



# INSPIRING FUTURE AFRICAN LEADERS





Dear Friends of Taungana,

Greetings to you all!

We are thrilled to share with you some highlights of our movement's journey to date. For the past three years we have been up to so much it's hard to pick and choose what to share 😊!

So, if you haven't heard, Taungana is a movement with a pretty simple worldview (we think) – that no one is better placed to solve Africa's most pressing issues than the women that have to deal with the same issues every day of their lives. We find these women in the 62% mass of Sub-Saharan Africa that is classified as rural. We believe in a generation of rural high school girls that change their lives and their communities through entrepreneurial science, technology, engineering and mathematics (STEM).

How do we go about realising this? We empower high potential rural school girls with an opportunity to access and explore the world of STEM through real life problem solving. This journey is supported by a range of partners from sponsors, industry hosts and champions, outreach communities and individual friends of the movement. We thank you for your support, which has brought us this far. We continue to strive for mutual partnerships that create a supportive ecosystem which collectively addresses the multiple socio-economic barriers our girls face in STEM engagement. Most of all, we thank the volunteer team at Taungana that gives their best daily to keep this engine running!

While the annual week-long STEM Expo in August forms the initiation platform for Taungana Ambassadors (participating rural high school girls from Southern Africa), the impact of the Taungana model is only fully realised once the Ambassadors return to their home communities and in the ensuing period until they finish high school and beyond.

In order for this impact to be fully realised, and future interventions improved to address actual barriers to community development through science, it is imperative that a robust support network be made available for Taungana Ambassadors throughout and at the end of their high school journey post the STEM Expo.

Walk with us, join us and let's make the movement bigger!

*Changing the face of Africa. Empowering future African leaders.  
One girl at a time.*

From all of us at The Movement;

*Sandra*



**Taunganafrica**  
empowering girls through STEM



# Taunganafrica

empowering girls through STEM



*Taungana changed me for the better. I arrived being abigail makondo and left as ABIGAIL MAKONDO. With the motivation from the team and people from different companies we went, I am determined to be the first ABIGAIL MAKONDO, instead of the next Dr Ozz.*

— Abigail Makondo, 2016 Ambassador, Limpopo, South Africa



# A movement on a mission

# 2016

## Vital Stats To Date

**83** Ambassadors making waves



**900+** male and female students reached



Countries – South Africa, Zambia, Zimbabwe



**>22** Provinces

Provinces

**>28** Districts/ communities

Districts

**>45** High schools



Design Thinking: Curriculum turbo boost!  
Impact tracking (read on...)



## Outcomes

Access and exposure:



**STEM** industry exposure



Sector focused/ specific skills transfer



Technology knowledge transfer



Applied entrepreneurial curriculum/ design  
thinking methodology



**Epic** friendships across borders





# The journey of a movement



# CHELSEA MAHLA



MASVINGO PROVINCE, ZIMBABWE

TAUNGANA AMBASSADOR 2014 (MATRICULATED 2015)

**ASPIRATIONS:** MEDICINE (CURRENT STUDIES)

## TAUNGANA HIGHLIGHTS

Chelsea is one of the first Taungana Ambassadors to finish high school from the pioneer 2014 cohort.

Energetically sailing through the inaugural STEM expo and continuing to focus on her schoolwork to score no less than distinctions in Maths, Physics and Chemistry; Chelsea was spoilt for choice between pursuing Acturial Science and Medicine. She has chosen to pursue Medicine and has recently been selected as a mentee for the Kectil Program.

An excited Chelsea informed us – "I finally wrote my A Level last year and got my results this year some time in February. I accepted a place at the University of Zimbabwe for studying Medicine. I am starting on 22 August this year (2016)!"

## CHELSEA DAILY STEM EXPO REFLECTION 2014

*Zooming in on the statistics of underrepresentation of females in multiple STEM fields, and initiatives to bridge this gap being rolled out within organisations, a then 16-year-old Chelsea critically reflected after her visit to Anglo American:*

*"...They also have a good number of women working there even though I still believe it's not good enough and I hope our generation will change that."*



# JUANÉ LOTTERING



BASTIAANSE SECONDARY SCHOOL

WESTERN CAPE PROVINCE, SOUTH AFRICA

TAUNGANA AMBASSADOR 2014  
(MATRICULATED 2015)

**ASPIRATIONS:** FINANCIAL ACCOUNTANT  
(CURRENT STUDIES)

## TAUNGANA HIGHLIGHTS

Juané was the pioneer Ambassador from the Western Cape province, which is one of the most remote and challenging to recruit from. She hails from a very remote farming community.

