



MediBus

Fleet of mobile clinics bringing primary healthcare to families in the tea plantations of Assam, India

The challenge

India is the second largest tea producer in the world, after China. More than half of India's tea production comes from the state of Assam. Last year saw global attention directed towards the deplorable condition of the workers at such tea plantations to the extent that the World Bank and IFC intervened to improve their living conditions.

Indian Comptroller and Auditor General published a report (2017)¹ calling for urgent action to provide better healthcare amenities for the tea plantation workers.

- 643 tea estates with more than 1000 workers each are deprived of public healthcare and standardized and sufficient medical facilities.
- 17% of the tea plantation workers have TB, diarrhoea is the cause of 35% of deaths of children below the age of 14, 51% of the total encephalitis cases in India were reported in Assam
- The nationwide worst maternal mortality ratio was recorded in Assam.

Karbi Anglong is a central district in Assam, with tea estates and a population of 1 Million. Lack of proper transportation facilities and hilly terrain form a hurdle for the commute to health clinics, which are scarce to start with.

The solution

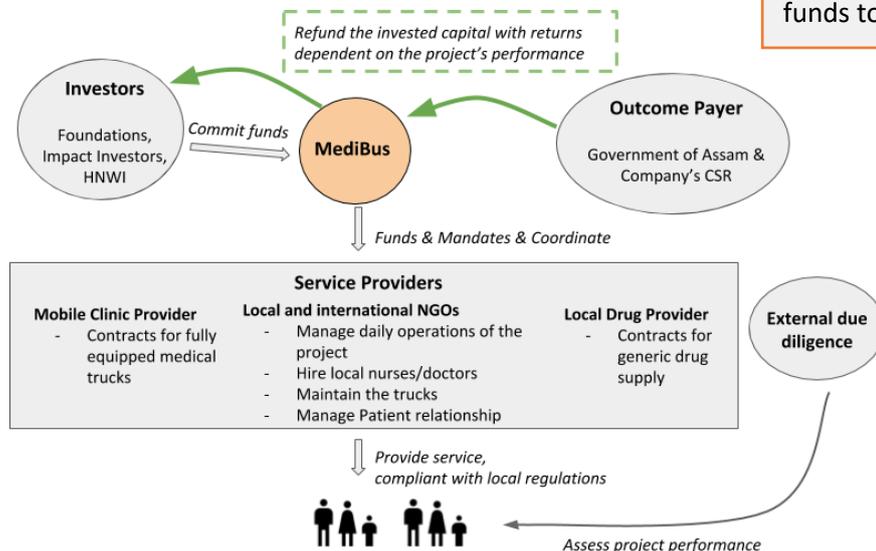
MediBus aims to formulate a **Hybrid Impact Bond** to deploy medical trucks that are fit for the terrain, to provide medical care, approved by National Accreditation Board for Hospitals and Healthcare Providers (NABH), to the tea plantation workers and families of Karbi Anglong. The bonds aims to bring standardized healthcare to more than 350 thousand people over the duration of 5 years.

Bond Structure

Asset Class	Hybrid Impact Bond
Principal	\$5 Million
Maturity	5 years
Investors	Healthcare focused foundations (such the UBS Optimus Foundation ²), Impact Investors, High Net Worth Individuals
Outcome payer	Government of Assam, partner companies' CSR <i>*see box below</i>
Service Provider	Local and international NGOs specialized in the healthcare sector
Performance metric	Number of tea field workers/ families offered primary quality healthcare, compliant with the NABH accreditation
External Due Diligence	The quality of healthcare is assessed through the standards set by the Indian National Accreditation Board for Hospitals & Healthcare Providers (NABH).
Impact Goal	Offering accredited quality health care to 75,000 people yearly.
Return	Performance based: 7.6% IRR in case of success <i>*see Investor's return for details</i>
Fees	Yearly 2.5% of committed capital. 5% in case of a project success.

Mandatory CSR in India

The amendment of the Companies Act of India in 2013, requires all companies with annual profit after tax (PAT), exceeding \$0.7 Million, to set apart a specific percentage of their profits for corporate social responsibility (CSR). The percentage ranges from 1-5%, depending on the PAT. MediBus hopes to tap into these funds to constitute a portion of its outcome payment.



