

## The Millennium Villages Project: Was it cost-effective?

**This Briefing Paper is the third in a series to communicate key points from the independent impact evaluation of the Millennium Villages Project (MVP). The MVP aimed to demonstrate that rural Africa could address poverty and achieve the Millennium Development Goals (MDGs) through low-cost, science-based interventions at the village level.**

This mixed method impact evaluation of one MVP site in Northern Ghana took place over more than five years. The evaluation consisted of a statistically representative survey of over 2,000 households within 35 villages in the project site and 68 comparison villages. It also included three longitudinal qualitative studies that collected evidence on institutional change, a range of welfare measures and local perspectives (see MVP Briefing Paper 8). Undertaken by Itad, the Institute of Development Studies (IDS) and Participatory Development Associates Ltd (PDA Ghana) and commissioned by DFID, it is anticipated that the findings will be of interest to a wide range of people in the development sector.

### Millennium Villages Project

Beginning in 2005, the MVP aimed to overcome the 'poverty trap' facing some countries by applying an integrated strategy for health care, nutrition, education, water supply and sanitation, infrastructure, agriculture and small business in clusters of villages. The idea was to achieve the MDGs by undertaking simultaneous investments, rather than the usual sectoral or step-by-step efforts. The synergies from these multiple interventions were intended to have a greater impact than that of separate interventions.

By 2016, the project had been implemented in 14 different sites in 10 African countries, reaching approximately half a million people in 79 villages. The MVP sites cover different agro-ecological zones and together represent farming systems used by 90% of the agricultural population of sub-Saharan Africa.

### Cost-effectiveness analysis of the MVP

This Briefing Paper is about the cost-effectiveness analysis (CEA) that was conducted as part of the evaluation process. Few studies even attempt to do a CEA of complex interventions such as the MVP, as demonstrated in a systematic review undertaken by the evaluation team.<sup>1</sup> Challenges around lack of comparability, the complexity and scale of interrelated interventions, and assessing long-term impact beyond the life of the project mean the CEA therefore has certain inevitable limitations. Nevertheless, it is possible to draw some conclusions.

#### The CEA methodology

The CEA investigated whether the impact due to the MVP was good value for money. The MVP had multiple goals, which can be reduced to three core goals (around increased incomes to address poverty, health and educational improvements). All three goals are intertwined, with the aim to have a greater effect through synergy. For example, better incomes provide better nutrition, leading to improved health, which in turn leads to lower absenteeism from the workplace and school. Education can also become cheaper for families through the provision of low-cost educational materials, while rising family incomes reduce the need for child labour and increase the relative returns for schooling.

As no direct comparison with another complex project was available, the evaluation strategy was to assess value for money based on the following hypothesis: *If the synergy effects of the MVP are real and significant, we should expect higher value for money from our disaggregated 'sector CEAs' of the MVP compared with the other single-sector interventions.* The cost-effectiveness of the MVP is presented as cost-consequence analysis.

<sup>1</sup> Masset, E. et al. (2018) 'Systematic reviews of cost-effectiveness in low and middle-income countries: a review of reviews', *Journal of Development Effectiveness* 10.1: 95–120.

## The MVP in Northern Ghana

From 2012–16, the £11 million MVP (approx. US\$14 million) in Northern Ghana targeted a cluster of 35 villages of up to 30,000 people in the West Mamprusi, Mamprugu Moagduri and Builsa South districts. This is an area of extreme poverty, with 80–90% of the population living below the national poverty line. The project was spearheaded by the Earth Institute (Columbia University), with operations overseen by the Millennium Promise and the Savannah Accelerated Development Authority (SADA), a semi-autonomous Government of Ghana agency.

### Key messages drawn from the CEA

- ▶ The total expenditure on the MVP in Northern Ghana between 2012 and 2016 amounts to US\$15.3 million, when discounted to the year 2012 and accounting for the time when goods are used (not just purchased). Health and infrastructure were the largest sectors in terms of project spend, with management and overheads accounting for around a third of the total. The cost per capita was US\$360 in 2012 present value terms, or US\$88 per capita per annum.
- ▶ Across the key impact areas of income, health and education, the MVP compares unfavourably with other projects in terms of the cost-effectiveness of service delivery. The returns to investment in education appear to be highest, although it is believed that similar results could have been achieved at significantly lower cost. For health outcomes, these could also have been achieved at a much lower cost; and income gains through agricultural productivity are significant, while if the contribution that infrastructure made is taken into account there is limited cost-effectiveness.
- ▶ Sensitivity analysis shows that transferring such a project to local ownership could improve the value-for-money proposition, but that even a 50% cut in overheads would still yield questionable cost-effectiveness overall.
- ▶ Caution needs to be paid to interpreting this analysis. There are a number of limitations to the methodology, particularly relating to the uniqueness of the MVP in terms of the scope of its holistic nature; and its attempts to develop new infrastructure across a broad range of sectors in a relatively underdeveloped location. It was also difficult to precisely attribute specific costs to specific sectors and effects.



The MVP Endline Summary Report and MVP briefings can be accessed from [www.itad.com/knowledge-and-resources/MVEval](http://www.itad.com/knowledge-and-resources/MVEval)

Contact Itad, Preece House, Davigdor Road, Hove, East Sussex, BN3 1RE, UK  
Tel: +44(0)1273 765 250 | E-mail: [mail@itad.com](mailto:mail@itad.com) | [www.itad.com](http://www.itad.com)

#### Credits

This summary was written by Alison Dunn with contributions from Arnab Acharya, Chris Barnett and Edoardo Masset. The impact evaluation of the Millennium Villages Project in Ghana was carried out by a consortium led by Itad, the Institute of Development Studies and Participatory Development Associates (PDA) Ghana on behalf of the UK Department for International Development. The opinions expressed here are based on the findings from the evaluation and do not necessarily reflect the opinions of the UK Department for International Development. Readers are encouraged to quote and reproduce material from this summary in their own publication. In return, the impact evaluation consortium requests due acknowledgement and quotes to be referenced as above.