

## Case Study

# Educate Girls Development Impact Bond

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### Introduction

UBS Optimus Foundation (UBS Optimus) and the Children's Investment Fund Foundation (CIFF) engaged with Educate Girls (EG), an Indian non-governmental organization (NGO), through the world's first development impact bond (DIB) in education. The EG DIB was set to test a new model of results-based financing mechanism for improving social outcomes in international development—more specifically, to test the application of DIBs to improving the enrollment and educational outcomes for girls in India. UBS Optimus invested the upfront capital of USD 270,000 for the implementation of EG's project, and CIFF paid for the enrollment and learning outcomes. The project ran for three years from mid-2015 until mid-2018 and surpassed both of the impact bond's educational outcome targets.

### The problem

In India, despite the government's commitment to education, nearly three million girls are still out of school and substantial gender gaps in education persist. The female literacy rate in the country is 44%, compared with 76% for males. The situation is starker in rural areas: for every 100 rural girls, only 40 complete Grade 5 and only 1 reaches Grade 12. There are also social dimensions of marginalization. Where parents can afford to send only one of their children to a private school, typically that child will be a boy.

The gender gap is particularly significant in Rajasthan, where 9 of the 26 districts with the worst gender indicators in India are located. In rural parts of the state, a girl is more than twice as likely to be out of school compared with a boy, and 1 in 10 girls aged 11–14 years are not enrolled in school. In addition, only 50% of women in the state can read or write.

Since 2007, the NGO EG had been working to overcome the challenges of gender inequalities in education in the marginalized regions in India. Their program involved encouraging families to send their children, especially girls, to school and improving the quality of the instruction they receive once enrolled. In 2011, EG's program was exponentially growing, having scaled up from 500 schools to 5,000 schools. However, the sustainability and scalability of its model required new funding. EG was first introduced to the concept of payment-by-results (PBR) in 2011, when it decided to submit a proposal for the U.K. Department for International Development's (DFID) Girls' Education Challenge. Recurring to the support of Instiglio, a non-profit advisory firm specialized in results-based financing, they developed a proposal, but India ended up not being considered for the call. By that time, however, EG got interested in the PBR mechanism and decided to further build the idea and take it to the investors. On the investors' side, there was a growing interest to test the DIB model as a new tool for financing social programs and to explore whether the proposed benefits outweigh the costs of setting up and maintaining this complex partnership.

## Educate Girls development impact bond

After a series of roadshows and pitches to potential investors, EG eventually caught the interest of UBS Optimus, who further helped to bring CIFF onboard to work on a DIB contract.

The project targeted 180,000 girls and boys in Grades 3–5 in 166 government schools located in 140 villages in the Mandalgarh and Jahajpur blocks in the district of Bhilwara, rural Rajasthan, India. It focused on increasing enrollment for identified eligible out-of-school girls aged 7–14 years by 79% and improving learning for girls and boys in rural, remote, and marginalized communities. For that matter, children in Grades 3–5 were expected to achieve 5,592 Annual Status of Education Report (ASER) learning levels above control group gains. By targeting educational outcomes for girls, the project aimed to close the gender gap in an area where that gap is especially prevalent. Moreover, it sought to validate the benefits of a DIB, serving as a “proof of concept” of DIBs’ ability to secure new funding while delivering significant and sustainable social returns. Testing this new model was an opportunity to generate interest in DIBs among the public and private sectors.

The EG DIB was set up as a joint project between CIFF, EG, UBS Optimus, IDinsight, and Instiglio (collectively, the “DIB Working Group”). In addition, an Advisory Group was set up to provide governance and oversight of the project during its design and implementation phases. It comprised individuals from the following institutions: UK DFID, Center for Global Development, Results for Development, the World Bank Group, Mentor Growth Capital PwC, and Earth Capital Partners. The multi-party contract took several months to be drafted and agreed upon before it was ready to be implemented in 2015.

A DIB was the chosen mechanism based on its potential to sustain long-term, results-focused partnerships among non-profits, donors, and investors that address important social issues. In a DIB, performance incentives and private sector rigor are expected to motivate service providers to maximize their impact and their value for money.

Compared with traditional funding, DIBs are perceived as interesting for donors because they transfer the risk to investors who put in the initial working capital for the implementing organizations. Also, regularly measuring predefined targets enables the implementing organization to quickly adapt for any course correction where necessary. Thus, the implementing organization has an increased motivation to deliver results.

The project was designed to use multiple interventions aimed at improving school attendance and preventing drop-out for girls. Undertaking a community-ownership and mindset change approach, EG identified out-of-school girls through door-to-door surveys, explained the value of schooling to the parents and to the community, and engaged via multiple channels with the household and community where a girl is out of school. On the learning side, three times a week, young female volunteers delivered a child-centric curriculum, called Creative Learning and Teaching, to children in Grades 3–5.

## Stakeholders and roles

UBS Optimus, acting as the investor, financed EG’s project implementation cost of USD 270,000, and CIFF agreed to pay for enrollment and learning outcomes as ascertained by IDinsight. Of the total outcome payment, 80% was allocated to the learning outcome and 20% to the enrollment outcome.

