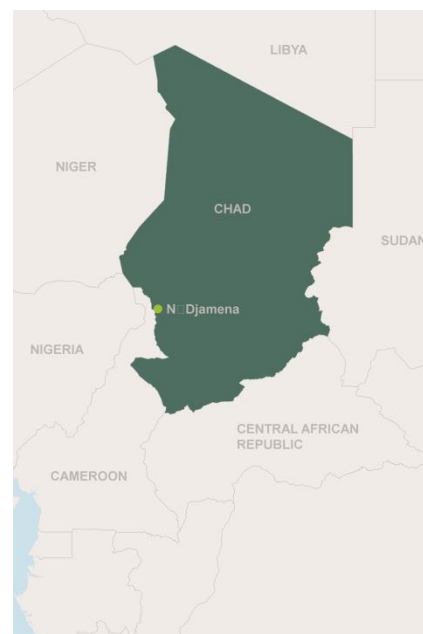


# Ex post evaluation – Chad

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**Sector:** Basic drinking water supply/sanitation (CRS Code 14030)  
**Programme/Project:** Rural water supply Mayo-Kebbi West (Investment: BMZ No. 2000 65 268\* and accompanying measure: BMZ No. 2003 70 015)  
**Implementing agency:** Ministère de l'Eau et l'Environnement: Direction de l'Approvisionnement en Eau et Assainissement



## Ex post evaluation report: 2015

		Project A (Planned)	Project A (Actual)	Project B (Planned)	Project B (Actual)
Investment costs (total)	EUR million	6.28	8.10	0.50	0.50
Counterpart contribution	EUR million	***1.30	****0.10	---	---
Funding	EUR million	4.98	**8.00	0.50	0.50
of which BMZ budget funds	EUR million	4.98	**8.00	0.50	0.50

\*) Projects in the 2014 random sample;  
 \*\*) incl. transfer from "Decentralised rural development" project (EUR 3 million);  
 \*\*\*) Contribution from Chadian government: 1.2 million / target group: EUR 0.1 million;  
 \*\*\*\*) estimate

**Summary:** New installation of 349 and rehabilitation of 53 drilled wells (planned: 220+) in the western part of the Mayo-Kebbi region (SW Chad) and equipping with hand pumps; additionally, as a pilot project, construction of up to 1000 latrines (design and supply of concrete slabs) with significant participation by local population; parallel hygiene campaign as well as creation of advisory service to user committees ("comité de gestion du point d'eau") principally for pump maintenance and operation (accompanying measure). Project implementation was demand-based and conditional on the formal establishment of a user association; furthermore, it required a counterpart contribution equivalent to 270 EUR/well from the beneficiaries and comprised a one-year post-implementation monitoring phase from 2010-11.

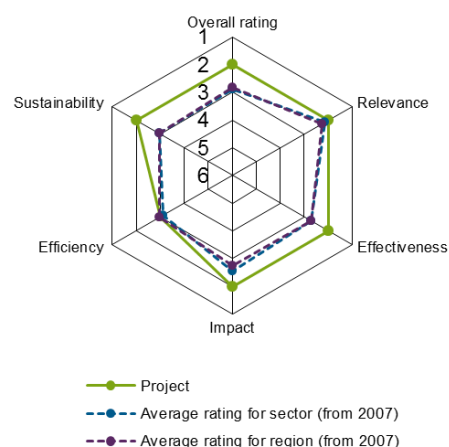
**Objectives:** The intended impact was to contribute towards improved living and especially hygiene and health conditions in the programme region. The programme objective (outcome) was to facilitate a hygienic and technically adequate use of drinking water wells by at least 66,000 people with an appropriate level of supply (> 20 l/person per day) and within a distance of no more than 1.5 km.

**Target group:** The rural population of the Mayo-Kebbi region – more than 70 % of whom are classified as poor – totalling over 100,000 people (plan: 66,000 – see above).

## Overall rating: 2

**Rationale:** Under the generally instable conditions and with the widespread lack of public services, the water supply component exceeded expectations in terms of success and broad impact; by contrast, the pilot sanitation component (roughly 5 % of the total volume) - classed as critical even at project appraisal - met with little enthusiasm and was ended prematurely. Three years after the end of the programme, 95 % to 98 % (target: 80 %) of the hand pumps are still operational - according to available information and random samples inspected; some of the wells are in operation for almost 9 years.

**Highlights:** As far as is known, the user committees are still functioning, and the vast majority are able to finance maintenance and repair expenses from their own resources. It is generally considered that the one-year post-implementation monitoring period proved helpful in this respect.



