahel zone to East Africa, with Benin, Gambia, Niger, Sierra Leone and Zambia accounting for a large share of the assessed portfolio with a total of 15 projects. Most of these are among the world's least developed countries (see map). Therefore, the FC funds were provided almost exclu-



Zambia – Rural water supply.

sively as non-repayable grants. The total costs of the projects amounted to EUR 149 million, to which our partners contributed EUR 24 million in own funds. This relatively small figure in comparison with the total costs reflects the difficult economic situation in the region.

In one way or another, all 12 countries are confronted with the problems described above: insufficient water supply and waste water disposal. The share of the population with access to adequate drinking water in Sierra Leone, Chad and Ethiopia is merely around 25%. Only in Zambia does the large majority of the population (between 76% and 90%) have access to public water supply. Against this background the projects focused on the provision of reliable and safe drinking water. In only one project ("Waste Water Disposal

WATER-RELATED DISEASES

A lack of clean drinking water can cause two kinds of disease:

- (1) Direct consumption of contaminated water can cause diseases like cholera, dysentery and typhoid fever through the faecal-oral system. These diseases frequently cause epidemics, especially in developing countries. But diseases that seemingly spread less dramatically, like diarrhoea, hepatitis A and the Guinea worm disease (dracunculiasis) belong to this kind of water-related diseases.
- (2) Insufficient supplies of clean water mean that the people cannot keep their hands, bodies and domestic environment clean properly. Under these conditions skin and eye inflammation as well as the above faecal-oral diseases can easily spread.

Suitable sanitary facilities block the routes along which many faecal-oral diseases spread by preventing water and soil from becoming contaminated. Epidemiological studies suggest that the appropriate disposal of faeces and sewage is at least as efficient in preventing the spread of water-borne diseases as improving the water supply. Worm diseases in particular, from which an estimated 10% of the population of the developing countries suffer, can be avoided by suitable sanitary measures. Often, however, these measures require far-reaching changes to behaviour patterns and involve high costs for households. Proper disposal of children's faeces is extremely important. They are the main victims and at the same time the main source of infection with diarrhoea, which is one of the most serious health problems in developing countries. Although actually not a very dramatic illness, diarrhoea can rapidly prove fatal, especially in tropical regions and to small children, owing to the severe dehydration. In developing countries 15% of all deaths among children under the age of 5 are due to this illness. Improved water supply and sanitation reduce the incidence of this disease by around 30% on average.



Women are almost always responsible for the transport of water.

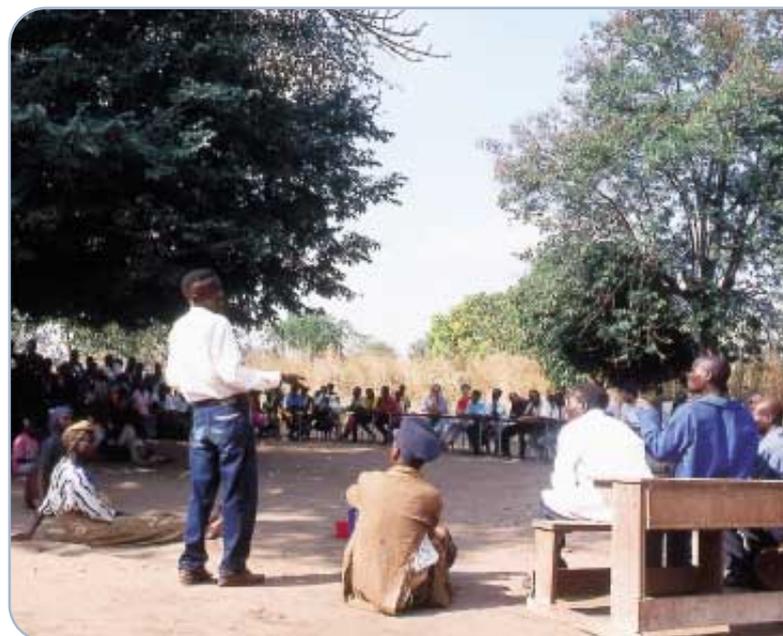
Bujumbura/Burundi”) was support granted to construct a “classic” central waste water disposal system with a treatment facility. However, several water supply projects were supplemented with sanitation components consisting mainly of latrine construction programmes. In three cases – Ethiopia, Cape Verde and Mali – sector programmes were financed in which the supply of equipment was the primary concern in order to overcome temporary bottlenecks.

Under the 10 drinking water programmes in **rural areas**, mainly simple deep or shallow wells were built and equipped with reliable hand pumps to keep operating costs and technical requirements as low as possible. The villagers have to carry the water from the well to their home. This work is almost always performed by women and girls. The site and distance of the wells and standpipes are very important: if they are difficult to access or too distant – in particular compared with the traditional, risky sources of wa-

ter – they are not accepted or the water consumption is insufficient to meet the needs. For this reason, the well sites need to be chosen very carefully for this type of programme if the intended supply of 20–25 l per day and person is actually to be achieved.

Most cities in Africa already have piped water supply systems which are, however, often in a poor condition or lag behind the fast growth of the cities. Most of the 8 projects in **urban water supply** therefore involved modernization or extension measures. Usually the water production and treatment facilities, main lines, storage installations and distribution networks were rehabilitated or expanded. Frequently the users are not supplied via house connections but instead by way of public standpipes because the usually low level of consumption does not justify the installation of house connections and the users could not afford the related costs.

Ignorance of the detrimental health effects of traditional sources of water might jeopardize project success: only if the people are aware that clean water and hygiene help to prevent diseases are they prepared to use sufficient quantities of water at a cost and to change their hygiene behaviour. As a result, half of the projects were accompanied by



Information and motivation campaigns are important complementary measures.



The involvement of women has particular importance for project success.

sensitization and hygiene campaigns. Ordinarily these campaigns provide for a variety of measures such as the preparation and distribution of visual information material, theatrical performances and work with "multipliers" such as teachers, women's associations, etc. Additionally, in some rural projects **training measures** were applied in order to encourage the foundation of "user committees" or "well committees" in the villages, to train pump mechanics and to develop a procurement system for spare parts. These measures are meant to promote the largely self-reliant operation of the systems.

WHAT HAS BEEN ACHIEVED?

The final evaluations on site revealed that 14 of the 22 projects can be considered a success in terms of developmental effectiveness. This corresponds to a **success rate of 64%**, a figure only slightly below the average of all projects and programmes evaluated in 1998/99.

With the FC funds some 2 million people were supplied with drinking water, 1.3 million of whom in poor rural areas. Overall, more than 2,000 drilled or dug wells as well as standpipes were built to cover the people's basic drinking water needs. The average water consumption determined during the final evaluations including the urban systems was approximately 20 l per person and day, ranging from a low 11 l in a project in Benin to as much as 30 l in Zinder, Niger.

By providing drinking water and complementary measures, most of the projects contributed to the decline in health risks for the target population. For example, a clear decrease in diarrheal and skin diseases was noted as a result of the "Rural Water Supply Central Province" in Zambia. Today cholera, which used to be quite common in the country, no longer occurs. However, reliable statistical figures on the health situation are seldom available so that the health effects have to be assessed on the basis of surveys, observations and plausibility considerations. Although in the case of rural water supply in Gambia the child mortality rate was halved on the national level within ten years, in the project region this decline could be confirmed only qualitatively on the basis of sample surveys. As a rule, this also applies to the effects on women. Therefore, the statements made in this respect in the final evaluations are predominantly qualitative. With this qualification positive effects for women and girls were affirmed for nearly all projects. Through better supply and in most cases shorter distances for fetching the water, they save time (according to surveys in some projects several hours each day) that can be spent otherwise: on productive work such as small animal farming or vegetable cultivation, for schoolwork but also for social commitments such as participation in user committees. The active participation of women is frequently an important feature of the implementation concept. Women are already involved in the planning stage to ensure that the sites selected for the wells and standpipes are adapted to people's needs.



Handing out certificates for well mechanics.

Most of the projects contributed directly to **poverty alleviation**. In 16 of the evaluated projects the majority of the target group was poor, and it is this subgroup on which the measures focus. Even in the urban projects installation of standpipes or shared supply via neighbourhood connections such as the “branchements sociaux” in Benin ensure that poor people have access to water. Further, the potential of the rural population in particular to help themselves could be specifically mobilized in 6 projects. The villagers formed user committees from their own ranks which attend to the wells and keep them clean, learn to carry out simple repair work, inform the competent authorities of larger problems and collect and manage the user fees. In order to promote the participation of women, which is not always easy in the socio-cultural context of these countries, a “women’s quota” was introduced as far as possible. As a result, at least three of the seven members of the user committee had to be female in the “Rural Water Supply Central Province Zambia”. In individual projects, such as “Rural Water Supply in the Gutu District Zimbabwe”, the villagers were requested to contribute work and funds of their own already during the implementation phase. This was meant to enhance the people’s sense of ownership for “their” water supply and thus also its sustainability.

In general, the **developmental performance record** of the projects we supported in the water and sanitation sector in sub-Saharan Africa is **positive**. However, KfW’s final evaluations also reveal problems and risks for the developmental effectiveness of the projects, as shown by looking at the breakdown of the performance ratings of the 22 projects:

None of the projects were rated as very good or good. Only those involving rural water supply in Zambia and Zimbabwe had a satisfactory effect. The majority of the 14 successful projects achieved only satisfactory effectiveness, thus displaying significant deficiencies in some areas. This applies to three urban water supply projects each in both Benin and in Chad, the rural water supply in Niger as well as a sector-related programme in Ethiopia. In contrast, of the 8 projects that were unsuccessful, 7 still had substantial positive effects that could not, however, compensate for the identified deficiencies. These include the projects in urban water supply in Niger, rural water supply in Sierra Leone and the sector-related programmes in Mali and Cape Verde. One project (waste water disposal in Bujumbura, Burundi) was a complete failure.



Digging a shallow well.

EVALUATION OF PROJECT SUCCESS

Developmental effectiveness	Performance rating	Number	Share
Very good and good	1	–	0%
Satisfactory	2	2	9%
Altogether adequate	3	12	55%
Altogether inadequate	4	7	32%
Clearly insufficient	5	–	0%
Complete failure	6	1	4%

WHERE ARE THE PROBLEMS AND SUSTAINABILITY RISKS?

No statistically significant conclusions can be drawn and generalized by reviewing 22 individual cases. But the project deficiencies, problems and sustainability risks determined in these final evaluations confirm experiences gained in numerous similar projects in the region and elsewhere; therefore, they can surely be considered representative.

The problematic factors and risks to the developmental effectiveness of the projects that are mentioned in the reports can be roughly broken down into factors inherent to the project, factors related to the institutional and sector-policy conditions and, finally, exogenous political or economic factors that cannot be influenced.



Latrines in the vicinity of a village school.

The question always asked first is whether sub-optimal effectiveness is rooted in the project itself. Such **immanent project weaknesses** can in fact be identified in the evaluated projects. Thus, in some cases the planning was based on water consumption and user figures that were actually not achieved (e.g. because people still revert to traditional water sources to a certain degree). As a result, on average the **capacity utilization of the facilities** fell short of expectations, adversely affecting the financial performance of several projects.

Also, in several cases the hygiene behaviour could be only partially changed in connection with the **hygiene and sensitization campaigns** accompanying the projects. Although for the most part success was achieved on the personal level, public hygiene remained almost always problematic. While private water containers and latrines are generally clean, the area surrounding the wells and standpipes is often not kept clean, and public sanitary facilities such as latrines in schools and in public places are hardly maintained. Therefore, the **sanitary components** are frequently successful only in part. Obviously two points underestimated by us sometimes are superimposed here: for one, changes in awareness and behaviour are always a long-term process. Consequently, corresponding campaigns must also be planned on a long-term basis and, after our support has ended, should be continued by local means, if possible. For another, it is apparently difficult to create a sense of personal responsibility for something that is part of the public sector. A citation from a final evaluation report (Gambia): "In some cases it was also observed that among the villagers

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Even simple spring protections need regular maintenance.

awareness of the fact that the well belongs to the village and not to the government (sense of ownership) does not exist. Hence there is also no feeling of responsibility for maintaining the area surrounding the well and for repairing the facilities." Finally, conflicts within the target group, for instance disputes over use of a supply facility as a cattle watering place or for household needs (Niger), can also play a role. In order to avoid such socio-cultural problems as much as possible, detailed analyses of the target groups and their involvement in the project planning are indispensable.

