**Headline**: Business plan to stem MRI shortage in Ethiopia.

**Summary**: A dearth of MRI scanners in Addis Ababa has an American business man putting his entrepreneurial knowhow toward creating a solution and a business opportunity.

**Byline:** James Jeffrey

**Location:** Addis Ababa, Ethiopia.

**Main story:**

Magnetic Resonance Imaging (MRI) scanners are so numerous in the West that there is now talk of them being overused—but that is far from becoming a problem in Ethiopia where they remain a form of technology out of reach to the masses.

Such gaps in Ethiopia’s healthcare are clearly areas of concern to the Ethiopian government and many non-governmental organizations (NGOs) engaged in improving coverage.

At the same time, such deficiencies present opportunities for entrepreneurial deftness to solve problems and conceivable close gaps. Hence the germination of a project to bring a mobile MRI scanner to Ethiopia and establish a profitable but also socially conscious business.

“This project represents the highest form of achievement edified by the mantra: ‘Doing well by doing good’,” says Peter J. Burns III, an American entrepreneur now based in Addis Ababa as a self-styled “ExPatrepreneur” and who is leading the project.

MRI scanners use strong magnetic fields and radio waves to generate images of the inside of the body that can be analysed on computers. Since MRI does not use any ionizing radiation, as with X-rays, it is regarded as a relatively safe means of analysis.

Addis Ababa, the Ethiopian capital with an ever growing population of around 3.8 million currently, has only four MRI scanners serving 30 hospitals. Outside of Addis only two MRI scanners exist. All scanners are old fashioned and far behind the technological curve in the West.

Another problem is that each MRI scan costs about 2,000 birr ($115) to conduct and process the images generated, a figure beyond the mean of most Ethiopians, many of whom earn between 500-1,000 birr a month.

**Healthcare under strain**

Ethiopia technically has free health care for all, provided by government-run hospitals. The reality, however, is that there are not enough hospitals and most suffer from inadequate staffing, budgets and machinery. Private hospitals exist but as an option only available to very few Ethiopians.

MRI scanners are typically luxuries that both government- and private-run hospitals in Ethiopia can’t afford. The mobile MRI scanner will serve private and government hospitals in Addis Ababa, according to the project’s planners.

It would be disingenuous to claim the scanner would save lives, says Zelalem Molla, an Addis Ababa-based surgeon whose lunchtime chat with Burns about the paucity of scanners in the city sparked the project, and who now has an advisory role. But, Zelalem notes, the scanner would play a crucial role in allowing more doctors to diagnose illnesses far earlier when they are still operable and potentially curable.

Often it is not possible for doctors to diagnose illnesses such as tumours until they manifest themselves physically at a stage when the chances of saving a patient are slim—or non-existent.

An MRI scan can allow a doctor to beat the clock, so to speak, and spot the problem in time.

**Can business be benign?**

This will be a for-profit enterprise with a charitable component, Burns explains, as 25% of scans will be free to those unable to afford them.

Also, there is a plan for a portion of profits to fund a not-for-profit venture called Doctors Within Borders, which aims to provide financial incentives to encourage Ethiopian doctors to remain within Ethiopia, as well as work in remote rural areas.

Admittedly the profitability of the remaining 75% of the scans will take a hit due to donated services and the Doctors Within Borders project, Burns says, though the profitability of the business as a whole will remain viable.

And generating a healthy bottom line can have a beneficial role to play in healthcare provision.

For despite the admirable work done by many NGOs, humanitarian healthcare usually struggles with sustainability and operates perilously from grant to grant, says a worker within the sector in Ethiopia, who wished to remain anonymous due to current work commitments.

Private enterprise, on the other hand, he notes, can achieve long-term sustainability thanks to profit generation.

And it is usually more flexible than NGOs typically hampered by rigid fiscal guidelines, more efficient due to greater accountability, and can free up capacity within public- or NGO-provided healthcare.

Admittedly profit generation within healthcare can turn sour and escalate wildly, he notes, as witnessed in US, but Ethiopia’s healthcare system remains light years away from encountering such problems.

**Making it happen**

Burns has been commuting to the States to meet suppliers and experts in the MRI industry, and he hopes to have a portable MRI scanner operational in Ethiopia within 6 months.

Acquisition of the right equipment—which balances technological sophistication with affordability—as well as shipping and importing with required permits and licenses into Ethiopia are the main factors affecting the launch date.

He has the initial investment cost pegged at $1 million, which he says he can raise through his new Ethiopian Investment company along with one other Ethiopian investor.

Meanwhile, however, other limiting factors remain, as well as challenges to be overcome.

A portable MRI scanner needs a large lorry, reinforced with a special base plate to protect sensitive equipment from vibrations. And some hospitals may not have big enough access roads or parking spaces available.

And the lorry will only operate within Addis Ababa due to the scanner’s sensitive equipment being unable to tolerate the roads and topography outside of the city.

Furthermore, MRI scanners require an industrial sized power supply from special power points which hospitals may lack or be unwilling to pay for to get installed.

Currently the project team is sending questionnaires to 20 Addis Ababa-based hospitals as part of a feasibility study to gauge opinions on the aforementioned issues and others.

Burns has nearly four decades worth of business start-up experiences under his belt from which to draw problem solving inspiration. He remains confident that he can improve the MRI scanner situation in Addis Ababa.

And if that is achieved, then the same business model could be applied to other major Ethiopia cities around the country.

“I am very quick to recognize opportunities and then put together a viable plan of action to capitalize on those opportunities,” Burns says.

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**Suggested content for quote boxes**:

“This project represents the highest form of achievement edified by the mantra: ‘Doing well by doing good’.” Peter J. Burns III. Entrepreneur and founder of mobile MRI scanner project.

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**Photograph details**

1. One of the few MRI scanners in Addis Ababa, based at Saint Gabriel Hospital. Photo by James Jeffrey.

2. Schematic of mobile MRI scanner interior. Acquired via Internet.

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