## Rating according to DAC criteria

### Overall rating: 2

#### Brief additional information on programme description

The project was designed as an individual sectoral FC project and was implemented accordingly from 2004 onward. When setting up the joint TC/FC programme structure ("Cooperative Programme: Decentralised Rural Development DRD in the regions of Mayo-Kebbi and Ouaddai-Biltine", 2006) this programme was formally included in the newly created; at the same time it continued to be implemented in accordance with the originally designed modalities – i.e. as a largely independent intervention. In light of the significant demand for drinking water wells, as presented in the final inspection report from 30 August 2011 and in the EPE Report on "CP-DLE Mayo-Kebbi and Ouaddai-Biltine" from 5 December 2014, the sum of EUR 3 million was employed from the DRD programme for this project.

#### Evaluation of project using DAC criteria

The main component of water supply exceeded expectations in terms of success and broad-scale impact; by contrast, the pilot component of sanitation (building latrines, roughly 5 % of the total volume) met with little enthusiasm from the target group and was ended prematurely. The well installations are largely in a good state of repair; the user committees are in place and still operational as far as is known; for the most part, they are able to finance maintenance and repair expenditure from their own resources.

#### Relevance

From today's perspective, an improved drinking water supply and sanitation services operated largely by the users alone is still relevant - particularly in poor rural areas that tend to be poorly served. In the case of Chad, This applies all the more so given that the chronically instable situation is evident particularly in more remote regions suffering from a widespread lack of public services. The focus also corresponded to the German priority cooperation area with Chad, redefined in 2006 as "Decentralised rural development". In principle, a demand-based approach in water supply is sound as are the two conditions of support (1) "Existence or establishment of user committees" and (2) "Conclusion of maintenance contracts with suitably qualified pump mechanics prior to project launch". However, with the investment contributions set as additional funding requirements (the equivalent of 270 EUR/well) it became clear that – depending on the season – demanding even relatively small contributions could push at least parts of the largely subsistence-oriented population to the limits of their financial means. The "latrine construction" pilot component was not conceived on a demand basis (in contrast to the drinking water wells) and is more likely to have emerged from the consistent application of valid sectoral principles at the time ("no water supply without sanitation component"). Reservations were expressed at appraisal as to how much this component would correspond to the local population's actual problem perception and awareness of, especially since population density in the programme region is low and groundwater levels are only found at a depth of more than 30 m. In addition, the sanitation concept called for a relatively high level of beneficiaries' contributions, both during the installation and even more so during the operating phase. Consequently, the majority of the beneficiaries felt overwhelmed, understandably so in retrospect. With the purpose of concentrating on the target group's priority intervention of "drinking water", the subsequent decision to prematurely terminate the sanitation component can be considered logical. From today's perspective it is not clear how intensively the feasibility aspect under the prevailing conditions was examined– and to what extent design and implementation could have been shaped with requiring lower efforts by the target group.

As undisputed as the relevance of better water supply may be from the beneficiaries' perspective, this aspect appears far more ambiguous as far as the responsible public authorities – barely present on a local scale – are concerned: declamatory statements underline the significance on the one hand, while everyday practices suggest at least negligence or disinterest on the other: amongst others, this is borne out by the tolerance of a variety of hand pump types from different donors (with varying maintenance and spare part stocking requirements, etc.), the low level of effort (at best) to coordinate donor interventions in the sector, and the lack of willingness to provide counterpart contributions.

Overall, the relevance is still rated as good.

**Relevance rating: 2**

### Effectiveness

Achievement of outcomes was to be measured as follows: (a) three years after handover to the user committees, more than 80 % of the drinking water wells are operational as well as properly operated – from a hygiene perspective, too – and maintained, as and if required; (b) more than 80 % of the user committees should always have the equivalent of just under EUR 40 in cash (or crops that can be sold quickly) to be able to finance any repairs that arise. These indicators have been met, and over 90 % of the wells seem to be operational according to random tests carried out locally and other surveys; by and large, the funds held by the user committees are also clearly in line with requirements. Whilst routinely collecting contributions without any recognisable cause seems to present difficulties from time to time, no cases were reported where necessary work could ultimately not be carried out on the initiative of the beneficiaries. Given the dominance of subsistence-based livelihoods and the lack of cash, it also appears worth while to discuss the feasibility and adequacy of requiring user committees to have cash available at any time – as long as necessary maintenance and repair work is carried out on a timely basis.

It should be noted that – over and above the 220 planned drinking water wells – a total of 349 wells were newly installed and another 53 were rehabilitated. This has benefited a population of at least 100,000 people (original target: 66,000). Those residents collect roughly 20 litres of good quality drinking water per person – according to available information – from a distance of less than 1.5 km (reportedly, most distances are 500 metres or less). One criticism is that more detailed information on the quality of water is not available, nor was any respective information collected during implementation. The measures were executed with the beneficiaries contributing financially – usually equivalent to 270 EUR/well.

Most of the functional hand pumps and their superstructures are in a good or acceptable condition; around 20 % of the wells are protected with measures implemented voluntarily. In some cases, the drain lines to the seepage shafts got damaged, and frequently the shafts are not emptied regularly enough. Since most of the wells are situated on higher ground with natural run-off, they are generally hygienically safe. The situation regarding hygiene during transport and storage of drinking water presents a mixed picture (as at the final inspection). It would appear, nonetheless, that sufficiently hygienic conditions are prevailing, at least based on impressions gained during the 2014 survey. It should be noted here that use of "traditional" water sources (open wells, water bodies) is still widespread for non-drinking water needs.