Another difficulty that often arises in rural projects is the establishment and management of **maintenance funds** by the user committees. For some projects and programmes, it was noted during the final evaluation that user fees were either not collected at all or to an insufficient degree. In various cases the management of the collected funds posed problems for the committees due to lack of access to deposit or savings accounts and, hence, the problem of maintaining the value of the funds. A citation taken from the final evaluation report "Rural Water Supply/Niger": "The water accounts that were inspected during the final evaluation did not contain the specified amounts ... The management of such amounts of money – which are high for the local situation – does not match the possibilities and practices of the population."

As a rule, however, these inherent project problems were not the main reason a project had to be rated unsuccessful although they represent substantial deficiencies and reduce the developmental effectiveness of the projects.

In the 8 projects that were given a negative rating, either the institutional and sectoral conditions or exogenous factors played a decisive role in their failure.

For instance, the waste water disposal system of Bujumbura, Burundi, and the rural water supply and sanitation of Bo-Pujehun, Sierra Leone, failed as a result of **political developments**. In the case of Sierra Leone, the wells constructed under the project went into operation prior to the outbreak of the civil war which lasted several years. Since the project area was controlled by rebels in 1998, the project was classified as a failure without any current information on the condition of the pumps on the basis of the assumption that the pumps could probably not be maintained to the necessary extent due to the ongoing war. When the project area was visited in early 2000, it turned out that some 90% of the pumps were still functioning, and some of them in spite of the fact that they had been shot at several times! The reasons behind this were, on the one hand, the high technical quality of the pumps and boreholes but also, on the other hand, an informal maintenance system that had developed



Well equipped with a hand pump – frequently user committees are established to operate a well.

from the complementary measure of the project. Mechanics were able to carry out an extraordinary volume of repair work with the few spare parts and tool kits remaining. The current need for reinvestment is estimated at less than 2% of the original investment. From today's perspective, the project would be assigned performance rating 3.

To a large extent the sustainability risks and problems mentioned in the final evaluations resulted from the prevailing **sectoral and institutional conditions**: In all 22 projects the cooperation during implementation involved a project-executing agency from the public sector, i.e. a public agency or utility. In urban water supply, operation and maintenance as well is mostly carried out by public-sector companies. Frequently these institutions and their management are subject to far-reaching political influence. Therefore they are often overstaffed, they have a tariff system that was established without taking economic principles into account, public-sector

customers are not forced to pay their outstanding debts and management positions are not always filled according to personal qualification and performance. Excessive centralization results in a lack of flexibility and customer orientation. Low salaries and insufficient working capital lead to the frustration of the operative staff and to insufficient maintenance of the facilities. This causes the supply services to worsen, whereby the customers' willingness to pay declines and their resistance against necessary fee increases rises – the beginning of a vicious circle. For 5 of the 8 unsuccessful projects, this is the primary reason for the negative rating. But even half of the successful projects display sustainability risks. A citation taken from the final evaluation report Maradi, Niger: "The project-executing agency's capacity to act is severely restricted by the constant influence of the national government on corporate-policy decisions, in particular with regard to the national tariff policy and the filling of managerial positions with civil servants."

WASTE WATER RECYCLING WINDHOEK

The town of Windhoek lies in the central highlands of Namibia and during the 1990s it grew rapidly; now its population numbers around 220,000. The population growth and the town's position in a region with low rainfall (370 mm p.a.), strong insolation and corresponding evaporation rates are a major challenge for the town's drinking water supplies. The water comes from a state-run storage system, a few wells and the Goreangab reservoir.

To cope with the shortage of water the first waste water recycling plant in the world was put into operation in Windhoek already in 1968. It treats waste water and turns it into drinking water.

With the treated waste water Windhoek had on average around 20 million m³ of water a year. In droughts, however, the level fell markedly below this and supplies were unreliable. Despite the introduction of various measures to economize on water (especially a tariff policy) it was evident that by 2000 at the latest the available capacities would no longer suffice to meet the town's needs.

So it was decided to expand waste water recycling with the support of German FC. The project, which is co-financed by the European Investment Bank, was appraised in 1996, and it provided for a new waste water processing plant with a capacity of 21,000 m³ per day. In addition, the pipeline to the central reservoir had to be renewed and another pumping station was required. The new plant should ensure drinking water supplies to Windhoek until the year 2010 and also reduce as much as possible the pressure on the scarce water resources. The capacity of the new plant is sufficient to treat about 40% of the water consumed in Windhoek and feed it back into the supply system.

The plant was constructed between 1999 and 2001. With the agreement of KfW and the EIB the municipal administration of Windhoek, which is responsible for water supplies, decided to entrust the management of the new plant to a private operator. An Australian consultant was commissioned to draw up the tender documents for the management contract; his work was also financed with FC funds. Based on the results of the tender a German-French-South African consortium was selected. If the operating consortium proves successful it is also to be entrusted later with the operation of two sewage treatment plants.

German FC is making manifold efforts to have a positive influence on the general conditions and to break up the vicious circle – in the sector dialogue together with other international DC institutions, through covenants (conditionality) and via complementary measures to strengthen the project-executing agencies (often in cooperation with TC, as is the case in Niger). Where these efforts have failed in the past, totally new approaches also have to be considered.

HOW CAN WE APPLY THE LESSONS LEARNED?

One interesting result of the evaluation was that 8 of the 10 rural water supply projects in which local well committees and user groups were responsible for the operation were rated successful with a high likelihood of sustainability. This is an indication that decentralized forms of operation that, with public services being virtually non-existent on site, rely on private self-organization could be advantageous.

As regards the water supply project in Abéché (Chad) the facilities were in an acceptable condition at the time of the final evaluation despite the weaknesses of its government-owned project-executing agency. This could be traced back in part to the fact that the bulk of the water is sold via standpipes operated by private lessees on their own account.

These two examples already suggest how KfW uses the lessons learned, above all with respect to public-sector operators, as a basis for developing new approaches: especially in water and sanitation projects in sub-Saharan Africa, the focus is more and more on the involvement of private individuals or the private sector. The scope of the involvement can vary considerably – from the stated participation of the users in the operation of rural systems through outsourcing of some operative functions to the award of long-term concessions to private companies. These kinds of project approaches are designated by the terms **private sector participation** (PSP) or **public-private partnership** (PPP, see box). They are linked to the expectation that the operation will be “depoliticized” and rendered more customer-oriented and efficient. Another reason behind the more complex PPP approaches is that a substantial increase in the coverage of appropriate water supply and waste water facilities in developing countries would require billions in investments, which cannot be financed through the stagnating public funds

alone. The goal is therefore to use the financing capacity of the private sector.

The PPP approach is not new to developing countries. In French-speaking Africa in particular many years of experience have been gathered in connection with the private operation of urban water supply systems under **concession agreements**. In most cases competent operators were selected by the responsible government agencies by means of a – for the most part international – public tender for a concession limited to 10 to 20 years (chiefly large French compa-



Water storage tank of a piped supply system.

nies). The operator, who bears the brunt of the financial risk, is given targets as to the service level and the tariffs (as in Côte d'Ivoire, for example). In other countries, although the ownership of the facilities remains with a public authority, the entire responsibility for operation and maintenance was awarded to international private companies under a **management agreement** (e.g. in Senegal and the Central African Republic). This agreement usually provides for remuneration of the private operator based on certain service targets such as a minimum collection rate or decreased technical losses. In those countries in which the government wants to retain public supply and disposal systems out of policy considerations there are possibilities of transferring individual tasks to the private sector, thereby achieving efficiency gains. In the Kenyan town of Malindi, for example, a German consulting firm was involved in the operation of an FC project. With the start of its work the water losses were substantially reduced and the collection system considerably improved. A further example of private operation of an individual component

under an FC project is the Windhoek waste water reclamation plant (see box).

Of course, involving the private sector is no guarantee of success. It is equally important to establish the necessary conditions, to make the contractual regulations "watertight" and to have a neutral and competent regulatory authority monitor the observance of these regulations by the contracting parties. Several lessons can be learned from these experiences in French-speaking Africa for future approaches.

Thus, especially in poor developing countries PPP approaches involve a conflict between the intention of the private operator to generate profits and the developmental goal to supply the poorer population with water, as the example of privately operated water supply in Côte d'Ivoire illustrates. There the privately owned SODECI and the French company Saur Afrique, which holds a majority stake in SODECI, have

been responsible since 1960 for the operation of the piped water supply systems, including the systems in more than 50 small towns that were financed under the FC programme "Water Supply in Provincial Towns VI". In principle, the operational results in the programme towns are positive to date. SODECI works efficiently and, in contrast to many public operators, attains a very high collection rate; demand for house or yard connections is higher than expected. However, the standpipe components planned under the programme have turned out to be problematic. SODECI is requesting a fee of EUR 511 to lease a standpipe, which scares off many prospective lessees. As a result, only six out of 35 planned standpipes were put into operation thus far. Under developmental considerations, however, this project component is very significant because it is supposed to supply the poorer strata of the population with safe drinking water. Talks are currently being held with SODECI to solve this problem.

PUBLIC-PRIVATE PARTNERSHIPS IN FINANCIAL COOPERATION

Public-Private Partnerships (PPPs) are growing in importance in FC. The decisive factor in assessing whether projects with a PPP approach are eligible for promotion under development policy is whether sufficient incentives and an appropriate framework are created to ensure that the private operators will provide better services than the public (state or municipal) authorities. Hence both the risks and the prospects of achieving profits must be sufficiently taken into account in the project concept and the contract structure. KfW therefore sees its role in PPP projects not only in financing investment but also, and above all, in supporting an appropriate balance between public and private interests. In addition, FC uses investment projects with state implementing agencies to modify structures that are an obstacle to development, like tariffs that do not cover costs. This improves the conditions for private operators to become involved. PPP is possible in various forms and degrees of intensity. Frequently reforms in the public sector lead to solutions involving private companies. Utilities that are embedded in ministries are converted into companies with a separate legal identity and commercial management (commercialisation). Parallel to this some of the activities are often handed over to private enterprises (outsourcing). The operation of the waste water recycling plant in Windhoek (see box on page 23) is one example of this. But frequently the private partner has a larger role. He may be given responsibility for the entire enterprise for a limited period of time under a management or leasing contract. The remuneration depends on performance-related indicators. Under a leasing contract the private partner assumes the entire commercial risk of the enterprise in addition to the responsibility for its operation. While the maintenance costs are borne by the private operator under a management or leasing contract, the public authorities remain responsible for the investment needed, e.g. expanding the network. They can be supported in this by FC. In a more far-reaching form of PPP the private operator can also take shares in the capital of the former pure state enterprise, or he may be given a long-term concession. This means that he must also contribute to financing the required investments. Again FC funds can be made available for the remainder of the investment costs which are to be borne by the public authorities.

In Cameroon an attempt is being made to take these conflicting objectives into account during the ongoing privatization process. In the concession agreement the SNEC, which is to be privatized, will initially only be assigned responsibility for the water supply systems in the country's six largest cities since they best meet the requirements for a profitable operation. In addition to Douala and Yaoundé, two cities with over a million inhabitants, the FC project town Bafoussam is also part of this group. In the 92 other urban water supply systems that are currently not operating profitably the SNEC is to be responsible for the daily operation and maintenance but the investments will remain the responsibility of the state. A precondition for success of this two-pronged approach is, however, that the financial situation of the smaller systems can be improved, too.

