Debt-for-water swap: a first in Sudan
by Cole P. Dodge

UNICEF has advocated economic adjustment with growth through three recently published books: *Adjustment with a Human Face, Within Human Reach: A Future for Africa's Children* and the *1989 State of the World's Children Report*. UNICEF combines advocacy with practice, although in the case of indebtedness this has been difficult. In December, 1988, the Midland Bank announced a debt-for-development swap in Sudan to finance a UNICEF water and environmental sanitation project.

While there is a global trend towards debt forgiveness between countries and multilateral debt reschedulment is covered under IMF adjustment packages, it is the commercial debt which is most worrying and problematic. The banking institutions of the world hold these bad loans with little or no way realistically to make good on their investment. Consequently, a secondary market has developed where loans which are in default are traded at a discounted value ranging from as little as 2 to 5 per cent up to 70 or 80 per cent depending on the economic prognosis of the particular country. In the case of Sudan the secondary market value of commercial debt is estimated to

WATER AND environmental sanitation have been the mainstay of the UNICEF programme in Sudan since the mid-1970s. It has not been until recently, however, that drilling and handpump installation targets have been met despite large investment, provision of technical assistance and the introduction of hammer drilling rigs (see Figure 1 for a comparison between targets and achievements in Kordofan region). The dramatic success represented by new boreholes overtaking and surpassing targets in 1988 was achieved through improved management by the National Rural Water Corporation (NRWC) which included the introduction of production bonuses. For background on production bonuses, see 'Drilling and pump replacement incentives in Uganda', *Waterlines*, Vol 5, No 2, 1986.

Economic conditions in Sudan have declined throughout 1987 and 1988, in part due to the crippling debt burden which the country bears. The drilling programme, however, has had its best year ever. Sudan's foreign debt has risen from approximately US$300 million in the early 1970s to over $1.3 billion in 1988. The interest payments alone have been too high to meet, and thus the burden goes on growing, even without any new loans being made. The structure of Sudan's debt reflects the general situation in Africa. About one-fifth of the total loan is commercial, one-quarter is owed to multilateral institutions, one-quarter to Western governments and one-quarter to Arab and OPEC plus other non-Western donors.

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Map of Sudan showing project area circled.
range between 2 and 5 per cent although the actual sale of debt has been rare because of poor and declining economic prospects resulting from the costly civil war in the South and unfavourable economic policies which continue the stagnation of the manufacturing, agriculture and business sectors.

Debt-for-water swap
Against the background of worsening economic conditions and indebtedness on the economic front and dramatically improved drilling performance in the water sector, UNICEF saw scope for innovation. Both factors contributed significantly to making the swap possible as UNICEF had to convince both the government of Sudan and a commercial bank on the merits of the swap. If the economy of Sudan had been on the mend then commercial banks would have been less inclined to donate their debt, preferring to hold out for repayment or sale on the secondary market. Likewise the fact that the drilling programme had decisively improved performance, reduced costs per borehole and increased efficiency was another major attraction for the bank authorities since they were assured that their donation would be put to good use (see Figure 2 for cost and efficiency comparisons).

On the other hand it was not easy to secure government approval for the scheme, given the recent onslaught of non-government organization, environmental and business proposals for swaps which they had already received. Therefore, a successful drilling programme which not only met but exceeded agreed targets would be attractive to the government. Other factors which helped in the process of persuasion were UNICEF advocacy in not only the three books cited above, but also through conferences and press statements; endorsement by the IMF and World Bank of growth-oriented adjustment; UNICEF's legal position as an official UN agency; and finally the unique UNICEF National Committee network. The UK Committee for UNICEF is a registered charity and was very active in approaching, encouraging, negotiating and finalizing the Midland deal.

The benefits to Midland Bank for making the swap are straightforward. First, carrying bad debts on its books year after year with little or no prospect of repayment is a burden. Secondly, swapping their loan for development through UNICEF is good: intrinsically good as the proceeds contribute to the development process, and good for public relations.

The benefits to Sudan are equally transparent. First, their debt burden is reduced, and secondly, they pay only in local currency. The debt burden of Africa is more a result of a shortage of foreign exchange than local currency. This problem is quickly recognized when the annual balance of payments is analysed. In the case of Sudan, income from exports amounts to only about $600 million annually while the import bill is around $1,350 million. Equally the availability of funds for a national priority such as water is hampered by the debt burden, shortage of foreign exchange and recurrent costs. In this case UNICEF provides the foreign exchange component for water and sanitation while the Midland swap generates new local currency.

But the biggest winners in the debt for development swap are the rural people who benefit from improved water and sanitation. The funds used are truly additional to existing government or UNICEF resources. The project itself will be implemented in record time, in early 1989. Five thousand residents of rural Kordofan will benefit from:

- Twenty-five Hyati (India Mark 11) handpumps, including tools for maintenance.
- Two hundred VIP latrines.
- Ten village seedling nurseries, which will receive water from the handpump run-off.
- Ten village wood lots will be planted.

