

Ex Post-Evaluation Brief

India: Polio Immunisation Programme, Phases I to VII



Programme/Client	Polio Immunisation Programme Phases I – VII (1996 66 140; 1999 65 906; 2000 65 581; 2002 66 213; 2002 66 858; 2003 66 724; 2004 65 369) Random sample: Yes (Phases I, IV, V and VI)	
Programme executing agency	Ministry of Health and Family Welfare (MoHFW) of the Republic of India	
Year of sample/ex post evaluation report: 2010*/2011		
	Appraisal (planned)	Ex post-evaluation (actual)
Investment costs (total)	EUR 1.09 billion	EUR 1.09 billion
Counterpart contribution (company)	EUR 0.32 billion	EUR 0.32 billion
Funding, of which budget funds (BMZ)	EUR 77.80 million	EUR 77.80 million

* random sample

Project description German FC (Financial Cooperation) has been supporting the Republic of India in polio eradication efforts since 1996. These polio immunisation programmes encompass: the procurement of oral polio vaccine and its distribution to the Indian Federal States; administering the vaccine, both under a routine immunisation programme and in separate mass immunisation drives; supporting public information and awareness-raising campaigns; and the maintenance and expansion of a nationwide polio monitoring system in line with standards set by the World Health Organization (WHO). The FC contribution was primarily used to procure oral polio vaccine and provide refrigeration equipment to safeguard the vaccine cold chain. Phases I – VII are comparable in their conceptual design. Ex post evaluation and assessment were therefore conducted jointly across all phases.

Objective: The overall developmental objective of the programme was to contribute to the national, and indirectly to the worldwide, eradication of poliomyelitis (the impact). The target date for eradication was adjusted several times in the process. Expectations at the start of the programme were clearly too high. The aim of the programme was to vaccinate all children under the age of five throughout the country during the 1998-2006 immunisation campaigns (the outcome). Despite its weaknesses, the assumed results chain is, by and large, reasonable: the vaccination of every last child (the outcome) will halt the spread of the wild polio virus (the impact). Eradicating polio in India will remove this disease burden, thereby obviating treatment costs and eliminating loss of income (the impact). **Target group:** All Indian children under the age of five.

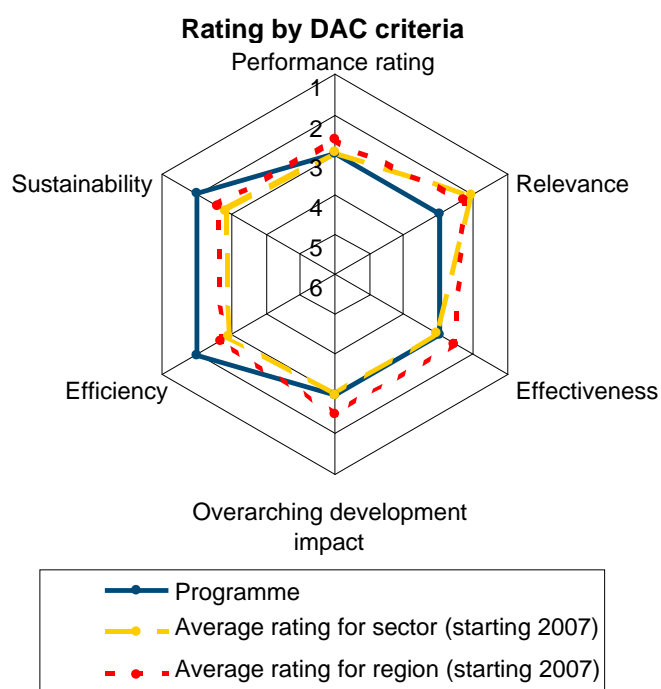
Overall rating: 3

The ambitious objective of total eradication was missed by a narrow margin. Good efficiency and sustainability were achieved.

Of note:

Notwithstanding the need for efficient service provision, integrating the vertical programme structure into the health system at an early stage makes good sense, as it ensures that the established structures for planning, monitoring and communication will remain useful once the programme has come to an end.