The resolution of the conflict between profitability requirements of private operators and social responsiveness to the interests of the poor population is of great importance for the success of the privatization process in development-policy terms. In the often ideological discussion about the social compatibility of privatizations it should be kept in mind, however, that in numerous countries it is precisely the poor who are frequently suffering from insufficient water supply and sanitation services, provided by inefficient and sometimes clientelistic or even corrupt public operators.



Private yard connection.



Large water intake at a spring with a simple chlorination facility.

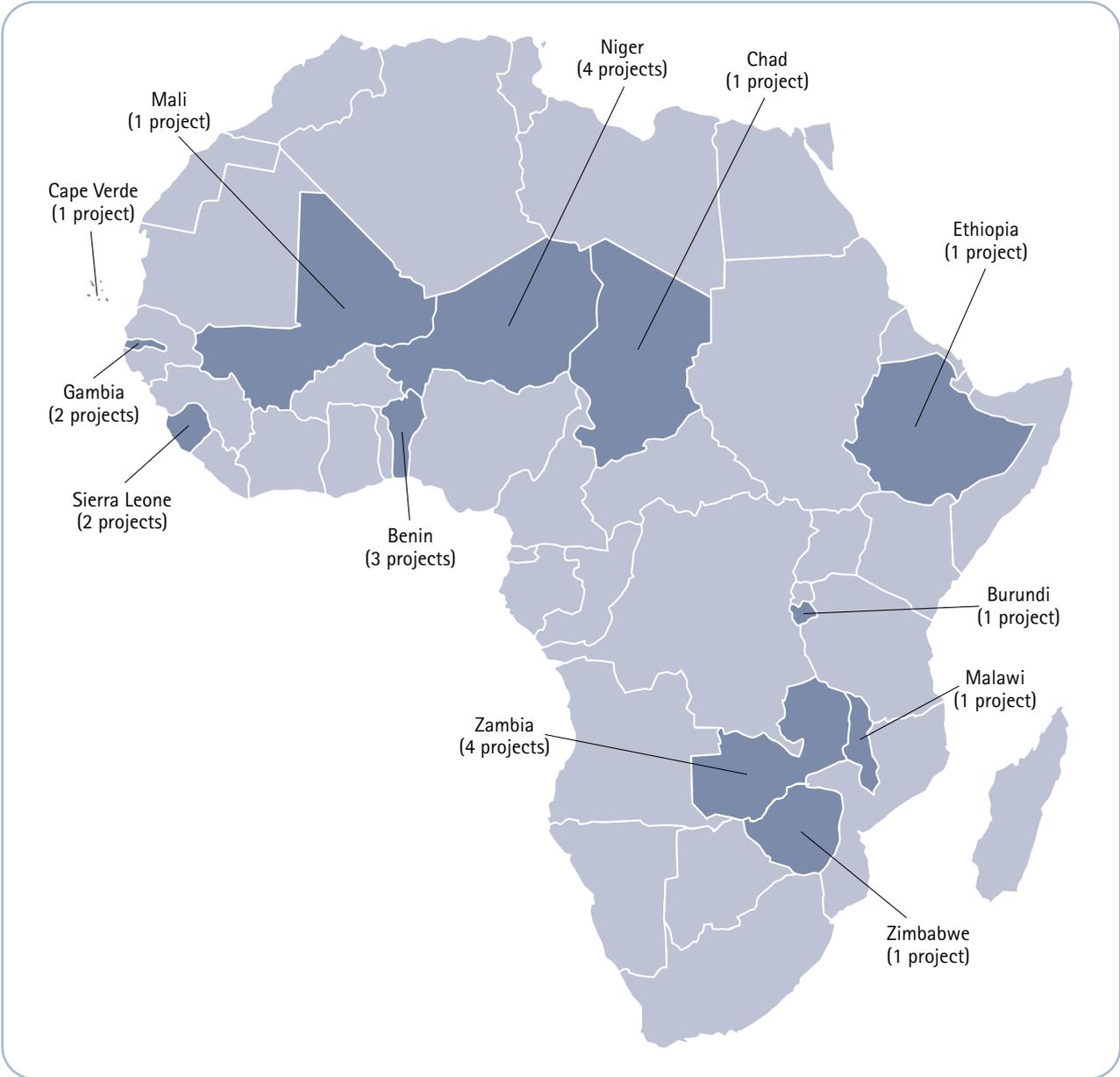
The relevance of proper and clear **contractual arrangements** and particularly their observance by the contracting parties is emphasized by the example of the Central African Republic. The operation of the country's urban water supply systems was transferred in 1991 to the private company SODECA, in which Saur Afrique also holds the majority. After government agencies accumulated more and more debts to SODECA, Saur Afrique withdrew from the company, thereby dangerously weakening the performance capability of SODECA. The sustained operation of the water supply facilities, primarily in small towns including the FC project town of Bossoum, is now at risk.

CONCLUSION

Water and sanitation is a sector affected by high sustainability risks that must be accepted in view of the importance of safe water supply and hygienic disposal of sewage or faeces to the living conditions of the people. As the examples illustrate, encouraging private responsibility and cooperating with the private sector within the context of PPP approaches can in principle contribute to increasing the effectiveness of Financial Cooperation and thereby to ensuring broad-based supply.

Especially in the poor countries in sub-Saharan Africa with their insufficient institutional conditions these approaches are a complex undertaking with no guarantee of success.

Overview: Water and Sanitation in Sub-Saharan Africa



Approaches, Experiences and Perspectives

As the initial experiences show, the general conditions have to be propitious and proper incentives need to be provided for PPP approaches as well. They require the political commitment of the governments in the partner countries to transfer responsibilities to the private sector and to fulfil the obligations resulting from the agreements that have been concluded. At the same time it must be ensured that the private partners do in fact perform the agreed services. Apart from the proper and competent monitoring of the service

performance, the design of the agreements plays a crucial role. It has to regulate the rights and obligations of both sides appropriately and create incentives for the private enterprises to supply all population strata efficiently and adequately. The risks involved are borne by both the private operators and the local authorities. Therefore, PPP approaches are not a "fast sell" but instead necessitate intensive support in Development Cooperation – through funding and professional advice.



3. PROJECT EXAMPLES

PAKISTAN
PR OF CHINA
MOZAMBIQUE
EGYPT
BOLIVIA
CHILE



Performance Rating Categories

Categories 1 to 3: Successful

- Category 1: Very good or good developmental effectiveness
- Category 2: Satisfactory developmental effectiveness
- Category 3: Altogether sufficient developmental effectiveness

Categories 4 to 6: Not successful

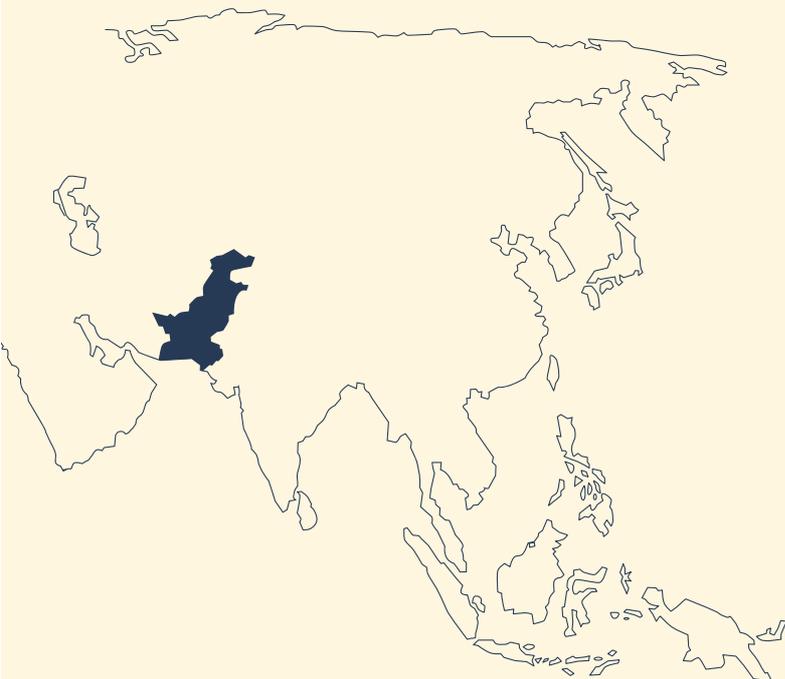
- Category 4: Altogether insufficient developmental effectiveness
- Category 5: Clearly insufficient developmental effectiveness
- Category 6: Total failure



PAKISTAN POPULATION PROGRAMME (SOCIAL MARKETING OF CONTRACEPTIVES)

PAKISTAN	
Population:	138 million
Area:	796,100 km ²
Population growth:	2.2% p.a.
Per-capita income:	US\$ 450
Literacy rate:	45%
Life expectancy:	62 years

Pakistan has a population of about 138 million and in the early 1990s it was still growing at 3% a year. The high rate of population growth is not only making it difficult to achieve any noticeable increase in per-capita income – Pakistan is one of the low-income countries – it is also an obstacle to better food supplies, housing, health and education, where Pakistan is one of the most backward countries in some areas.



Despite the evident population problem Pakistan, like many Islamic countries, had reservations regarding family planning for many years. However, this has now changed, and for some years family planning has had high priority. A separate ministry, the Ministry of Population Welfare, (MPW) has been created to handle population policy and family planning, and in the towns the Government is, among other things, promoting the work of non-governmental organizations (NGOs) and doctors as well as social marketing measures.

The objective of this social marketing concept is to improve the supply of contraceptives by selling them through existing private channels like retailers or doctors' practices. This stems from the experience that when contraceptives are given free by public family planning clinics very often only a small percentage of them are actually used. The ultimate aim of the social marketing of contraceptives is to change people's behaviour and ensure that they do use reliable contraceptives regularly. Hence public information campaigns, including advertising in the media, are an important part of the concept. It should also be stressed that with this approach the intensive information campaigns and advisory services and the variety of contraceptive methods offered enable couples to make a conscious decision on the method they prefer. The FC programme is also based on the social marketing approach. The target group in this case was the urban population of Pakistan, especially the lower and middle income groups. The contraceptives are marketed through retailers and private medical practitioners in the many family planning practices known as the Green Star Clinics. These are generally located in the urban fringe areas where most of the population are poor. The objective of the programme was to improve the supply of contraceptives for the urban population, to be measured by the quantities sold and the "contraceptive years per couple" thus created, that is, the number of years during which a couple can avoid a pregnancy. In this way the programme was to help reduce the birth rate.



