

Ex Post-Evaluation Brief

Uzbekistan: Programme to Combat Tuberculosis, Phase II



| | | |
|---|--|--------------------------------------|
| Sector | Health (CRS 12263) | |
| Programme/Client | Programme to Combat Tuberculosis, Phase II, (BMZ No.: 2000 66 522) | |
| Programme executing agency | Ministry of Public Health, the Republic of Uzbekistan | |
| Year of sample/ex post evaluation report: 2012*/2012 | | |
| | Appraisal (planned) | Ex post-evaluation (actual) |
| Investment costs (total) | EUR 2.94 million | EUR 2.86 million |
| Counterpart contribution (company) | EUR 0.38 million | EUR 0.40 million |
| Funding, of which budget funds (BMZ) | EUR 2.56 million EUR 2.56 million | EUR 2.46 million EUR 2.46 million |

* random sample

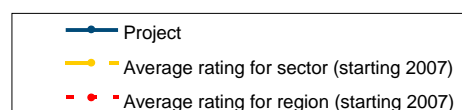
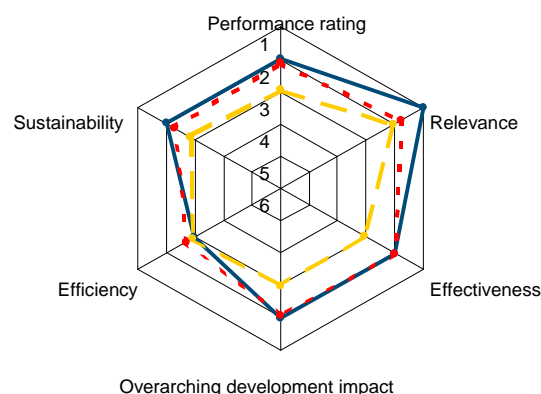
Project description: The Programme to Combat Tuberculosis Phase II (TB II) underwent project appraisal in 2001 and was implemented between 2002 and the beginning of 2007. TB II aimed to improve the diagnosis and treatment of the various forms of TB by introducing the DOTS strategy (Directly Observed Treatment, Short Course). The programme concentrated on the provinces of Bukhara, Kashkadarya and Surkhandarya and included prison inmates in these provinces. Prisoners in the provinces of Karakalpakstan and Khorezm were also included. These last two provinces comprised the programme regions of TB I; however, it was not possible to cover their prisons under this programme. In addition, diagnostic capacity was established at a national level (a national reference laboratory in Tashkent); training at, and oversight of, this establishment is managed by the supranational reference laboratory at Gauting in Germany, as part of a town twinning agreement.

Objective: The overall objective was to reduce the burden of TB in the three programme regions (overall objective indicator: a fall in the mortality rate due to TB). The programme objective was to improve the diagnosis and treatment of the various forms of TB (programme objective indicators: the number of registered cases of TB, the proportion of patients undergoing repeat treatment (the re-treatment rate) and the cure rate (DOTS treatment success)).

Target group: The programme appraisal report neglected to identify an explicit target group. However, it did provide an estimate of the number of cases to be treated over the duration of the programme (approx. 25,000 patients with TB). Between 2004 and 2007, the actual number of patients treated was approx.17,600.

Overall rating: On the basis of presentations, discussions, interviews, and site visits, and from an assessment of studies and statistics, the KfW mission judges the developmental impact of this programme to be substantial. This assessment is based in particular on the establishment of modern facilities for diagnosis and treatment. Both elements have contributed to an improved understanding of the TB situation and of the costs - financial, social and psychological - of this disease and its treatment. **The overall rating for ex post evaluation of this programme is "good" (Rating: 2).**

Rating by DAC criteria



EVALUATION SUMMARY

Overall rating: The overall rating for ex post evaluation of this programme is “good” (Rating: 2).