Fund flows

Investors

Initial investors commit the sum of \$5 million to MediBus, a SPV, at the start of the project. Capital Calls are distributed as follows: at the start of the project and end of year 1, investors disburse \$1.3million. At the end of year 2, 3 and 4 investors disburse \$0.8m.

Service provider

MediBus partners up with key service providers. From **Medical truck**

¹ Source: CAG glare on health sector, The Telegraph, Oct 2017

² They invested in a Indian Social Impact Bond aiming to decrease maternal and neonatal mortality rates

manufacturers, such as *Odulair*³, three fully equipped medical trucks are purchased at the very beginning. Post the staging phase, where the trucks have been in use for a few months and the operations are fully tested, three additional trucks are purchased. The medical trucks constitute the main CAPEX in year 1 and 2. In a second instance, MediBus partners up with **local and international NGOs**, such as Population Services International (PSI)⁴ and players who are already active in the tea plantations under the Indian National Rural Health Mission⁵. MediBus funds and contracts them to manage daily operations and the delivery of healthcare. Operational costs remain roughly constant over the life-time of the bond. Furthermore, partnerships with **local generic drug manufacturer**, such as Sun Pharma⁶, lead to lower drug costs and assured supply.

Outcome payer

At the maturity of the bond, 60% of the principal amount is repaid independently of the outcome. The remaining 40% and the return are coupled to the project's performance. The performance assessment starts in year 3 and is done on a yearly basis. Depending on the yearly performance a specific sum is paid out to the investors. If the threshold of 75,000 yearly treated people is met, investors are paid out 21% of principal value. If the threshold is not reached but more than 35,000 people are treated yearly, 13% of principal value is paid out. If less than 35,000 people were treated, nothing above the guaranteed amount is paid out to investors.

In all performance scenarios, the government of Assam contributes 60% of all the outcome payment and the companies' CSR contribute the remaining 40%.

Financials & Returns

Operational key assumptions

- Detection and treatment is offered for free
- In total 6 buses are deployed. Each is assumed to employ 3 nurses/doctors and to operate daily during 8 hours, out of which 2 hours driving time is counted.
- Two patients are simultaneously treated per truck with an average of 20min treatment time.
- A fully equipped medical truck has a price of \$175,000⁷
- Average cost (including direct cost, such as drugs for treatment and direct labour cost, and indirect cost) is assumed to be \$7⁸ per patient per visit.

Investor's Return

All in all, investors get an IRR of 7.6% if the threshold is met in every year after year 2 and experience an IRR of minus

15% if less than 35,000 people were treated each year after year 2.



Risk

Risks	Mitigation Strategy
Unfavourable treatment from tea plantation owners	Alignment of incentives, by contributing to improve their image on well documented polemic
Policy and regulations change	Strong partnership with government such that policy changes won't affect operations
Exchange rate risk	Hedge with futures contracts and options
Default by the government	Include a guarantee from an outside entity

Scalability

After the completion of the bond, depending on the performance, a second round of the bond can be structured with higher value, bigger outreach and higher efficiency measures. The ownership of the trucks at the end of each bond tenure is given to the government to incorporate into the healthcare system. Furthermore, boat clinics can also be added into the project to cater to the regions around the Brahmaputra river.

³ American company providing fully equipped medical truck

⁴ They provided services for a maternal healthcare social impact bond in India and have experience in setting up clinics in development countries.

⁵ National mission to make healthcare accessible to rural areas. A private/ public partnership attempt to improve healthcare system has been put in place in Assam in 2008 (Source: 'Fact Finding Report on Maternal Health in the tea Estates of Sonitpur District, Assam', Human Rights Law Network, July 2013)

⁶ Indian pharmaceutical company with the mission to manufacture drugs affordable and accessible to the marginalized communities.

⁷ Odulair medical truck price adjusted to Indian prices

⁸ Measure obtained by taking weighted average of treatment costs for specific diseases/injuries in developing countries