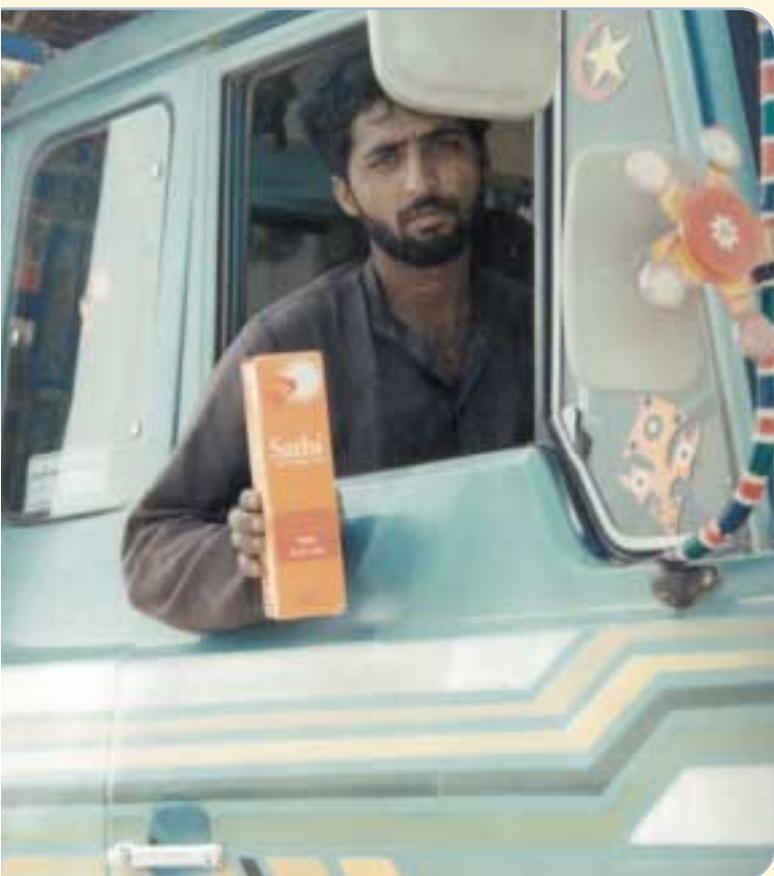
For FC with Pakistan the programme, which was coordinated with other donors active in family planning, was new territory. The overall responsibility for the programme lay with the MPW, which held a public tender and selected a local NGO, Social Marketing Pakistan Ltd. (SMP), to act as implementing organization. In executing the programme and in its advertising and motivation campaigns SMP was supported by the American NGO Population Service International (PSI), which specializes in social marketing. The cooperation between MPW, SMP and PSI worked very well. Condoms and coils were marketed. The contraceptives were purchased from various manufacturers after an international tender and first stored in SMP's central warehouse in Karachi. From there the condoms were sold through a wholesaler and more than 30,000 retailers in more than 400 towns throughout Pakistan. The coils were all inserted by female doctors who were given basic and advanced training in their use by SMP in the Green Star network. This method of executing the programme worked very well, and altogether about 355 million condoms and 60,000 coils have been sold since 1995.

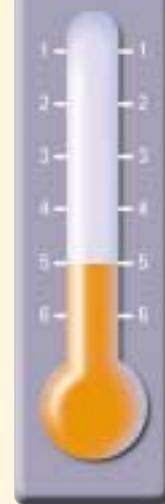
SMP sold the contraceptives at prices below market level, and this encouraged the traders and medical practitioners, who largely kept to the price recommendations given, to make particular efforts to sell them. The receipts from the sales covered about 20% of the purchase costs of the condoms and 3% for the coils. The end-user paid the equivalent of EUR 0.01 for a condom and EUR 5.62 for a coil, including the cost of inserting it. So the annual costs of the contraceptives are less than 1% of disposable income per household, even for the poorer sections of society. The FC funds of EUR 15.3 million were used to purchase the contraceptives, to pay the PSI consultant, cover the SMP implementation costs and the advertising and motivation campaigns. The receipts from the sales to the private traders were retained by SMP and used to co-finance the implementation costs, although they were not sufficient to cover these entirely. SMP is endeavouring to achieve full cover of the implementation costs by gradually raising the selling prices in acceptable stages. At the same time the organization is endeavouring to ensure that the support of external donors is continued.

The final evaluation showed that the objectives of the programme were fully achieved. Above all, noticeably more condoms were sold than had been expected when the programme was initially appraised. Altogether the initial projection of 3.5 million contraceptive years was exceeded, with the actual figure arriving at 3.7 million. The rate of population growth has fallen and is now 2.2% p.a., that is a fall of 0.8 percentage points since the programme appraisal. The programme has made an important contribution to this very positive development, for while it was running on average 20% of all the contraceptives available in Pakistan were purchased under the programme.

The high share of condoms in the contraceptives financed has also made a major contribution to reducing the spread of HIV, although the marketing strategy was not explicitly designed for this out of socio-cultural considerations. In addition, the living conditions of women have greatly improved through easier access to modern low-cost family planning methods and the consequent reduction in

the health risk from high birth rates. The support given to the Green Star network has clearly increased the quality and availability of private family planning services. The risk to set against these positive aspects is that the financial independence of SMP is not yet assured and the organization is thus still dependent on the support of external donors. A study initiated by BMZ on these social marketing projects included the FC programme in Pakistan and called it exemplary. It was one of the first programmes of this kind financed under FC, and so it was of great importance for the development of the concept of social marketing. In the final evaluation the developmental effectiveness of the programme was rated satisfactory (performance rating 2).





THE PEOPLE'S REPUBLIC OF CHINA DONGFANGHONG CHIPBOARD PLANT

The People's Republic of China began to modernize its industrial sector in the 1980s. This was a response to the recognition that the country had not succeeded in building up an industrial sector that was internationally competitive with the methods of centralized economic planning. The Chinese government attempted to create incentives for modernization efforts by freeing prices, shifting business decisions to the enterprises and other reform steps.

That was the situation in the mid-1980s when Financial Cooperation with China began. In the expectation of further reforms, the efforts to modernize the industrial sector were supported with FC funds. One of the projects promoted in this context was the construction of a chipboard factory in Dongfanghong, a town about 800 km east of Harbin in Heilongjiang, a province in the northeast of China.

When the project was appraised in 1990 there was an evident supply shortage on the Chinese market for chipboard. As a result only 66% of the total demand could be met from Chinese production, and the remaining 34% had to be imported. Moreover, demand for chipboard was expected to rise during the 1990s, as the corresponding increases in production were expected in the furniture and building industries. The project in Dongfanghong was intended to increase productivity in this sector and make a contribution to general economic growth.

Heilongjiang was one of the most densely forested provinces in China when the project was appraised, but timber felling was clearly in excess of reforestation. To counteract the deforestation the forest authorities wanted to reduce felling, strengthen reforestation efforts and make better use of timber remnants. Inferior quality wood can also be used to make chipboard; hence the project also helped to protect resources because it was intended to reduce the pressure on China's woodlands. At the same time it was to reduce dependence on imports of tropical timber.

PR OF CHINA	
Population:	1,254 million
Area:	9,598,100 km ²
Population growth:	0.9% p.a.
Per-capita income:	US\$ 780
Population below poverty line:	5%
Literacy rate:	83%
Life expectancy:	70 years

The state-run Dongfanghong Forest Bureau was responsible for the project. It had originally been set up as a pure forestry enterprise but had then developed into an enterprise handling all the stages of timber processing. The factory in Dongfanghong was built between January 1992 and April 1997, equipped with the necessary machines and put into operation. The plant provided capacity to produce 100,000 m³ of chipboard, veneer 1.8 million m² and produce 9,840 t of glue a year. When the project was appraised it was expected that sales of chipboard would reach at least 84,000 m³ a year from the third year of operation, which would lead





to a positive financial result according to the assumptions made at the time.

However, at the final evaluation of the project in 1999 annual sales were only around 47,000 m³ and the company was operating at a loss at less than 50% capacity. The internal return on the capital invested was evidently negative.

The main reason the Dongfanghong chipboard plant has not been a commercial success is that the market for chipboard has not developed as was expected. Demand did grow, but not nearly at the same rate as supply, which nearly tripled between 1992 and 1998. As a result the supply shortage changed into a supply overhang. Another problem was that during the Asian crisis several neighbouring countries devalued their currencies, so chipboard imports from there could increasingly compete successfully with Chinese products. This put strong pressure on sales prices, which fell by nearly half within a few years.

In a market economy environment production capacities would be reduced in such a situation, and this would ultimately lead to a rise in sales prices. But the Chinese chipboard industry is dominated by state-run enterprises, and production was maintained even when an enterprise ran at a loss for years. At the same time there was no incentive to exploit the existing potential for rationalization and make production more profitable that way. Another factor affecting the Dongfanghong plant was that high costs of transport to the commercial centres in the south of China were a further obstacle to sales.

At the time of the final evaluation it was not expected that the unfavourable economic situation for the factory would improve in the foreseeable future. On the contrary, even the supply of timber appeared to be in jeopardy because the forestry authorities had greatly reduced timber felling on government instructions after increasingly frequent flood disasters. So it would not be possible to increase production to a commercially viable level.

As the profitability of the project is very much less than had been expected, and in view of the current situation, we have rated the developmental effectiveness of the project as evidently unsatisfactory (performance rating 5). We refrained from giving a lower rating because the factory was still operating.



MOZAMBIQUE ROAD SECTOR RECONSTRUCTION PROGRAMME

In 1992 a civil war in Mozambique that had lasted 16 years came to an end. During the war large parts of the public infrastructure, which in any case was hardly developed, was either destroyed or fell into decline because no efforts were made to maintain it. That also applied to the road network, of which only 3% was in good condition in 1994, while 44% was impassable.

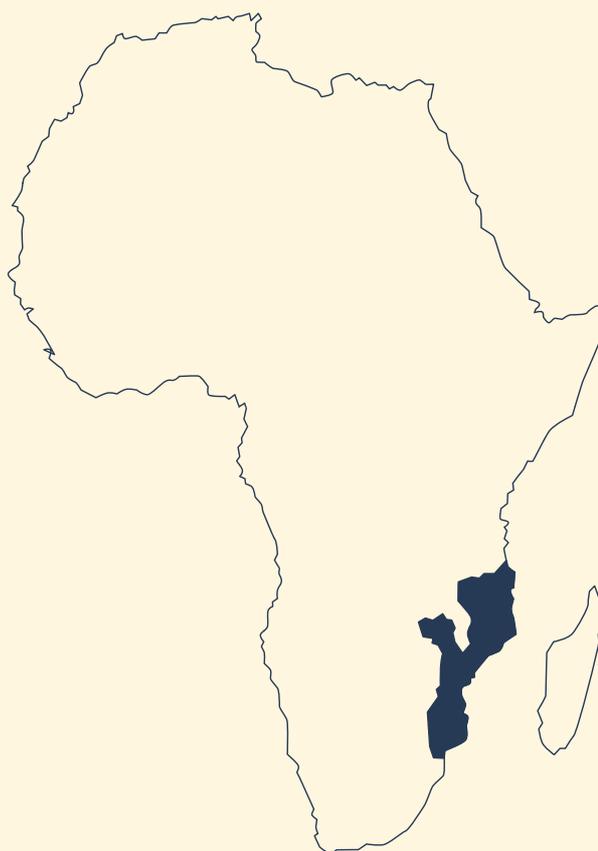
Fortunately, a process of peacemaking and democratization was started rapidly when the civil war ended. The demobilization of soldiers and militia was actively pursued, refugees from the war were helped to return to their native villages and successful parliamentary elections were held as early as 1994.

The process of reconstruction was actively supported by the international development assistance agencies and efforts to rebuild the infrastructure that had been destroyed were a major feature. Altogether 17 national and international organizations helped to repair the road network alone.

In this context KfW appraised an emergency aid programme in 1993 which concentrated on the provinces of Manica and Tete that had suffered greatly from the consequences of the civil war. Both areas lie in central Mozambique, and they were practically cut off from the rest of the country because even major roads were hardly passable. Not only were they in an extremely bad state, but some had been mined during the war. Restoring the most important road links was an absolute necessity to enable the people in these provinces to resume their work and their normal lives, and enable the refugees from these areas and the former soldiers to return to their villages.

Under the emergency aid programme that was carried out between January 1994 and February 1998 altogether 1,830 km of gravel roads were repaired and some were widened. The programme also included building five new smaller and one larger bridge and purchasing maintenance equipment. The UN had cleared the roads of mines; neverthe-

MOZAMBIQUE	
Population:	17 million
Area:	801,600 km ²
Population growth:	1.9% p.a.
Per-capita income:	US\$ 230
Population below poverty line:	69%
Literacy rate:	43%
Life expectancy:	45 years





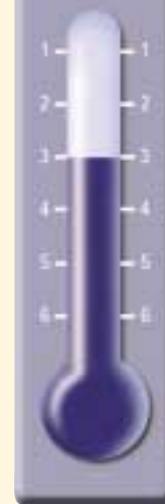
less, another 300 mines were found and defused on adjoining land that had to be entered or driven over during the building work. Labour-intensive techniques were used for the building work as far as possible in order to provide temporary income for the people.