Her project in 2014 was focused on raising STEM awareness in creative and engaging ways for girls in her community. Juane continues to encourage girls in her community to pursue their dreams and apply for the Taungana programme 2 years on after Taungana and 1 year on after matriculating.

## JUANÉ EXIT REFLECTION 2016

*I am Juané Lottering from the Western Cape province. I was part of the first group of Ambassadors of 2014.*

*I passed my matric in the year of 2015 and I am now currently busy studying Financial Management in Cape Town. I am aspiring to become a Financial Accountant.*

*When I was chosen to be one of the first Ambassadors for your expo in 2014; I was deeply honoured and grateful that you chose me to participate. During the Expo in August I got motivated by all the different women that had so much passion for what they do, their positions in their careers and the great pride that they had in themselves to be able to carry that specific career as a woman. They showed me the different careers we saw were not only meant for men, but women can do them too and that no job or career you enter has a specific gender that must apply to it.*

*I may not be directly studying in the field of Engineering or Science, but the career I am busy studying I feel definitely needs more women empowerment.*

*I am going to become part of that empowerment, to show young girls that if you work hard enough and have a big amount of passion for what you want do, nothing should hold you back!*

*This is why I am so grateful and thankful to have been able to participate in the 2014 Expo."*

# LYDIA KUNDIDZORA



UPPER 6 (GSCE A LEVEL) STUDYING MATHEMATICS, PHYSICS, CHEMISTRY

TAUNGANA AMBASSADOR 2015, ZIMBABWE

**ASPIRATIONS:** STUDY CHEMICAL ENGINEERING OR MEDICINE (SPECIALIZING IN GYNAECOLOGY)

## TAUNGANA HIGHLIGHTS

Lydia identified a need for clean water in her community and designed a project on a coal/ charcoal water filter. The project was recognized as Best Project Zimbabwe at the Taungana STEM Expo 2015.

After Taungana, Lydia continued to work on and present the same project at two School Science Exhibitions at the district and provincial level in Zimbabwe (Gutu and Masvingo). She won best presentation in both exhibitions, walking away with two smartphones!

## LYDIA PERIODIC REFLECTION

*(captured 2016 in direct Impact Study Interview):*

*Lydia found particular inspiration at the STEM Expo from the people she met at Aurecon and Anglo American. She found it interesting to see women doing jobs which she thought were only reserved for men. This inspiration has given her the courage to dream big and set informed goals for herself. Her immediate goals include doing well in her national ZIMSEC and Olympiad examinations.*

*Future project plans: In future, she plans to secure funds and expand her coal filter project beyond prototype so that it becomes a viable solution for disadvantaged communities.*

*Leadership and Activism roles: Lydia is an active Organizer of Community Living Group at Mukaro High School. Her roles include organizing fundraising events; the funds are used to pay school fees for disadvantaged Mukaro Primary School students. She also mentors junior students who intend to present projects at school science exhibitions.*

*How Taungana can improve: Lydia would like to see Taungana expand and include more Ambassadors each year. She also believes it would be helpful to create a platform where all Ambassadors can keep in touch and share resources and ideas.*



# NATASHA MUSATILA



GRADE 12 STUDYING MATHEMATICS & SCIENCES

TAUNGANA AMBASSADOR 2015, ZAMBIA

BEST PROJECT ZAMBIA 2015

## TAUNGANA HIGHLIGHTS

Natasha designed a simple fertilizer applicator to primarily solve the problem of low crop yields in her community. The young Zambian is determined to make a mark and has consistently improved her academic performance. Natasha's last feedback reflection includes a sterling mock exam result. As she finishes high school and matriculates at the end of this year all we can say is – "Watch this space!"