Ten of the eleven hand pump craftsmen trained in the programme are still active (one has meanwhile passed away). Therefore, in principle there should be sufficient support available. Worn bearings are responsible for almost all of the damage that occurs; however, those bearings are rarely replaced with original spare parts, and more often by imitations. Generally speaking, many committees are only willing to carry out repairs in the event of significant damage, which usually results in more expensive repairs than would otherwise been the case (i.e. when reacting early on). Mechanical parts located above ground are not regularly lubricated at all sites, which increases susceptibility to repairs. Information suggests that the spare parts supply from the four stores set up via the programme is adequate.

Overall, effectiveness is rated as good

**Effectiveness rating: 2**

### Efficiency

In terms of production efficiency, relatively favourable unit costs were achieved despite the sharp increase in construction costs countrywide over the last 15 years, particularly in rural areas; consulting expenses stand at a good 33 % and were only marginally higher than projected at appraisal, where increased advisory requirements were already expected.

In terms of allocation efficiency, the results of a target group survey in 2011 are remarkable: they show that - before or without the programme - spending on the treatment of water-borne diseases amounted to the equivalent of EUR 0.80 on average per person and per month. This is no longer the case with a functional supply of drinking water. By contrast, monthly operating costs for water supply amount to EUR 0.15

– 0.20 per person. From an efficiency perspective it is unclear whether the programme's requirement of depositing cash for keeping a maintenance budget (see Effectiveness above) makes sense in an environment where cash is a very scarce resource and fraught with relatively high opportunity costs.

All told, efficiency is rated as satisfactory.

**Efficiency rating: 3**

### Impact

The intended contribution towards improved living conditions is likely to have been achieved at least in the main areas, particularly due to much better drinking water quality. This can also be inferred from the 2011 target group survey mentioned above. In terms of health care, declining treatment costs should be noted (see "Efficiency" above); since the establishment of the wells and up until the last outbreak of cholera (in 2<sup>nd</sup> half of 2014) there were evidently no cases of cholera in the "well villages" – in contrast to other places without newly installed wells. Since the guinea worm's re-emergence in Chad in 2010, there have been no indications of any cases in Mayo-Kebbi, in contrast to other parts of the country.

In spite of public administration barely being present in rural areas of Chad – not least owing to the unstable political climate – the programme succeeded in securing a significant element of livelihood improvement. In this context the project can be considered to have made a structural contribution towards improved (self-)organisation among the population, as the user committees continue to carry out their tasks several years after the end of the programme. The project has also aided gender equality now that the – previously negligible – ratio of women in relevant committees and bodies lies between 25 % and 40 %.

Good impacts have been observed overall, similarly to the effectiveness rating.

**Impact rating: 2**

### Sustainability

After several years of operation, prospects for sustainability continue to appear favourable. This assessment is based on the good condition of most hand pumps, ensured maintenance and repairs by local craftsmen in case of need, the reportedly reliable supply of spare parts through four retailers as well as the ability and willingness of the vast majority of committees to collect money (more or less regularly) for repairs and maintenance. What should be noted, though, is that the number of large repairs has been limited so far; with age and wear most likely taking an increased toll, higher expenses are to be expected in the future.

Lack of commitment from the public sector's side is likely to continue, but we do not expect this to markedly impair the long-term prospects in this case. Consequently, sustainability can be rated as good overall.

**Sustainability rating: 2**

### Notes on the methods used to evaluate project success (project rating)

Projects (and programmes) are evaluated on a six-point scale, the criteria being **relevance, effectiveness, efficiency** and **overarching developmental impact**. The ratings are also used to arrive at a **final assessment** of a project's overall developmental efficacy. The scale is as follows:

<b>Level 1</b>	Very good result that clearly exceeds expectations
<b>Level 2</b>	Good result, fully in line with expectations and without any significant shortcomings
<b>Level 3</b>	Satisfactory result – project falls short of expectations but the positive results dominate
<b>Level 4</b>	Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results
<b>Level 5</b>	Clearly inadequate result – despite some positive partial results, the negative results clearly dominate
<b>Level 6</b>	The project has no impact or the situation has actually deteriorated

Rating levels 1-3 denote a positive assessment or successful project while rating levels 4-6 denote a negative assessment.

### Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability): The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability): The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected).

Sustainability level 3 (satisfactory sustainability): The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability): The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and is very unlikely to improve. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The **overall rating** on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. Rating levels 1-3 of the overall rating denote a "successful" project while rating levels 4-6 denote an "unsuccessful" project. It should be noted that a project can generally be considered developmentally "successful" only if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are rated at least "satisfactory" (level 3).