When the programme underwent its final evaluation in 1999 the economic situation for the people in the two project provinces had clearly improved compared with their situation when it was initially appraised. The fact that during the interim the population had risen strongly, mainly as refugees returned, is clear evidence that the local people again believed in the economic prospects of the region. Agricultural output had risen noticeably. The renovated roads again enabled the farmers to take their produce to regional markets and sell it there. More schools and health stations had been built, traders had settled in the region and were supplying the people with goods for everyday needs. Finally the buses began to run again, as did group taxis, so the people could visit the district centres as needed from time to time at affordable prices.

Although this positive development cannot be exclusively ascribed to the repairs and improvements to the road network the programme did make a major contribution. When it was initially appraised it was expected that after completion the roads would be used by 20 motorized vehicles a day on average, but traffic counts have shown that current use is higher, with about half being trucks and buses. In addition, in one of the two provinces the bicycle has become the main means of transport; it is also used to carry loads and has largely replaced the difficult method of transport on foot with the load usually carried on the head. So it can safely be assumed that the programme is yielding sufficient return.

The intended employment effect has also been achieved. Owing to the labour-intensive method of building the programme created a total of 8,000 months work, most of which was performed by the local population. The income thus created has also helped the economic regeneration of the project region.

Responsibility for maintaining the road network lies with the Road Construction Authority of Mozambique, which is represented in the project region by a provincial authority. The Road Construction Authority derives the funds required to maintain and repair the roads from a road maintenance fund that was set up in 1992, and which in turn is fed from charges on diesel and petrol and transit tolls. In the first few years relatively low costs will be incurred to maintain the renovated roads, and at present they can all be met from the receipts of the maintenance fund. But when the gravel surface of the roads needs renewing in a few years' time the present level of revenue from the maintenance fund will not suffice, and in order to finance these periodic maintenance expenditures the charges that flow into the fund have to be increased. As experience has shown that measures of this kind are not easy to implement for political reasons some risk remains that the good state of the project roads will not be maintained. All in all we estimate the effects of the programme for the people in the project region as positive and significant; but as there is still a risk that the state of the roads cannot be permanently maintained we have attributed to the programme only a satisfactory developmental effectiveness (performance rating 2).



EGYPT RURAL ELECTRIFICATION FAYOUM II

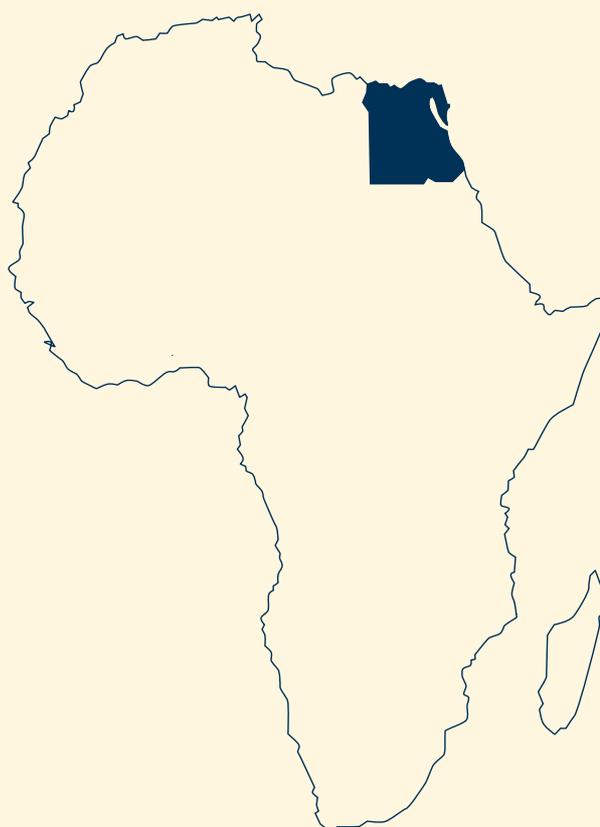
In the 1960s there was especially strong migration of the rural population in Egypt into the densely populated urban areas. One of the reasons for this was the lack of public infrastructure in the rural areas. Since the early 1970s the Egyptian Government has therefore been carrying out an extensive rural electrification programme, intended to supply 120 towns and 4,000 villages throughout Egypt with electricity. The Rural Electricity Authority was commissioned to plan and execute the programme and the completed components were handed over to the Egyptian Electricity Authority, the national supply company, which assumed responsibility for operating and maintaining the facilities. As the Egyptian electricity sector had been a main focus of German-Egyptian development cooperation since the early 1960s the rural electrification programme was also supported with FC funds.

FC promotion was concentrated on the Fayoum district. This region, in which today live just under 2 million people, lies about 75 km south of Cairo. The economy consists largely of agricultural activities. In the first half of the 1980s, however, some industrial firms also settled in the area. Owing to this development, and with the expansion of irrigation and the increase in domestic customers, Fayoum experienced a strong surge in demand for electricity at this time, which was further encouraged by the very low tariffs. The medium-voltage transformer and transmission capacities could not be expanded fast enough to keep pace with demand, and several transformer stations were overloaded, resulting in frequent power cuts in some parts of the grid. No further consumers could be connected. Moreover, the unreliable supply of electricity threatened to deter potential investors and prevent more industrial companies from establishing in the region.

Two projects to support the electrification of Fayoum were promoted with FC funds. In the first, which was appraised in 1978, the main concern was to expand the distribution network. The second project was appraised in 1982, but it was executed only between 1989 and 1994 owing to various delays.

EGYPT	
Population:	62 million
Area:	1,001,500 km ²
Population growth:	1.7% p.a.
Per-capita income:	US\$ 1,400
Population below poverty line:	23% (1996)
Literacy rate:	55%
Life expectancy:	67 years

In the second project two transformer stations were supplied and installed in El Bats and Aboksa. A mobile transformer station was also delivered to enable the supplier to react flexibly to shortfalls in the transformer capacities



caused by unexpected power failures or extensive repair work.

When the project was reappraised it was expected that two years after the taking into operation of the facilities the El Bats station would operate at 40% capacity and Aboksa at 30%. As the economic development of Fayoum was the main concern of the project another criterion of success was laid down, namely that the use of electricity for productive purposes must continue to be at least 50% in the two supply areas. At the final evaluation in 1998 it was evident that these targets had only partly been reached. While the utilization of the El Bats station met expectations, this was not the case for Aboksa, where utilization was only 15%. The reason for this unsatisfactory result was that a salt factory that was in the planning stage when the project was initially appraised had not been constructed, so that the projected demand of one major customer had not materialized. However, the share of electricity consumption used for productive purposes had risen to about 55% in Fayoum as a whole, so the project had evidently had positive effects on the economic development of the region.

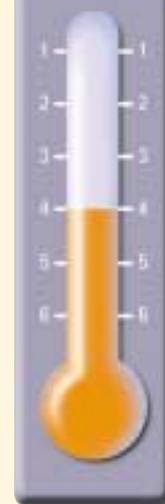
In assessing the success of projects in the electricity sector it is particularly important not only to evaluate one project in isolation but also to consider the development of the sector as a whole, as the facilities financed are usually small components in a large system. In Egypt the 1980s and 1990s were characterized by strong growth in demand for electricity. Generating capacities were quickly expanded to



meet this demand, rising from 5.1 gigawatts in 1981 to 13 gigawatts in 1996. At the same time the efficiency of the electricity supply was improved, as was evident from the marked reduction in transmission losses as well as the greater efficiency and fewer power station breakdowns. Electricity charges, which were still very low in the early 1980s, thus jeopardising the sustainability of the system, were raised in several stages, and at the time of the final evaluation of the project a much better degree of cost recovery had been achieved. So the overall level of supply and reliability in the electricity sector had substantially improved throughout Egypt during the execution of the project.

In view of the marked improvement in the efficiency of the electricity sector we have accorded this project overall satisfactory developmental effectiveness (performance rating 3), although the targets have not been fully achieved.





BOLIVIA

RURAL HEALTH CARE

PUNATA

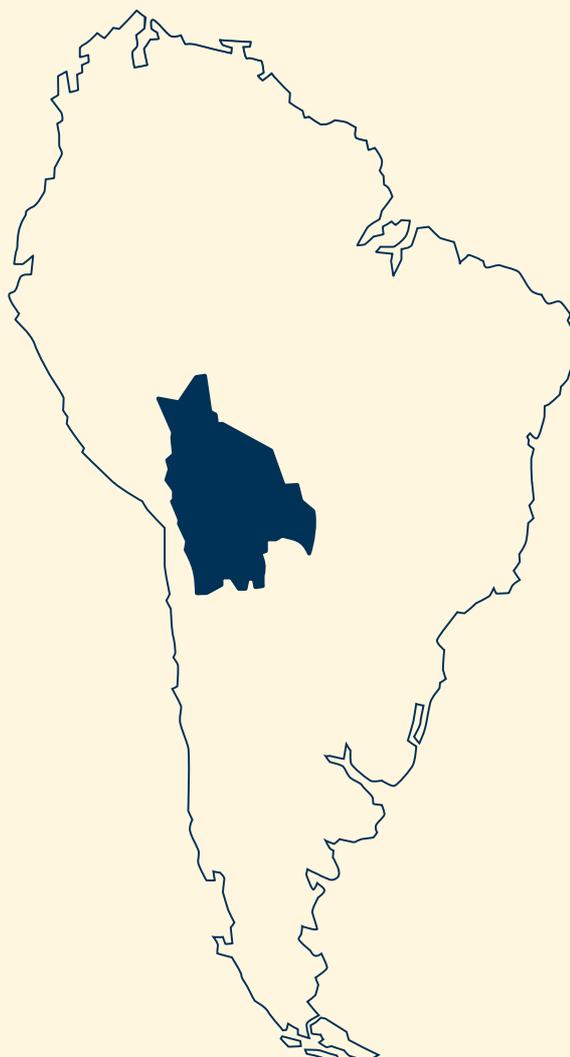
At the end of the 1970s Bolivia was the poorest country in Latin America with an annual per-capita income of around US\$ 700. The general health status of the population was also very poor. Average life expectancy was only 47 years, and the average infant mortality rate was 154 per 1,000 live births, in rural areas even as high as 250 to 300. This situation, which was mainly due to malnutrition, inadequate hygiene and generally poor-quality drinking water, was the starting point for German development cooperation in the health sector in Bolivia.

At the request of the Bolivian government the cooperation was to be concentrated on the district of Valle Alto in the Cochabamba department. The area covers 5,000 km² and at the time of the initial appraisal of the project about 180,000 people lived there. There were only 24 small public health centres and with their lack of equipment they could neither make diagnoses beyond simple routine cases nor undertake minor surgery. There were no proper laboratory facilities, X-ray equipment, adequate sterilization possibilities or other medical equipment. The supply of drugs and other material was also inadequate. Hence for most of the patients the supply of preventive health care and treatment was insufficient and for even minor complaints they had to go to the nearest bigger state hospital, which was 60 to 100 km away in Cochabamba, or attend relatively expensive private clinics.

The project was designed to improve basic health care in Valle Alto under a FC/TC cooperation arrangement. Political unrest caused a temporary suspension of development cooperation with Bolivia, which meant that the FC project, which was initially appraised in 1979, could not be executed until the late 1980s. The TC measures had started in the mid-1980s.

