

## ADDRESSING INFANT MORTALITY

### Introduction

A young man named “Mtoto” born and raised in one of fastest growing City of Tanzania called “Ngata” has never contemplated being an entrepreneur in his life. Instead, he watched pre-term babies dying unnecessarily in a distant hospital and wanted to make a difference in some way.

What did Mtoto do? In the under-funded and under-equipped bio-medical labs in “Ngata,” Tanzania, he designed a baby warmer prototype that could reduce infant mortality while being affordable to the majority of the “Ngata” health care providers.

### The Context, problem and innovation.

Over nine hundred and fifty (950) kilometers, South-West of the Capital of Tanzania, in the evergreen hills of the Southern Highlands, you will find Ngata City. There you will meet “Mtoto,” the soft-spoken bio-medical engineering student at “Maarifa” Medical University. To understand “Mtoto” and a Company that he established (Afadhali Africa Healthcare), you must first understand Ngata, a city of contrasts.

With a population of over 800,000, Ngata is a no backwater Tanzania City. Maarifa University alone enrolls over 8,000 students and is among the few National public research institutions in Tanzania. However, Maarifa is remotely located compared to other higher learning institutions in the Country. Ngata is a quiet City with a few paved roads through town, surrounded by coffee and tea plantations, cattle, all saturated with tropical rains much of the year. Little comes and goes and innovation only occasionally trickles in.

Understanding Ngata is key to understanding Mtoto and the success of this student who set out to make a difference not only in Ngata and Tanzania but also in the world at large. Mtoto will need you to suspend your disbelief as he overcomes the barriers of location and access. The founder of Afadhali Africa Healthcare realizes the potential impact of his Afadhali baby warmer prototype. And so, with steady perseverance, he leaps over, circumnavigates, and wrestles with hurdles to bring his baby warmers to the market.

For his efforts, the Tanzania Science and Innovation Award through its Entrepreneurship track granted Mr. Mtoto sixty million Tanzania Shillings for a project with the “Most Potential for Long Term Impact.” And now, Mr. Mtoto is on the journey of turning potential into impact, and meeting the challenges of his location along the way.

### Mentorship role

The organizers of Tanzania Science and Innovation Award usually conduct routine visits to identify potential individuals for awards. On a 2017 visit to Ngata, the team met a bio-medical engineering student at Maarifa Medical University, who had applied for a seed funding in a recent closed application window. Mr. Mtoto admits as much and says, “Before I applied for seed funding, really I had no knowledge about business model development, financial projections, and feasibility.” Mtoto did not set out to be an entrepreneur, but to make a difference in some way. In Ngata, his prototype idea took shape and with award mentoring, so did his knowledge of entrepreneurship.

Winning mentoring and funding from the Tanzania Science and Innovation Award put Mr. Mtoto into the journey of idea transformation to fruition. He wisely says, “Smart ideas by themselves can’t bring the expected impact that we spend our time dreaming about.” Award mentoring, along with fiery crucible of the 2017 Innovation Boot Camp, made Mr. Mtoto into an entrepreneur, and founder of the Afadhali Baby Warmer business.

During 2017 Award Round mentoring, mentors from different parts of Africa and across the Globe advised Mtoto on his business idea. All mentors encouraged his idea and boosted his confidence, but advised that he better forecast costs and his revenue. For Mtoto, sourcing high-tech parts in Tanzania or elsewhere would provide a daunting, but not impossible challenge. As Mtoto passed all the rounds, and then as he hesitantly crossed the stage a winner, the challenges of material sourcing and prototype development confronted him head on.

### **It is not about business, but life saving**

But is this confrontation all worth it? What is the Afadhali Baby Warmer prototype that Mtoto hopes to bring to the market? Mtoto confidently states: “Afadhali Baby Warmers can save the lives of thousands of pre-term babies in different parts of Tanzania and beyond due to its affordability in remotes regions of low and middle-income families.” Mtoto wants to bring his baby warmers to the remote and underserved hospitals in Ngata and the whole of Tanzania. So far, he has four major institutional customers interested in getting the product.

By recent estimates, Tanzania has a population of about 50 million, but only about 30% of the population has access to electricity. Thus, a large number of Hospitals and health centers are running without electricity, particularly in rural or remote areas. Due to lack of electricity in such establishments, infant mortality is still too high. With Afadhali Baby Warmers, Mtoto desires to make preventable infant mortality a tragedy reserved for only history books.

His solar powered baby warmers provide life-saving care for rural clinics, and households with babies in need of special care as they enter the world. Mtoto eagerly anticipates the product on the market. He says, “When the product becomes available for market its social and economic impact will be high. The Tanzanian health facilities, government and non –government health centers and hospitals are beneficiaries of the project.”

As it is the case for any entrepreneurial initiative, the project was plagued by a variety of challenges, but Mtoto has been steadily navigating such challenges. For instance, he says, “some medical regulations of the country delayed the product to reach the end users in some areas” and that “medical device manufacturing is difficult in the current situation of my environment.” But, he has kept pushing ahead.

### **One Idea produces Five Employees**

When Mtoto started his entrepreneurial journey, he started alone with one big idea. And now, after receiving Tshs. 60 million of funding and a boost of confidence, this one-man show from Ngata now employs 5 permanent staff. His team works with him on design and product development. He hopes that with the launch and local manufacturing of some of the units he can create job opportunities for many Tanzanians in different disciplines.

Coming alongside Mtoto's success were also a series of mentors' advice and encouragement. As the majority praised his idea, there were no shortfalls of comments. For instance, one encouraged him "your idea is good...however, you need to be smart with your design as the existing products likely have intellectual property rights that you if you infringe upon can shut you down." Another mentor told him, "What brilliant positioning – you can't do better than saving the lives of babies in Africa. However, in my opinion your financial plan is conservative in what it will cost to bring this product to market." Others advised on the success plan as the project was rated well in employment creation, but not success plan.