The service provider, EG, received capital from UBS Optimus, the investor, to carry out its three-year intervention. The working capital was set to be disbursed in two payments: 40% in the spring of 2015 (start of the project) and the remaining 60% a year later, in the spring of 2016. As performance manager, Instiglio provided technical advice during the design, overall project management, as well as performance management assistance to EG on behalf of UBS Optimus.

IDinsight, the outcome evaluator, assessed on a yearly basis the progress that EG made in improving enrollment and learning outcomes. To operationalize the intervention, IDinsight and EG each sought to enter into a memorandum of understanding with the Rajasthan government for evaluation and

implementation. At the end of the project, an outcomes evaluation report was provided by IDinsight to CIFF (the outcome payer), UBS Optimus, and EG, showing the measured impact of the intervention on enrollment and learning for the target population.

The design of the DIB was guided by the following principles:

- Create the largest possible impact on girls' education in the target population;
- Allow each stakeholder involved to play the role that they are best positioned to play;
- Maximize the replicability of the design process and the replicability of the DIB, especially in the education process;
- Allow EG staff to understand the DIB's payment metrics and payment design and how they translate into their work;
- Avoid perverse incentives in the design for any participant in the program, especially protecting its beneficiaries.

### Evaluation, repayment, and outcomes

IDinsight evaluated the enrollment target with a pre- and post-evaluation method. At the start of the intervention, EG performed a door-to-door primary survey to identify out-of-school girls and establish a target group. The accuracy of the enrollment list was then verified by IDinsight by sampling a portion of the list and conducting school and household visits.

Concerning the evaluation of learning gains, IDinsight adopted a clustered, randomized control trial approach. To construct its sample, IDinsight used the data from all eligible schools in the Jahajpur and Mandalgarh blocks, rather than selecting a random sample of schools. Within eligible villages, all out-of-school girls (based on EG's verified lists) were included in the sample. Within eligible schools, learning outcomes were measured using data on all students in Grades 1–5 at baseline (as well as newly enrolled students). Out of the 338 eligible villages in the sample, IDinsight randomly selected 169 to be in the treatment group and 169 to be in the control group. Aiming to maximize the probability that randomization actually produces comparable treatment and control groups, IDinsight identified pairs of villages within the sample that are most similar to each other and randomly assigned one village in each pair to receive the EG program. The resulting treatment and control groups comprised the exact same number of villages (169) and the exact same number of schools (198).

The learning outcomes payment metric was measured using the students' performance on the ASER test. The test was administered to students by IDinsight before and after the intervention and measured three proficiencies: Hindi, English, and mathematics. CIFF agreed to pay UBS Optimus 43.16 Swiss francs for each learning gain among boys and girls in Grades 3–5. Student enrollment was defined by the percentage of out-of-school girls (aged between 7 and 14 years) enrolled in school by the end of the third year of intervention, as verified by IDinsight. Moreover, CIFF agreed to pay UBS Optimus CHF 910.53 for each percentage point of girls who enrolled based on an out-of-school girls list.

CIFF committed to pay back the initial funder the original amount plus extra returns as long as enrollment and learning targets were met. The maximum outcome payment was set to USD 422,000. UBS Optimus' return on investment was defined as a 15% maximum internal return rate (IRR) before incentive payments to EG. Therefore, UBS Optimus incentivized EG to achieve above-expected milestones by giving it an incentive payment out of the payment it receives from CIFF. The incentive payment was calculated as 32% of the amount by which the outcomes payment exceeds the initial investment principal.

The project ran for three years from mid-2015 until mid-2018 and covered more than 18,000 beneficiaries. The results surpassed the two target outcomes measured. By July 2018, 160% of the final learning target was met. Students in EG schools had on average 28% more learning gains compared with students in control schools. Regarding enrollment, 116% of the target was met. Moreover, 92% of all identified out-of-school girls were enrolled in school. Thus, EG exceeded the enrollment target of 79% by 16%.

As a result of the over-achievement at the end of the three-year project, UBS Optimus recouped its initial funding (USD 270,000) plus a 15% IRR from the outcome payer CIFF. The total pay-out was set to be reinvested in UBS Optimus' grantee programs, including a grant to EG.

### Some challenges

At the design stage, two components for the DIB deal were considered but ultimately rejected: tariffs and thresholds. The establishment of tariffs would be a way to exert additional effort into some groups. For equity reasons, tariffs would imply outcome payers pricing outcomes for the most marginalized populations at a higher value. On the one hand, tariffs were perceived as a way to incentivize EG to target difficult-to-reach beneficiaries, such as scheduled caste girls or children who have low initial performance scores on the ASER test. On the other hand, establishing tariffs would add complexity to an already complicated payment design. The DIB Working Group concluded that this would create too many goals for EG and reduce their ability to focus on the end result. Furthermore, dividing the target population into subgroups could reduce IDinsight's ability to detect statistically significant impact. Thresholds, as per levels of outcomes below which no payments would be made, were considered as a way to communicate outcome payer preferences for minimum required impact. The Working Group, however, considered that adding this component to the deal would alter the risk-return profile of the investment and could increase the chance of perverse incentives, such as only working with beneficiaries the provider believes will cross the threshold.