While the TC funds were used on the lowest level, for village health workers and simple health stations mainly providing preventive care, the FC project aimed to expand the facilities that mainly provided treatment. This was to create

BOLIVIA	
Population:	8 million
Area:	1,098,600 km ²
Population growth:	2.3% p.a.
Per-capita income:	US\$ 1,010
Population below poverty line:	67%
Literacy rate:	85%
Life expectancy:	62 years



the physical conditions for a functioning referral system. Specifically, a hospital was built and equipped in Punata, initially with 30 beds. It was to take referred patients from the district. On the intermediate level 9 health centres were expanded or built with 2 to 6 beds each and provided with the necessary equipment. In addition, an initial stock of basic drugs and other medical material was procured. The Bolivian Ministry of Health undertook to equip the health centres with medical and paramedical staff, to ensure that the supply of basic drugs and material would be maintained permanently and to bear the running and maintenance costs where these could not be covered from revenue.

When the final evaluation of the project was carried out in 1998 the provision of health care for the people of Bolivia had generally improved, but in comparison with other Latin American countries it was still very poor. In Valle Alto the main health indicators like infant mortality, malnutrition and others were about on the average for Bolivia. Nevertheless, use of the health care facilities financed remained far below expectations. On average only between 40% and 50% of the beds in Punata were occupied, and not even 1% of the inhabitants of Valle Alto, who then numbered 200,000, had been hospitalized there. Only between 4% and 14% of the beds in the health centres were being utilized. Very few patients had been referred to the hospital in Punata and it must be assumed that the health care facilities created had

not been accepted by the local people. Most patients avoided the referral route, preferring to go directly to the Cochabamba hospital or a private clinic.

The lack of acceptance and utilization is mainly due to the fact that the quality of the medical care in the hospital and the health centres is inadequate. The main reason for this is that under a decentralization policy pursued in the 1990s responsibility for the public health care system was largely transferred to the municipalities and district authorities, without preparing them adequately for their new work, either technically or organizationally. They receive public funds from the government in proportion to their population, and the funds are to be used to finance i.a. the operation and maintenance of their health care facilities. However, the councils and local mayors prefer to use the funds for measures likely to attract voters, like expenditure on infrastructure, rather than for the current expenditure needed in health care. Hence only about half the operating costs of the health centres were actually covered. Drugs and medical material like bandages were not available in sufficient quantities, and necessary repairs and maintenance work was not carried out. In the health centres and Punata hospital as well as in the district health administration many permanent positions were vacant and most of the doctors and nurses employed did not have the necessary qualifications; most of them were recent graduates sent to acquire initial experience.



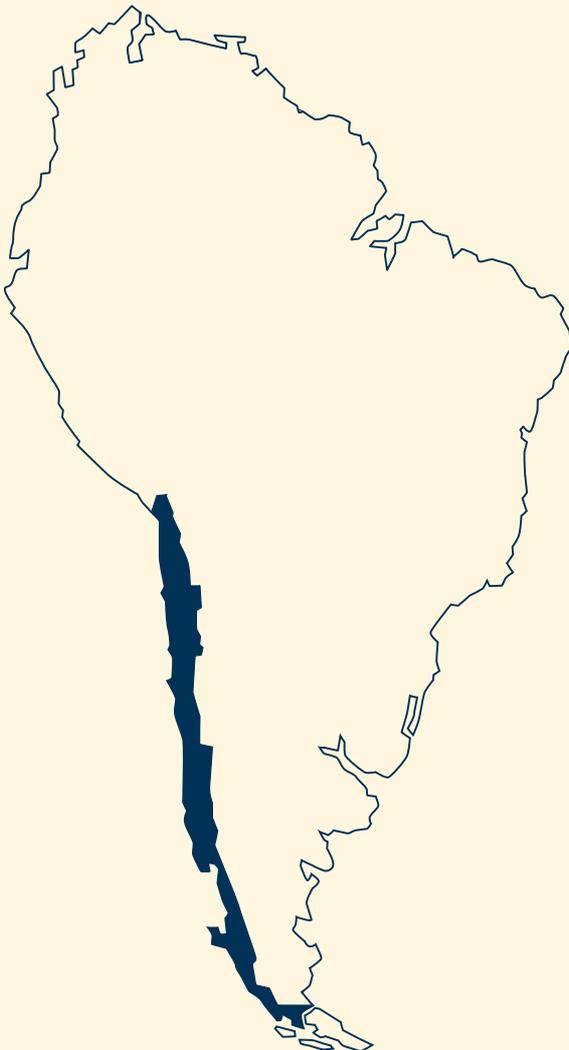


In the overall evaluation of the project the decisive fact was that although the health care infrastructure in Valle Alto had been improved the actual utilization of the facilities was lower than expected and the referral system was not working properly. Hence general health care had not been improved to the extent expected. In view of this we have rated the developmental effectiveness of the project as altogether insufficient (performance rating 4).



CHILE PROMOTION OF SMALL AND MEDIUM-SIZED INDUSTRIAL ENTERPRISES (CORFO)

CHILE	
Population:	15 million
Area:	756,600 km ²
Population growth:	1.3% p.a.
Per-capita income:	US\$ 4,740
Population below poverty line:	21%
Literacy rate:	96%
Life expectancy:	75 years



From the mid-1980s to the early 1990s Chile was able to reach real annual economic growth rates of around 5%, a considerable achievement in the Latin American context. This also led to a clear rise in per-capita income. However, the economic growth was largely fuelled by a few large enterprises. The many small and medium-sized enterprises (SMEs), which employ more than 90% of the Chilean workforce, benefited little from the economic upswing. The technological equipment at their disposal remained far behind international standards, and with the consequently low productivity they could pay only low wages.

At the same time the economic policy of increasingly opening the Chilean markets to foreign suppliers put the SMEs under enormous pressure to adjust, which required modernization or expansion investment. But many of them did not have the necessary capital, and in the early 1990s Chile was still suffering under the effects of a banking crisis in the 1980s. Investors were not willing to make long-term deposits in the banking system. Regulations imposed by the supervisory authorities and risk considerations made it practically impossible for the banks to give long-term loans, and certainly not to SMEs, and so they concentrated their investment finance almost exclusively on lending to the large enterprises that were operating internationally. At best, SMEs received short-term loans at high interest rates. Hence they did not undertake the necessary investment, their competitiveness deteriorated, the level of wages fell further and workers faced redundancy. In this situation the FC programme "Promotion of Small and Medium-Sized Industrial Enterprises" was launched with the aim of helping to improve the competitiveness of SMEs by funding long-term loans, and at the same time making this group of customers attractive to the commercial banks.

The partner organization for the programme was Corporación de Fomento de la Producción (CORFO). It had been set up in 1939 as a state corporation to promote industrial production. Until the end of the 1980s its activities consisted mainly of direct lending to state enterprises and complemen-



tary advisory services. Owing to political influence on lending and delays in obtaining outstanding claims, however, this constellation was jeopardizing the continued existence of the institution.

When Chile returned to democratic government in 1990 CORFO was also given new tasks. In 1991 direct lending was stopped and funding SME loans became the institution's main task. Like KfW in its promotion of the German economy CORFO makes long-term funding available to private commercial banks for investment loans. The FC funds at favourable interest rates were to enable CORFO to expand its business, especially for smaller firms in industry, and so increase their potential for growth and employment.

Initially the programme moved only sluggishly, but then, after the first positive experience and enhanced by a generally positive economic development, the available credit line met with growing demand. Ultimately the banks realized that SMEs can also be an interesting group of customers.

So in the final evaluation of the programme it was evident that the objectives had been fully achieved. Nearly 100 investment loans for a total volume of EUR 15 million had been given to SMEs in cooperation with altogether 10 banks. That amount has now risen to more than EUR 23 million, as repayments on the loans, together with funds from the banks themselves, have been used to fund more loans. The Chilean funds mobilized are now about twice the volume of the FC funds provided.

A large part of the sub-loans funded went to the metal and wood processing industries. The regional focus was in the greater Santiago district, the industrial heartland of Chile. Nearly three quarters of the loans went to small firms with an annual turnover of less than EUR 1.5 million, the rest to medium-sized firms with an annual turnover of less than EUR 3 million. Hence the programme has created a lasting improvement in access to investment loans, particularly for smaller firms. By the final evaluation it had created at least 500 new jobs and secured a large number of existing ones.

Although the general economic situation in the country had deteriorated at the time of the final evaluation – Chile suffered a fall in its gross domestic product of 1.1% in 1999 – the percentage of companies in arrears was less than 2%, far below the target set when the programme was appraised. That shows how carefully the commercial banks have examined their customers' creditworthiness, and it is also an indication of the commercial efficiency the companies have gained through their investment.

On the side of the banks important learning effects have been achieved under the programme. The positive experience of cooperation with the SMEs not only led to a gradual prolongation of the terms of the loans during the execution of the programme, it has also led to a reduction in the risk margin demanded by the banks. Compared with the programme appraisal the willingness of the banks to commit their own funds to long-term investment finance has noticeably increased. SMEs are increasingly being seen as a strategically important group of customers for the future growth of the banks.

In conclusion, we gave the programme the highest mark of good developmental effectiveness (performance rating 1) in view of the evident overall improvement in the competitiveness of the SMEs and the positive employment and income effects achieved. The particularly positive rating of this programme is also due to the fact that the banks' more open attitude to a group of customers formerly seen as unattractive (SMEs) has had structural effects that go beyond the programme itself.

LIST OF PROJECTS
THE CRITERIA FOR EVALUATING PROJECT PERFORMANCE

List of Projects

FINANCIAL SECTOR

BMZ No.	Country	Project Name	FC Amount (EUR million)	Performance Rating
198866261	BANGLADESH	Grameen Bank Flood Relief	5.1	1
199365347	BURKINA FASO	Development Bank CNCA IV	2.6	3
199665365	CAMBODIA	NGO ACLEDA (Credit Line for SI) I	2.6	1
199066135	CHILE	SME Promotion CORFO XI	7.7	1
199265075	INDIA	Development Bank IFCI XXVI	12.8	4
199365404	INDIA	HUDCO IV	17.9	4
199565110	INDIA	HUDCO V	17.9	4
199465675	INDIA	NABARD VI: Promotion of Small-scale Enterprises	15.3	3
199567108	INDIA	NABARD VIII: Promotion of Small-scale Enterprises	25.6	3
199365362	INDIA	SIDBI I	18.1	3
199466541	INDIA	SIDBI II	15.3	3
198666174	JORDAN	Cities and Villages Development Bank (CVDB I)	8.7	2
198966574	JORDAN	Industrial Development Bank (IDB VIII)	10.2	2
199665639	MALI	Promotion of the Financial Sector BNDA V	4.4	1
199866138	MALI	Promotion of the Financial Sector BNDA VI	2.6	1
199665555	MAURITANIA	UNCACEM II	1.5	4
199465444	MOROCCO	Rural Financial Sector Programme CNCA VIII	27.8	5
198966293	MOZAMBIQUE	Promotion of Small Enterprises GAPI I	1.8	3
198766503	NEPAL	Development Bank NIDC V	2.6	4
199565102	PHILIPPINES	Promotion of Small Enterprises I	7.6	3
20			208.1	

PRODUCTION

Agriculture, Forestry, Fishing

BMZ No.	Country	Project Name	FC Amount (EUR million)	Performance Rating
199365487	ALBANIA	Sector Programme Private Agriculture I	4.4	3
197565849	BOLIVIA	Irrigation Programme Altiplano/Valles	20.0	2
198766453	BOLIVIA	Irrigation Project Culpina	4.4	2
197965106	BRAZIL	Irrigation Curu-Paraipaba	4.5	5
197165038	BRAZIL	Irrigation ICO-Campos	5.2	5
198265480	BRAZIL	Provárzeas/Espirito Santo	6.1	4
199565698	ETHIOPIA	Sector Programme Agriculture I	11.8	2
199665530	ETHIOPIA	Sector Programme Agriculture II	25.6	2
199666215	GEORGIA	Sector Programme Agriculture I	3.4	4
199366329	KYRGYZSTAN	Sector Programme Agriculture	1.4	5
198965915	MOROCCO	Investment Measures for Agricultural Research	5.4	4
198065070	MOROCCO	Regional Seed Centres Sonacos	11.2	5
199266024	NAMIBIA	Rehabilitation of Hardap Dam	3.3	2
197965114	PAKISTAN	Irrigation Programme Ghotki	14.9	3
197466014	PERU	Irrigation Programme Jequetepeque	151.7	3
197865157	SRI LANKA	Irrigation Programme Kirindi Oya	19.8	3
197865835	SYRIA	Orchard Plantations	49.5	2
198466070	UGANDA	Rehabilitation of Central Agricultural Storage Centres	2.8	4
198665788	ZIMBABWE	Grain Storage Programme	8.7	6
19			354.1	