Contrary to current practice at the time of programme appraisal, social factors that have a bearing on immunisation, such as hygiene and nutrition, are nowadays taken into account when making conceptual and strategic programme decisions.



EVALUATION SUMMARY

Overall rating: Given that the overall objectives and programme objectives were missed by only a narrow margin, and that satisfactory relevance and good sustainability have both been achieved in a programme that was logistically challenging to implement, and also taking into consideration the positive net effects achieved in general by this programme, it has been awarded an overall rating of satisfactory. **Rating: 3**

Relevance: The relevance of the programme must be considered on a number of different levels. At an international level, the relevance of the Polio Immunisation Programme for the Republic of India stems from the overarching international developmental goal of eradicating polio. In terms of global public good, this is to be seen as on a par with the eradication of smallpox. At the ex post evaluation India is still classified as a polio-endemic country; with this in view, it can reasonably be considered that the problem was correctly identified and the programme fully justified. Based on the existing international commitment to the eradication of polio, the programme was and still remains a priority in Indian public health policy. This leads to a positive assessment of its relevance and leads to the programme's congruence with BMZ objectives and guidelines, both at programme appraisal and at the time of the ex post evaluation.

Its relevance, however, is to be seen in relation to the health priorities of the target group. Given the prevalence and disease burden of other childhood illnesses (e. g. measles and whooping cough) and in view of the basic health problems that exist in India, the goal of eradicating polio has a somewhat lower priority for the immediate target group. These circumstances weaken the relevance of the programme.

The results chain underlying the project is largely reasonable; however, some weaknesses are evident in its overemphasis of technical factors. According to the results chain, the vaccination of every last child (the outcome) will halt the spread of the wild polio virus (the impact). Polio eradication in India will remove this disease burden, obviating treatment costs and eliminating loss of income. This results chain assumes a direct link between vaccination and immunisation, but it neglects the social factors of vaccine efficacy and disease transmission. As a consequence, the programme is too narrow in its design. The programme concept at the time of programme appraisal met the global guidelines of the Global Polio Eradication Initiative, which have proved effective in other geographical regions (e. g. in Latin America and China). However, these no longer reflect current best practice, and this weakens the relevance of Phases I-VII of the project. Since the health system in India has major shortcomings, the programme format that was selected - a vertical structure, designed for the efficient supply of polio vaccine - was deemed generally appropriate for the intended purpose of covering all children under the age of five (Sub-Rating: 3).

Effectiveness: The programme objective of Phases I-VII is the intensive, nationwide vaccination of all children in India under the age of five, in order to halt the spread of the wild polio virus. The programme appraisal reports specified the following as programme objective indicators: (a) a vaccination rate of 95% of all children under the age of five (Phase I: 90%); (b) a continuing decline in polio incidence, as defined by the number of cases reported; and consequently (c) a reduction in the number of polio-endemic districts. It should be noted here that indicators (b) and (c) form part of the overall objective. They are used to assess the overarching developmental effects. The indicator (a) of a vaccination rate of 95% of all children under the age of five was specified in order to achieve a minimum rate of 95% in all districts and high-risk areas. Furthermore, the time frame for the achievement of targets for all phases was re-set from the originally specified year 2000 (Phase I) to 2008 (Phase VII).

With regard to the vaccination rate achieved in the polio immunisation campaigns, several academic assessments and evaluations carried out within the programme attest to high overall immunisation rates, in the region of the figure of 95% reported. However, these studies also show that during the period 1998-2006, in the remaining high-risk districts and regions often 10% or more of the target group were not vaccinated. (Approximately 25% of the Indian population live in the remaining endemic states of Uttar Pradesh and Bihar.) Overall this has been assessed as Sub-Rating: 3.

Efficiency: At USD 0.17 per vaccinated child, India has relatively low operational costs when compared to other countries with cases of polio. Furthermore, in 2010 the cost per case of acute flaccid paralysis in India was the lowest of all countries. Measured against these indicators, the results achieved in relation to the use of resources, in terms of production efficiency, can be assessed as positive. However, it should be noted that existing estimates for the total cost per vaccination (including health sector staff labour costs for the planning and implementation of immunisation campaigns) are somewhat inadequate, so the evaluation of production efficiency contains a certain degree of uncertainty.