Relevance: At the start of the 1990s, poverty, malnourishment and the economic crisis led to a situation whereby Uzbekistan could no longer maintain the Soviet system of social support nor the system for controlling TB. As a result TB infections rose sharply, from approx. 9,000 registered cases at the end of the 80s to more than 20,000 cases in 2002. By the time this programme underwent appraisal, TB was endemic in the country. Modern treatment methods were only being used under a pilot project being implemented by the aid organisation Médecins sans Frontières (MSF) in the Republic of Karakalpakstan. The programme planned to contribute to improving the diagnosis and treatment of TB - and ultimately to contain the disease - by supplying anti-TB drugs and laboratory facilities (financed by FC), and by expanding the national DOTS centre and the national reference laboratory, and by providing training for medical staff (financed by a counterpart contribution). This results chain was plausible and still remains so. The control of TB has been a priority of the Government of Uzbekistan, both at the time of programme appraisal and today. At the same time, support for the Uzbek health sector is a priority area within German-Uzbek cooperation. The TB II programme objective is in conformity with MDG 6 (combating HIV/AIDS, malaria and tuberculosis) and with the resolution of the World Health Assembly of May 2000 (which approved the DOTS strategy and its introduction into the territories under its remit, with the objective of achieving 100% coverage). In addition to German FC, the Uzbekistan national TB control programme was supported by other donors such as The Global Fund to Fight AIDS, Tuberculosis and Malaria (“Global Fund”), USAID and MSF. The efforts of the various donors were coordinated by the Uzbek Ministry of Health, which took its monitoring and control function very seriously. In summary, we have assessed the programme’s relevance as very good (Rating: 1).

Effectiveness: The programme objective envisaged an improvement in the diagnosis and treatment of the various forms of tuberculosis. During implementation, the following indicators were used to measure progress against the programme objective: (1) *the DOTS case detection rate*; and (2) *the DOTS treatment success rate*. The formulation of the programme objective remains appropriate today. However, the case detection rate is no longer in worldwide use as an indicator. An alternative solution for measuring effectiveness is to use the number of registered cases of TB together with the proportion of patients in the programme regions that have to undergo repeat treatment (*re-treatment*) as indicators.

Between 2003 and 2010 the rate of registered cases of TB fell markedly in all three programme regions, as can be seen from the following table.

| Year | Rate of registered cases of TB * | | |
|--------------|----------------------------------|------|------|
| | 2003 | 2007 | 2010 |
| Region | | | |
| Bukhara | 61 | 51 | 45 |
| Kashkadarya | 98 | 67 | 59 |
| Surkhandarya | 68 | 57 | 43 |

* Per 100,000 inhabitants

The *re-treatment rate* fell from 30% in 2005 to 17% in 2010 (no figures are available for the period prior to 2005). At the time of programme appraisal, the *DOTS treatment success rate* (the cure rate) for Uzbekistan as a whole was 76%; in 2009 it was 81%.¹ Within the three programme regions, in 2010 this rate was 87%. Multi-drug-resistant forms of TB (MDR-TB) constitute a major challenge. The occurrence of MDR-TB in Uzbekistan was confirmed during a pilot project that was implemented by MSF for the purpose of identifying and treating MDR-TB, a project which has been running in the autonomous republic of Karakalpakstan since 2003. A 2006 study carried out in Tashkent has shown that over 14% of newly identified infections and 60% of *re-treatment* cases feature a multi-drug-resistant form of TB. The number of cases of MDR-TB in Uzbekistan as a whole is currently estimated at 14,000. Nevertheless, considering the fall in the rate of registered cases of TB as well as in the *re-treatment rate*, taken together with the positive progress seen in the cure rate, we have assessed the programme's effectiveness as good (Rating: 2).

Efficiency: Programme duration was six months longer than originally planned. At programme appraisal, the cost of administering treatment in line with the DOTS strategy was estimated at roughly USD 200 per patient; actual costs presently stand at just over USD 400. However, these treatment costs are still significantly lower than those incurred under traditional treatments with medication and lengthy stays in hospital (roughly USD 550 at programme appraisal, no new data available). Inspections carried out on a random sampling basis during the evaluation showed that the equipment, facilities and vehicles supplied were in excellent condition.² At the regional level, storage arrangements for medications and laboratory consumables are satisfactory. Adequate supplies of medication were available over the course of the programme; no shortages were reported. The programme introduced the DOTS strategy, which allows TB patients to be treated as outpatients in basic healthcare facilities close to their place of residence. The DOTS therapy eliminates the need for repeated preventative treatments and lengthy hospital stays, and thereby increases the efficiency of TB treatment. In addition, a comparatively

¹ The DOTS strategy was introduced in Uzbekistan progressively, with donor support. Through this process, the DOTS coverage rate has risen from 1% in 1998 and 37% in 2001 to 100% from 2005 on.