List of Projects

PRODUCING SECTOR Manufacturing and Raw Materials

BMZ No.	Country	Project Name	FC Amount (EUR million)	Performance Rating
198866659	CHINA P.R.	Chipboard Factory Dongfanghong	25.4	5
198566051	CHINA P.R.	Chipboard Factory Shaowu	9.2	5
199065368	CHINA P.R.	Chipboard Factory Suihua	7.7	5
198865263	CHINA P.R.	Pipe Factory Jinxi	11.1	4
198966236	CHINA P.R.	Special Pipe Factory Daye	22.6	5
198865669	CHINA P.R.	Tyre Factory Guiyang	5.1	1
197865410	EGYPT	Cement Factory of NCC	75.4	4
199366287	ETHIOPIA	Sector-Related Import Programme Private Industry II	9.4	3
198865321	INDIA	Open-pit Hard Coal Mining Ramagundam II	42.7	3
9			208.6	
28			562.7	

PROTECTION OF NATURAL RESOURCES AND THE ENVIRONMENT

BMZ No.	Country	Project Name	FC Amount (EUR million)	Performance Rating
198565053	BENIN	Timber and Forest Management, Phase III	10.5	3
198966418	BENIN	Timber and Forest Management, Phase IV	17.9	3
199365388	KENYA	ICRAF Extension Measures	2.3	1
199265661	KENYA	KWS Environmental Protection Programme	13.0	4
199065681	MADAGASCAR	Environmental Action Plan II (Mapping)	2.6	4
5			46.3	

SOCIAL INFRASTRUCTURE
Water Supply, Sanitation, Waste Disposal

BMZ No.	Country	Project Name	FC Amount (EUR million)	Performance Rating
198965626	BENIN	Water Supply 7 District Centres	8.2	3
199065483	BENIN	Water Supply Abomey-Bohicon II	4.8	3
199165721	BENIN	Water Supply Parakou	2.4	3
197165541	BRAZIL	Flood Control Rio Dos Sinos	12.1	2
197965684	BURKINA FASO	Textile Factory Faso Fani (Waste Water Treatment Plant)	1.3	3
199165531	BURUNDI	Sewage Disposal Bujumbura	14.3	6
198765646	CAP VERDE	Sector Programme Water Supply	1.0	4
197565666	EGYPT	Water Works Embaba	30.7	4
199265349	ETHIOPIA	Sector Programme Water Supply	6.6	3
199066044	GAMBIA	Rural Water Supply III	3.1	3
199365784	GAMBIA	Rural Water Supply IV	2.3	3
198965659	GHANA	Waste Disposal Accra Phase II	2.3	3
199265216	GHANA	Sector Programme V	2.6	3
198065989	INDIA	Rural Water Supply Madhya Pradesh, Ph. I	11.8	5
198965345	INDONESIA	Water Supply Padang, 1st Extension Stage	6.3	4
198865180	MALAWI	Development of Secondary Centres III (Karonga)	3.4	3
199065996	MALI	Sector Programme Drinking Water I	2.5	4
198565483	NIGER	Rural Water Supply Agadez and Tahoua	13.3	3
198265720	NIGER	Water Supply 4 Villages, Phase I	4.6	4
198166100	NIGER	Water Supply Maradi	6.6	4
198565186	NIGER	Water Supply Zinder II	10.9	4
199265323	PHILIPPINES	Repair of Pinatubo Volcano Damage I	5.1	2
198565459	SIERRA LEONE	Rural Drinking Water & Sanitation Bo-Pujehun I-III	9.2	4
199066176	SIERRA LEONE	Rural Drinking Water & Sanitation Bo-Pujehun IV	3.3	4
197966120	SIERRA LEONE	Solid Waste Disposal Freetown I	3.6	5
198766354	SIERRA LEONE	Solid Waste Disposal Freetown II	5.2	5
198865578	TCHAD	Water Supply Abéché	15.6	3
198465429	ZAMBIA	Rural Water Supply Central Province	3.1	2
198966459	ZAMBIA	Rural Water Supply Central Province II	3.1	2
199365719	ZAMBIA	Rural Water Supply Central Province III	4.9	2
199265893	ZAMBIA	Rural Water Supply Central Province II – Emergency Programme	0.7	2
198566093	ZIMBABWE	Rural Water Supply in Gutu District	1.4	2

List of Projects

SOCIAL INFRASTRUCTURE Health, Education, Other

BMZ No.	Country	Project Name	FC Amount (EUR million)	Performance Rating
199365230	ALBANIA	Expansion of Municipal Infrastructure (ABM I)	2.6	2
199566423	ALBANIA	Expansion of Municipal Infrastructure (ABM II)	5.1	2
199265091	BANGLADESH	Construction of Multi-Purpose Cyclone Shelters/BDRCS	2.3	2
199165424	BANGLADESH	Population Programme IV	52.2	3
199165523	BANGLADESH	Primary Schools/Cyclone Shelters	9.8	1
197866288	BOLIVIA	Rural Health Care I (Punata)	3.1	4
199066028	CHILE	Rehabilitation of Hospitals I	15.3	2
198665994	CHINA P.R.	Equipment for Training Centre Tianjin	12.8	2
198766412	EL SALVADOR	Children's Hospital Benjamin Bloom	33.2	2
198365025	HAITI	Slum Rehabilitation Lintheau/Port-au-Prince	4.2	4
198565152	HAITI	Slum Rehabilitation La Fossette/Nan Bannan	5.8	4
198365256	HAITI	Slum Rehabilitation Vieux St. Martin/Z.I.	5.5	4
198865453	HONDURAS	Housing Improvement in Urban Peripheries I (PRIMHUR I)	5.1	2
199565946	HONDURAS	Housing Improvement in Urban Peripheries II (PRIMHUR II)	6.4	2
198666125	HONDURAS	Rural Low-Cost Housing II	3.6	3
199566183	KYRGYZSTAN	Sector Programme Mother-Child Health Care	1.5	2
199465840	MALAWI	Sector Programme "Drugs for Rural Health Centres"	5.1	2
199265562	MALI	Employment Programme	5.1	2
198665713	NIGER	Primary School Education	1.8	3
199266032	PAKISTAN	Flood Damage Repair	7.7	3
199465006	PAKISTAN	Population Programme (Social Marketing Contraceptives) I	15.3	2
199365479	PHILIPPINES	Repair of Pinatubo Volcano Damage II	5.8	2
199165051	RWANDA	Sector Programme Family Planning	2.0	3
198566200	SENEGAL	Social Settlement Kaolack	2.5	5
199466582	SWAZILAND	Family Planning and AIDS Prevention	0.5	3
199566381	UZBEKISTAN	Sector Programme Health Care and Family Planning	2.6	2
26			216.9	
58			421.6	

STRUCTURAL AND SECTOR ADJUSTMENT PROGRAMMES
Multisectoral

BMZ No.	Country	Project Name	FC Amount (EUR million)	Performance Rating
199566324	COTE D'IVOIRE	Sector Adjustment Programme Agriculture II	15.1	2
199565789	GHANA	Sector Adjustment Programme Private Industry	22.0	2
199165143	KENYA	Sector Adjustment Agriculture II (ASAO II)	14.5	4
199665563	MAURITANIA	Debt Repurchase Programme	0.8	2
199265786	MOZAMBIQUE	Adjustment Support III	15.3	2
199465972	NICARAGUA	Adjustment Support II	10.2	3
199365412	UGANDA	Adjustment Support III	3.0	1
199365651	ZAMBIA	Structural Adjustment Programme III (SAP III)	10.2	3
199366071	ZIMBABWE	Structural Adjustment Programme II/III	20.5	5
9			111.6	

List of Projects

ECONOMIC INFRASTRUCTURE

Electricity

BMZ No.	Country	Project Name	FC Amount (EUR million)	Performance Rating
198665853	BANGLADESH	230 KV Transmission Line Ashuganj-Comilla	41.7	4
198665630	BANGLADESH	Reactive Power Compensation	11.5	4
198765331	BANGLADESH	Extension of Sub-Stations Tongi and Ishurdi	15.9	4
197965403	BANGLADESH	Rehabilitation of Power Transmission System Western Zone	7.7	4
198365637	BANGLADESH	Rehabilitation of Power Plant Ashuganj I-II	28.1	4
199065343	BENIN	Transmission Line Nangbeto-Bohicon	1.7	2
198866493	CHINA P.R.	Coke Gas Treatment Beijing	13.0	3
197766215	COLOMBIA	Power Supply Cundinamarca	12.5	2
198265365	EGYPT	Three Sub-Stations (Bassateen and Others)	14.7	1
198165771	EGYPT	Rural Electrification Fayoum II	5.5	3
198267635	EGYPT	Project-specific Commodity Aid (500 KV Line + 220 KV Line)	11.2	1
199165457	EGYPT	Rehabilitation of Power Plants III, Assuan I, Ph. I	40.9	2
199166216	EGYPT	Rehabilitation of Power Plants III, Assuan I, Ph. II	69.4	2
198166084	EGYPT	Rehabilitation of Sub-Stations I	46.4	1
198565707	EGYPT	Two Sub-Stations (Domiati, Itay El Baroud)	13.8	1
198065476	INDIA	Open-pit Lignite Mining and Power Plant Neyveli II	260.7	3
198465924	INDIA	Open-pit Lignite Mining and Power Plant Neyveli III	139.0	3
198965840	INDIA	Gas Turbine Power Plant Dadri	113.4	3
198566069	INDIA	Thermal Power Plant Farakka	6.6	4
198165631	INDIA	Thermal Power Plant Korba	55.0	3
198265209	INDIA	Thermal Power Plant Ramagundam	35.1	2
199266115	INDONESIA	150 KV Transmission Line Pauh Limo-Simpang Haru	10.8	3
199165515	INDONESIA	Diesel Power Plant Batam I	9.8	4
198465684	INDONESIA	Diesel Stations II	16.4	3
198866162	INDONESIA	Diesel Stations III	12.4	3
199365255	MONGOLIA	Emergency District Heating Supply Darhan I	4.9	2
199565862	MONGOLIA	Emergency District Heating Supply Darhan II	2.6	2

ECONOMIC INFRASTRUCTURE
Electricity

BMZ No.	Country	Project Name	FC Amount (EUR million)	Performance Rating
198265746	NEPAL	Hydropower Marsyangdi	95.6	3
199265182	NICARAGUA	Reh. and Extension of Power Distribution Systems I	5.1	2
198565947	PAKISTAN	500/220 KV Sub-Station Lahore & Peshawar	35.3	3
198666240	PAKISTAN	Expansion of Thermal Power Plant Bin Qasim	26.0	3
199365909	PAKISTAN	Gas/Steam Turbine Power Plant Kot Addu 13-15	36.1	3
198365629	PAKISTAN	Gas Turbine Power Plant Kot Addu 1-2	59.4	3
198766206	PARAGUAY	Rural Electrification Eastern Paraguay	5.4	2
198765208	PHILIPPINES	Sub-Station Metro Manila	32.1	1
199565367	RWANDA	Rehabilitation of Ntaruka Hydropower Plant	4.8	3
198865255	SYRIA	Gas Turbine Power Plant Tayem	52.3	3
198966079	TANZANIA	220 KV High Voltage Line Kidatu-Morogoro	14.1	3
199365735	TANZANIA	220 KV High Voltage Line Morogoro-Dar es Salaam	18.9	3
199065640	TANZANIA	Network Control Centre for Mtera Hydropower Plant (partial financing)	10.1	4
198766420	THAILAND	Improvement of Rural Power Distribution I	8.2	1
199065459	THAILAND	Improvement of Power Supply in the Central Region	38.3	1
198865800	TOGO	Power Supply Kpalime	9.2	3
198866048	TOGO	Transmission Line Atakpame-Notse	2.4	3
199066275	TOGO	Transmission Line Nangbeto-Bohicon	1.7	2
198865065	TOGO	Sub-Station Atakpame	2.3	2
199066036	TURKEY	Overhead Line Ankara-Istanbul	26.6	3
198966061	TURKEY	Overhead Line Eastern Anatolia-Ankara	41.3	3
48			1,525.9	