No data exists to allow for an evaluation of allocative efficiency. From a macroeconomic viewpoint, several sources attribute a high cost-benefit ratio to the eradication of polio, with the results only being seen following the successful eradication of the disease. In contrast to this, the arguments cited under Relevance suggest that the eradication of poliomyelitis is not unquestionably the best possible allocation of resources to improve the basic health of children in India, as it does not deliver wide-ranging effects.

Efficiency of implementation can be seen as good overall, especially in relation to the possibility of implementing the programme through the regular channels of the health system. The programmes ran largely according to plan; resources, including refrigeration equipment, were generally supplied on time; the monitoring and reporting system met WHO standards; and experiences with the procurement of vaccine through UNICEF (despite the move to RITES as the buying agent in 2010) were largely positive.

Based on the good level of efficiency achieved in production and implementation, and given the limited scope for evaluating allocative efficiency, we award Sub-Rating: 2.

Overarching developmental impact: The overall objective of Phases I-VII was to make a contribution to the national and worldwide eradication of polio. At the start of the nationwide vaccination campaign (1994) it was envisaged that this would have been achieved by 2000 (overall objective of Phase I). This expectation was clearly too high. Therefore, in the course of implementation of the immunisation programme, the target date was adjusted (Phase VII, 2008). For the purpose of the ex post evaluation, this last figure is used, presuming a total period of 15 years for the achievement of the objective (1994-2008).

The overall objective indicator identified at programme appraisal (all phases) of WHO certification of India as a polio-free country no longer reflects current thinking. The programme objective indicators (b) and (c) above - which identified a reduction in the number of polio cases and polio-endemic districts - can here be seen as modified indicators for the overall objective.

The number of registered polio cases does not demonstrate conclusive success. Even though at the time of the ex post evaluation only one case of wild polio virus was reported in 2011, there were also outbreaks of polio following programme Phases I-VII (e.g. 2009: 714 cases). It is therefore still not possible at present to make a statement about whether the disease has really been eradicated in India. This first overall objective indicator (former programme objective indicator b) is therefore deemed not to have been met – despite the extended target date.

Since polio eradication efforts are now concentrated on the endemic states of Uttar Pradesh and Bihar with their 107 high-risk blocks, it has been possible to establish that the 'reservoirs' of wild polio virus have been restricted to significantly fewer districts. This means the second overall objective indicator (former programme indicator c) has been met.

Since Phases I-VII have made a positive contribution to the fight against polio, but the results achieved have not shown any continuous improvement and polio transmission has still not been halted beyond question, we find that the overall objective has been missed by a narrow margin.

The Polio Immunisation Programme has had an indirect effect on India's routine vaccination programme in particular. Positive effects have come in the form of a more highly developed cold chain, an increase in demand for health services from patients, and an improvement in the planning processes of the routine immunisation programme. These indirect synergistic effects stand in contrast to the programme's negative and unintended side effects. The prolonged intensity of the Polio immunisation Programme is having a 'crowding-out' effect, interfering with the capacity of the routine immunisation programme to provide vaccinations and thereby meet demand, especially in regions in which more intensive

polio immunisation campaigns have been carried out. Given the chronic lack of financial and personal resources in the Indian public health system, the scope of the measures undertaken must therefore be examined critically, even though they are integral to the existing concept of the programme. The positive effects, nevertheless, outweigh any others. Taken overall, we therefore award Sub-Rating: 3.

Sustainability: The Ministry of Health has demonstrated that it is determined and able to maintain polio eradication efforts. At present the programme is funded almost exclusively by the project executing agency. Over the course of the programme, its scope has been expanded. In addition, the Polio Immunisation Programme, as indicated above, enjoys priority in Indian health policy. However, at this stage, the extent to which use will be made of the established planning, monitoring, and mobilisation capacities of the 'Social Mobilisation Network' and the 'National Polio Surveillance Project' by the Indian health system, on completion of the programme, can still not be predicted with any reliability. Taken overall we evaluate the sustainability of the project as good (Sub-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).