## NATASHA PROJECT REFLECTION 2015

*"Many people in my community use their hands to apply fertilizer, which is bad, unhealthy and delaying; farmers spend a lot of time applying fertilizer to their crops. There is no specific amount of fertilizer being used, resulting into low yield of production in my community. My solution is targeted at Subsistence Farmers."*

# ONELISIWE MXHOSANA



GRADE 12 STUDYING MATHEMATICS & SCIENCES

TAUNGANA AMBASSADOR 2015, SOUTH AFRICA

BEST PROJECT OVERALL 2015

## TAUNGANA HIGHLIGHTS

One's product, OxoFree, is an Oxygen Cancelling Machine that releases argon after sensing fire to terminate the oxygen, and accelerates the rate of combustion. The product is to combat household fires which cause financial distress and families losing their properties and at times, their lives. It is targeted at all households, especially for those dwelling in shacks.

## NATASHA PROJECT REFLECTION 2015

*On lessons learnt working on her project in the community as she takes a break from it to focus on her final high school exams:*

*"The product development requires a lot of input and a lot of money to obtain the raw materials. My siblings have tried to help. The system would have to be completed and installed in the building it is made for, because of the different sizes of tanks.*

*I require further education to be able to make the product work and install it."*



# A Taste of Empowerment

*By Erin Liebenberg, Stephanie Askew, Iman Cassim and Danika Ramalingum*

It has been an honour to work with Taungana and through it we have learnt not only what it means to be a mentor to a group of strong and talented girls, but also what it takes to be a girl dedicated to Science, Technology, Engineering, Entrepreneurship and Mathematics (STEM) in a world where far too many people still believe that women are incapable of performing or should not be involved in any of these fields.

Taungana gives girls a chance to explore the fields they love but often have not had the opportunity to delve into in any meaningful way. It was personally incredible for us to witness the journey of a number of girls who came into the camp with a passion for STEM and left it with more knowledge and experience than we think any of them could have hoped for, friends with whom they had experienced something many people will never get the chance to do and a sense of surety that, not only did they love STEM, but were extraordinarily talented therein.

We were encouraged to act as role models for the Taungana Ambassadors and to share with them our own personal experiences and achievements within the STEM fields. We cannot, however, imagine that the Ambassadors learnt as much from us as we did from them. Taungana succeeded in giving all of their Ambassadors an experience they will never forget and an opportunity that, unfortunately, is afforded to too few girls both in our country and in the world, which was presumably their goal. In the process, however, the members of Taungana also managed to convince us even more of why it is so necessary to have programmes like this that empower girls and give them the tools they need to succeed in life.

It is not entirely possible to describe in words what Taungana do for girls around Africa, or what they have, in the process, done for us. We can only hope that more people take the time and effort to empower girls and ensure that they know and have a chance to explore their abilities in STEM. Through workshops, project development, internet courses and all of the other things that make up Taungana, Sandra and her colleagues have managed to give us and all of their Ambassadors a taste of empowerment and a set of skills needed for every girl to be a success in whatever field she wishes to pursue.



*Our fabulous peer mentors are in Grades 10 & 11 at Crawford Sandton*



# Ambassador Reflections



*Aurecon taught me to bring my ideas to life.*

– Catherine Sinambili, 2016 Ambassador,  
Kasempa, Zambia



*I actually learnt a lot with a link to my STEM subjects and I think I would use to implement more of my projects to come. I will also not keep this information to myself but I will also spread it to my community members and other girls who have the potential to change their community.*

– Tanyaradza Kajese, 2016 Ambassador,  
Masvingo, Zimbabwe



*I am walking away with two awards based on my (project) pitch but most of all I am walking away with knowledge and a skill that can never be taken away from me. The accommodation and the hospitality were the best. I enjoyed being with people from different cultures speaking the same language - 'STEM'*

– Alwaba Xotyeni, 2016 Ambassador,  
Eastern Cape, South Africa



*Being a Taungana Ambassador is a very great thing. I have learned many things like design thinking, ideation; but what I liked the most is the proof of concept and the finance practicals.*

– Polite Mawelele, 2016 Ambassador,  
Mpumalanga, South Africa





*"Taungana is a movement that empowers rural African high school girls with the opportunity to access and explore the fields of science, technology, entrepreneurship, engineering and math - STEM."*

**Taunganafrica**  
empowering girls through STEM