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ECONOMIC INFRASTRUCTURE Transport and Communications

BMZ No.	Country	Project Name	FC Amount (EUR million)	Performance Rating
197765324	BANGLADESH	River Ships Chalna	7.9	4
198866022	BANGLADESH	Rural Roads and Markets	13.0	2
199265976	BENIN	Rural Road Construction Atlantique II	1.0	3
198565244	BENIN	Rural Roads Atlantique Province	2.8	3
199565201	CHINA P.R.	Telecommunications Qinghai	7.0	1
199465980	CHINA P.R.	Rural Telecommunications Guangxi II	16.9	1
199465097	CHINA P.R.	Rural Telecommunications Shandong III	19.6	1
198866386	COTE D'IVOIRE	Sector Programme Earth Road Maintenance	14.1	4
198665762	EGYPT	Equipment for Control of Operations of ENR	7.9	4
199166026	EGYPT	Introduction of Mechanised Permanent Way Maintenance	10.0	4
199265638	EGYPT	Spare Parts for Tabien Workshop of ENR	4.3	4
198065930	EGYPT	Permanent Way Rehab. Egypt National Railways	32.2	4
198666216	EL SALVADOR	Rural Telecommunications	7.1	2
197465321	GAMBIA	Ferryboat Connection Banjul-Barra	4.0	4
199066333	GAMBIA	Public Passenger Transport III	1.8	5
198466039	GAMBIA	Rehabilitation of Ferryboats Banjul-Barra	3.0	4
1988665651	GHANA	Rehabilitation Lower Volta Bridge	11.9	1
197965015	GHANA	Transport System Lake Volta I	47.4	4
198765760	GHANA	Transport System Lake Volta II	9.7	4
198165813	GUINEA R.	Port of Conakry, Phase I	8.2	3
198766065	GUINEA R.	Port of Conakry, Phase II	12.8	3
199365768	LAOS	Rural Telecommunications I	2.0	1
199465535	LAOS	Rural Telecommunications II	5.1	1
198666257	MADAGASCAR	Port Equipment III	1.9	4
198866436	MALAWI	Dwangwa-Nkhata Bay Road	16.0	2
199365446	MOZAMBIQUE	Road Sector Reconstruction Programme	17.9	2
199265190	NICARAGUA	Rehab./Improvement of Telecommunications Managua	7.4	3
198965428	PAPUA NEW GUINEA	Airport Equipment (VHF Rotating Radio Beacon)	3.3	3
198866576	TANZANIA	Railroad Bridge Rehabilitation Phase II	4.6	4
199065798	TANZANIA	Railroad Bridge Rehabilitation Phase III	8.2	4

ECONOMIC INFRASTRUCTURE
Transport and Communications

BMZ No.	Country	Project Name	FC Amount (EUR million)	Performance Rating
199265851	TANZANIA	Railroad Bridge Rehabilitation Phase IV	5.9	4
197821531	TANZANIA	Telecommunications Equipment	0.9	4
198965956	TANZANIA	Rehabilitation of Road Same-Segera	4.6	3
198765695	TANZANIA	Rural Regional Road Lushoto, Phase II	3.1	3
198067878	TANZANIA	Project-related Commodity Aid V (Telecomm. Equipment for TRC)	9.5	4
198066094	TANZANIA	Project-related Commodity Aid VI (Railroad Bridges for TRC)	14.7	4
199066218	TANZANIA	Rehabilitation of Road Segera-Same, Phase II	18.4	3
198965238	THAILAND	Sector Programme Railways I	4.9	4
198966269	TURKEY	Turkish State Railways III	11.2	4
199466699	UZBEKISTAN	Emergency Assistance Programme Tashkent Airport II	33.9	2
199466491	UZBEKISTAN	Emergency Assistance Programme Tashkent Air Traffic Safety	2.5	2
198565145	YEMEN REPUBLIC	Rehabilitation Sana'a-Taiz Road	19.4	3
198865222	ZIMBABWE	Air Traffic Safety Equipment, Phase II	4.2	2
199466236	ZIMBABWE	Air Traffic Safety Equipment, Phase III	1.1	2
198365561	ZIMBABWE	Project-related Commodity Aid VII (Air Traffic Safety Equipment)	17.4	2
198766321	ZIMBABWE	Remote Control Signalling Bulawayo-Victoria Falls	3.6	4
46			464.3	
94			1,990.2	

List of Projects

OVERVIEW: Water and Sanitation in Sub-Saharan Africa – Completed Operations

BMZ No.	Country	Name of project	FC Amount (EUR million)	Performance rating
198965626	Benin	Water Supply Seven District Centres	8.2	3
199065483	Benin	Water Supply Abomey-Bohicon II	4.8	3
199165721	Benin	Water Supply Parakou	2.4	3
199165531	Burundi	Sewage Disposal Bujumbura	14.3	6
198765646	Cape Verde	Sector Programme Water Supplies	1.0	4
198865578	Chad	Rural Water Supply Abéché	15.6	3
199265349	Ethiopia	Sector Programme Water Supplies	6.6	3
199066044	Gambia	Rural Water Supplies III	3.1	3
199365784	Gambia	Rural Water Supplies IV	2.3	3
198865180	Malawi	Expansion of Secondary Centres III (Karonga)	3.4	3
199065996	Mali	Sector Programme Drinking Water I	2.5	4
198565483	Niger	Rural Water Supply Agadez & Tahoua	13.3	3
198265720	Niger	Water Supply 4 Villages, Phase I	4.6	4
198166100	Niger	Water Supply Maradi	6.6	4
198565186	Niger	Water Supply Zinder II	10.9	4
198565459	Sierra Leone	Rural Water Supply and Sanitation Bo-Pujehun I-III	9.2	4
199066176	Sierra Leone	Rural Water Supply and Sanitation Bo-Pujehun IV	3.3	4
198465429	Zambia	Rural Water Supply Central Province	3.1	2
198966459	Zambia	Rural Water Supply Central Province II	3.1	2
199365719	Zambia	Rural Water Supply Central Province III	4.9	2
199265893	Zambia	Rural Water Supply Central Province II – Emergency Programme	0.7	2
198566093	Zimbabwe	Rural Water Supply in the Gutu District	1.4	2
			125.3	



Chad – Rehabilitated earth roads in the Quaddai.

THE CRITERIA FOR EVALUATING PROJECT PERFORMANCE

KfW subjects every FC project to a final evaluation, which is generally made three to five years after the investment has been completed. An independent firm of auditors, PwC Deutsche Revision Wirtschaftsprüfungsgesellschaft, then examines KfW's rating. In the past there has been a high degree of agreement between the ratings given by PwC and KfW. In the few cases where views differed this report is based on the PwC rating.

In the assessment of the "developmental effectiveness" of a project and its assignment in the final evaluation to one of the categories described in more detail below, the following are the main aspects considered:

- Are the desired **objectives of the project** being achieved to a satisfactory degree (the aspect of **effectiveness** of the project)?
- Are **important developmental effects** being achieved with the project to a satisfactory extent (the aspect of **relevance and significance** of the project, measured by the achievement of the overall development goal fixed in advance and the political, institutional, socio-economic and socio-cultural as well as ecological impacts)?

- Were and are the objectives being achieved at an acceptable cost, and what was the economic and financial impact of the project (the aspect of **efficiency** of the project concept)?
- Where undesired (**side**) effects have occurred, are these acceptable?

The aspect of **sustainability**, which is of utmost importance for the evaluation of a project, is not treated by us as a separate category (unlike the World Bank, for instance), it is a cross-cutting theme in all of the above four basic questions. A project is sustainable if the project-executing agency and/or the target group are capable of operating the project facilities through an economically appropriate lifetime, after the financial, organizational and/or technical support has ceased, or if they are able to maintain the project activities independently with positive results.

The Criteria for Evaluating Project Performance



Mali – Transport by pirogues on Niger stream.

The most important individual criteria for the rating of FC projects are:

- **Achievement of the project objectives and development of sectoral conditions:**

Before appraising a new project we analyze the problems which the project is intended to help solve, or the developmental potential it is to promote. From this analysis the project's set of objectives is derived. The objectives are then concretized by means of indicators that reflect clear and ver-

ifiable targets. In the final evaluation KfW examines whether these targets have been met. The reasons for any deviations are analyzed. In many cases a consideration of the project alone is not sufficient. Often the reasons for inadequate achievement of the project objective lie in unexpected developments in sector conditions.

- **Financial Effects**

In the financial analysis we examine the financial impact of the FC project on the organization operating the project facilities. Inadequate financial effects like lack of profitability or liquidity shortfalls for the operator can jeopardize the achievement of the objectives.

But financial profitability is not a suitable criterion of success for every FC project. In the case of health care or basic education projects, contributions from users generally cover only part of the costs and the rest has to be financed from the state budget. In these cases the financial analysis also covers whether the financial burden on the state caused by the project is acceptable.

India – Ladies casting concrete.



➤ **Economic Effects**

In the economic analysis the costs and benefits are examined with respect to the economy as a whole. Any distortions of the relevant financial prices that can, for instance, result from taxes or subsidies, are eliminated by the use of "shadow prices". The results of the financial and economic calculations can thus differ considerably.

➤ **Socio-economic and socio-cultural effects**

In the socio-economic analysis the project impact on the living conditions of the target group is examined. Have additional jobs been created? What effect has there been on income distribution? Has the project helped to narrow regional development gaps or widened these? Another aspect of concern here is in how far the project has fitted into the socio-cultural environment and whether acceptance problems have arisen. Special attention is paid to the effects on women.

➤ **Environmental Impact**

The environmental impact assessment should identify and assess any possible negative effects on human health and the ecosystem. Measures to limit damage to the environment are also included in the evaluation. Finally it must be assessed whether the remaining negative environmental effects are acceptable. If the final evaluation shows that serious and irreversible damage to the environment has occurred the project is classified as not successful, even if the other effects are positive.

OVERALL EVALUATION

It is not always easy to assign a project to one of the six categories. Generally both positive and negative effects have occurred. Hence these must be considered and weighted. In view of the considerable differences in the nature of the projects this weighting cannot be identical for all FC measures but must be related to each individual case.



Albania – Intensive agriculture.

Abbreviations

AFD
Agence Française de Développement

BMZ
Bundesministerium für wirtschaftliche
Zusammenarbeit und Entwicklung
(Federal Ministry for Economic Cooperation and
Development)

EIB
European Investment Bank

FC
Financial Cooperation

GTZ
German Agency for Technical Cooperation

HWWA
Hamburger Weltwirtschafts-Archiv

KfW
Kreditanstalt für Wiederaufbau

NGO
Non-Governmental Organization

PPP
Public-Private Partnership

PSP
Private Sector Participation

PwC
PwC Deutsche Revision Wirtschaftsprüfungsgesellschaft (member of PricewaterhouseCoopers International)

TC
Technical Cooperation

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