The key assumption for using the pre-post design to yield causal estimates of the impact of EG's program was that non-program factors would have a negligible effect on changes in enrollment during the study period. From the beginning, however, the Working Group knew that this assumption might not be robust because many factors could change during the study period, which could affect the enrollment of out-of-school girls. However, they still opted for it as the best option for measuring enrollment outcomes because of evaluation budgetary constraints and to prioritize a focus on learning outcomes.

The Working Group was also aware that there were some common "threats to validity" that could introduce bias when executing a randomized evaluation to measure learning outcomes using treatment and control groups. Among them is the possibility of non-compliance, in which units switch study groups during the course of evaluation. Another potential threat is the contamination of the control group if the government decided to allocate additional resources to control schools. A related problem is spillovers, which occur when the intervention has indirect effects on the units in the control group. During the implementation of the EG DIB, a few non-treatment schools ended up acquiring EG's teaching materials that possibly led to biased results in the control group. The Working Group was also aware that errors in data collection could lead to imprecise or inaccurate measures of impact. Finally, a Memorandum of Understanding (MOU) for evaluation between the Government of Rajasthan and IDinsight proved difficult to obtain and led to delays.

From a sustainability standpoint, the EG DIB has faced criticism for the high transaction costs of the project. The budget initially estimated by EG for the DIB ended up not being accurate, and it had to absorb the additional costs incurred. The actual outlay exceeded the estimated budget owing to unanticipated costs resulting from several adaptations and innovations made to the delivery model to achieve the targets.

Moreover, for various reasons (including missing children who were chronically absent from school), the results of EG's year one and two internal assessments showed much more positive results compared with IDinsight's assessments.

Finally, another major challenge faced during the project was that by the end of the first two years of the program, students' progress on learning was still significantly lagging behind, having only reached 50% of its learning gain targets. Major design modifications were employed at this stage to reach the learning gain targets. Once EG learned that only 50% of the learning gain targets had been met by the end of

year two, it leveraged the data shared by IDinsight to identify student groups with poor learning gains and ramped up its course correction by introducing a range of interventions targeting them. Structural changes to delivery, such as an increased number of sessions and teaching groups aligned with competency levels, were combined with improved child-centric curriculum content, emphasizing personalized learning. In addition, the number of teaching sessions was increased and training sessions for teachers and home visits for persistent absentees were held. With a focus on outreach for all hard-to-enroll girls, EG organized home visits for persistent absentees and closely worked with their families. Community volunteers also actively met students' parents and organized village meetings to influence the entire communities' mindset toward girls' education.

### Lessons learned for future impact bonds

Based on the experience of the EG DIB, the Working Group concluded that this DIB model can drive significant innovation and impact gains even in organizations that already have a strong trajectory of delivery, as EG did prior to the DIB. The increase in the effectiveness of EG's program in the final year suggests that the combination of flexibility and rigorous evaluation can create conditions for rapid learning and improvements. The positive results of the experience have been attributed to the articulation of a shared vision from the outset of the DIB contract, which kept every stakeholder aligned to a common goal throughout the years. The EG DIB also led EG toward decentralized data-driven decision making. Data have helped to identify the gaps in program delivery, define areas where greater focus was needed, and do the course correction accordingly. However, several adaptations might be needed to incorporate the lessons learned in future arrangements.

First, increasing sustainability is critical to reduce the transaction costs and adapt terms and structures to make DIBs relevant to a wider group of investors and outcome payers. Future DIBs should consider larger outcome pots, which would benefit all stakeholders by allowing investors and outcome payers to pool risk and spread transaction costs over a wider base. Moreover, to scale the DIB ecosystem and meet the promise of unlocking new forms of capital, processes to arrive at the DIB design may have to evolve to accommodate the perspectives of a wider set of stakeholders. For example, DIB stakeholders may have to consider undertaking risk analysis to establish return pay-outs for commercial investors and/or differently structure the investment to distribute risk.

Second, EG DIB stakeholders argued that future DIBs should consider early facilitation of government buy-in around DIB activities, particularly when implementation partners are using government delivery channels. Government buy-in may also be important to ensure long-term sustainability and scale of the intervention, for example, by transitioning to a social impact bond.

Third, the experience of the EG DIB shows that implementation partners may need greater handholding support during the initial stages of the bond design phase to better engage with targets, develop evaluation methodologies, and more accurately budget for resource requirements. The EG experience underscores the possible need for additional resources toward innovation and adaptation, which implementation partners may not have factored in their budgets.

Finally, to replicate the model, the EG DIB experience suggests that certain capabilities of implementation partners are required to enable an effective leverage of DIB structures and processes. These include having a target-driven culture, existing monitoring and evaluation capabilities (even if used in another context), and an entrepreneurial culture that is receptive to learning and adaptation. In markets and impact areas lacking organizations with such capabilities, there may be a need for catalytic capital for capacity building to prime the market for DIB-like instruments.

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