² The propriety of the programme's use of funds was evaluated as part of the final review. This gave no cause for concern.

simple system was introduced for the reporting of diagnosis and treatment. However, the mission identified that the new DOTS reporting system is being used in parallel with the traditional system for registering and reporting individual cases of TB. This frequently leads to confusion and is very labour-intensive. Furthermore, to date the advantages of the DOTS system are still not being fully utilised by the Uzbek government's national TB control programme. Hence the mission identified that, although in most cases the entire course of TB treatment could be administered on an outpatient basis, this generally did not begin until after the two-month intensive treatment phase had been completed at the hospital, on an inpatient basis. The efficiency of the TB control programme could be significantly increased - without compromising treatment success - just by reducing time spent in hospital by TB patients during the intensive phase of treatment. In summary, we have assessed the programme's efficiency as satisfactory (Rating 3).

Overarching developmental impact: The programme aimed to reduce the burden of disease caused by TB in the three programme regions. This was to be measured by the reduction in the incidence of TB and in the mortality rate from TB. Due to methodological challenges the incidence rate is no longer recommended by the WHO as an overall objective indicator. In evaluating overall objective attainment, this evaluation has therefore confined itself to an assessment of TB mortality. With regard to the mortality rate, marked improvements are evident in the three programme provinces, as can be seen from the following table.

| | Mortality rates | | |
|--------------|-----------------|------|------|
| Year | 2003 | 2007 | 2010 |
| Region | | | |
| Bukhara | 7.8 | 4.6 | 3.6 |
| Kashkadarya | 4.5 | 2.7 | 3.3 |
| Surkhandarya | 8.5 | 3.5 | 3.1 |

From today's perspective, the introduction and implementation of the DOTS strategy represents the first step towards an evidence-based methodology for medical treatments and strategies, which is leading to a significant reduction in the burden of this disease. However, this will not in itself suffice to contain the TB epidemic decisively. That requires the nationwide introduction of the Stop TB strategy³, including the diagnosis and treatment of MDR-TB cases. Although at the time of programme appraisal knowledge of the TB situation in Uzbekistan was limited, the phased introduction and implementation of modern methods of TB treatment into an adequately sized region (the three programme provinces) has laid the foundation for a modern, needs-based, responsive system of TB control. Without this groundwork, the identification and treatment of multi-drug-resistant forms of TB – which are just beginning to appear in the pro-

³ The Stop TB strategy comprises six components: 1) Enhancing and expanding the DOTS strategy; 2) Addressing TB-HIV coinfection, MDR-TB, and the needs of poor population groups; 3) Improving systems of primary healthcare; 4) Engaging all care providers; 5) Empowering people with TB; and 6) Strengthening research into TB.

gramme region – would not have been possible. We have therefore assessed the programme's overarching developmental impact as good (Rating: 2).

Sustainability: Since the laboratory equipment and vehicles are in good condition and very well maintained, the continued operation of these facilities over the next few years may well be assured. Hence the infrastructure needed for continuing to control TB is in place. Quality control at the national reference laboratory is guaranteed under the town twinning arrangement with Gauting (near Munich). After the programme ended, the supply of the required TB medication was taken over in 2008 by the Global Fund. In terms of the provision of medication for drug-susceptible TB (1st line TB medication), the programme is sustainable. Even if the Global Fund were to stop supplying, we believe it is reasonable to assume that the Uzbek government would be able to purchase medication using its own funding resources. The mission's view here is based on the rationalisation of the entire system for TB control which is envisaged in the Uzbek government's recently adopted 5-year plan for controlling TB. Facilities to diagnose MDR-TB (the diagnostic capability established under this programme and operational from August 2007 onwards) were not available until after the TB II programme was completed. Subsequent FC programmes in the area of TB are taking up the fight against MDR-TB in an appropriate fashion. Work began at the end of last year to extend diagnostic facilities for identifying MDR-TB into two further provinces (Tashkent and Surkhandarya, this latter province being one of the regions covered by the TB II programme). Although MDR-TB constitutes a widespread threat, the sustainability of the programme under evaluation, considered separately, is assessed as good (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:

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

Ratings 1-3 denote a positive or successful assessment while ratings 4-6 denote a not positive or unsuccessful 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. Ratings 1-3 of the overall rating denote a "successful" project while ratings 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" (rating 3).