Ten village health committees will be formed to strengthen community participation in the project.

Success factors
It must be recognized that the success of this project is a major factor which gave UNICEF and the NRWC confidence to proceed and later convince the Ministry of Finance and Planning and the Bank of Sudan, as well as the Prime Minister, that the project was successful and worthy of further investment. While water and sanitation projects are popular, nonetheless, overall, the Water and Sanitation Decade (1980s) has failed. Therefore, it is important to recognize the factors which contribute to increased water and sanitation performance in Sudan supported by UNICEF.

Two of the most important factors are production bonuses to increase NRWC work output, and

![Figure 1. Total successful boreholes, Kordofan region, Sudan.](image-url)
community ownership of the handpumps (formerly the pumps remained government property, and consequently, maintenance was inadequate). Community ownership of handpumps leads more truly to community-based maintenance and repair.

A third factor designed to assure long-term project success is sufficient back-up handpump capacity to allow for handpump down time commensurate with the realities of rural Sudan. NRWC drills and installs more handpumps than are technically required within walking distance of each other to guarantee an uninterrupted supply of borehole water — even if a significant number of the handpumps are out of action at once. The NWRC policy ensures that there is always a back-up pump nearby. This allows the community to place their confidence in the pump. In practice, this means never sinking less than two boreholes in any community, even if it has fewer than 200 people, and drilling more boreholes than the prescribed one pump per 200 people. But this is accomplished quickly and efficiently with new high-speed drilling equipment, minimal time required for moving the rig from one site to another and payment of production bonuses.

This back-up capacity is very important. UNICEF's experience over the past decade indicates that when handpumps are spread too thinly (in response to either political pressure to provide water to a large number of communities or from the technical desire to install exactly the ratio of pumps to population with the goal of providing potable water to as many people as possible) the handpump has a greater risk of being discredited. Women grow frustrated if the queue is too long at the handpump, or if the pump breaks or is down for normal maintenance and repair, or if it breaks from constant use. NRWC now installs enough pumps in close proximity to provide back-up capacity and concentrates its drilling efforts to saturate a given area. The result: users are happy and the pumps are popular.

Other benefits

Handpump run-off water is used to irrigate small tree nurseries. The women in Kordofan have two principal needs: the first is potable
water, and the second is firewood. Kordofan experienced a drought in 1984-5 and deforestation is widespread in the northern part of the region. Tree nursery seedlings will be replanted on to community wood lots cared for by women. While this aspect of the project is still very recent, we feel it is important given the twin objectives of both improving the supply of safe water, and reducing the time women spend collecting it. If a handpump saves time which is then taken up by walking further and further to collect firewood in a deteriorating environment then no real gain would have been made.

The sanitation component of the project will see the construction of ventilated improved pit (VIP) latrines in each extended family compound. Figure 3 illustrates the increase in latrine construction which has been accomplished through payment of a small production bonus to government extension workers; replacement of expatriate staff with local Arabic-speaking professionals; experimentation with small cash payments to families who complete latrines to encourage self-help; and the sale of subsidized slabs and vent pipes. While the formation of a village-based health committee made up equally of men and women is a prerequisite to drilling, and one of their tasks is to promote latrines, nonetheless the latrine component has lagged behind drilling until recently.

The village health committee is provided — through training and a richly illustrated Hyati manual — with the technical capability to manage, maintain and repair their pump. Subsidized tools are purchased by the committee and spare parts sold at full cost to assure effective cost recovery. This system discourages corruption or misuse of funds, and creates accountability between the users and the NWRC for the occasional major breakdowns. Because the community owns the handpump and pays for spare parts, servicing and repairs, they can demand their money's worth and prompt service whenever a major repair is required.

Replicability

Overall, the 10 villages will be the real winners in this innovative debt-for-development swap. But all the parties — Midland Bank, the Government of Sudan and UNICEF — hope that this example will open the floodgates for further swaps. In the case of Sudan, the $2,000 million in commercially held debt could be transformed into enough local currency (at a discount, of course) which could be combined with a hard currency fund to meet import costs of a nationwide water and sanitation programme. This would make possible the old water Decade goal of providing safe water to every village by the year 2000.

This innovative debt-for-water development swap was made possible because of the success of the water programme in Sudan. This success has been built on good technical implementation and practical community participation which have generated confidence at all levels: from the village users to the district and regional administrators right up through the ranks of politicians and the top leadership of the country. UNICEF correctly judged the time to be right for new development initiatives because of the worsening economic situation in Africa. Finally, Midland Bank had confidence in both the project and in UNICEF.