



# Progress Report

# 2015



The EcoBrick Exchange



I dream of a future  
with children no longer playing in the streets,  
for them to have a safe place to learn and play.

Blommie Nontshinga, Teacher



Watch this and other EBE-Videos  
on YouTube. Search for  
keyword: "#imagineEBE"

# Dear kind supporters, fellow EcoBrickers and friends

We are happy to introduce the EcoBrick Exchange's Progress Report 2015. It is the first of its kind and is intended to be a resource to present the status quo of our work, share information we gained in the process, and foster critical discussion to improve the way we work. With this publication we have set ourselves the ambitious goal to not sweet-talk our projects, but rather highlight challenges and needs to engage you, cherished stakeholder, in our work!

We are at an important stage in the journey of our not-for-profit, non-government organization. The previous two years were characterized by innovation and invention, by learning, training and by raising awareness. The developments and especially the support by an incredible amount of people by far exceeded our expectations! Most recently we have even received international recognition, when we were awarded with the UN-funded SEED-Award in Nairobi, Kenya.

The non-profit sector uses some fancy buzzwords, which all seemingly characterize the way we work: We strive for sustainability. We are committed to community engagement. We aim for capacity development and job creation. These are all important concepts, for sure. However, what we have learned at the EcoBrick Exchange (EBE) is that we are touching lives. By establishing ourselves as a development organization, which offers novel and innovative construction solutions whilst providing community support for (underprivileged) communities we have tapped into a niche. Now we have a responsibility to meet an enormous demand and expectations.

For the past two years we have asked you to believe in our vision. We have asked you to believe - with us - that we can up-cycle plastic waste to build not only a school, but also the world's largest EcoBrick building in Walmer Township in Port Elizabeth, South Africa. It took us the past two years to put structures into place, to test, change, re-test, confirm, assert, advocate and mobilize to ensure that the building materials we propose for the construction are safe and meet all legal requirements. In this publication you will find ample information on this process.

In conclusion we would like to address the fact that our construction will also cost money. With this report we hope to gain your trust and motivate you to either join hands with us or contribute some money at your convenience (Banking details are at the end of this publication). Either way, we would be delighted to receive your support! A small sample calculation: If 6.000 people gave as little as 150 Rand (or 10 Euro / 10 Dollars), we would be able to start construction immediately.

Now we would like to invite you to get in touch with us using social media, electronic or regular mail. Your opinion, questions and suggestions are important to us!

Happy EcoBricking from all of us at the EBE!

Sincerely,



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# EcoWhat?

## Terminology and Approaches

For the past two years we, at the EcoBrick Exchange, have worked with EcoBricks, EcoBlocks, established Swop Shops and Drop-off points. While this is part of our daily routine, it is important to us to bring you up to speed. We would like to ensure that this Progress Report is not only holding us accountable for our work, but also provides you with vital information to gauge for yourself really how innovative and beneficial our approaches are.

### What is an EcoBrick?

EcoBricks are PET-bottles filled with compressed, non-recyclable plastic waste. Especially in developing countries and in emerging economies there are very limited or even no capacities to recycle plastic. Therefore, EcoBricks provide an opportunity to clean the environment of litter by reducing the amount of waste going to landfill. EcoBricks provide a low cost building material as they have high insulation value. The beauty of this “technology” is that anyone can make them and they promote recycling habits in both high- and low-income communities.

the EcoBrick Exchange, we use 2-liter PET-bottles. Furthermore, you should source a stuffing stick. Bamboo, dial, or wooden spoon should do. Unrecyclable plastic waste, sadly, should not be too hard to come across and collect for this exercise. Most common non-recyclable plastic waste that is used is laminated paper, photos and transparencies, polystyrene trays, plastic fruit punnets, silvery packets (chip, chocolate, etc.), PET trays, dogfood bags. Lastly, even though EcoBricking is highly addictive, get a good portion of determination - it's really the getting started that can be a challenge. Each EcoBrick should be stuffed and tightly compressed with the plastic waste.



**EcoBricks come in different shapes and sizes. Each one should weigh roughly 500g and be tightly packed with non-recyclable plastic waste**

The EcoBrick was first used by a German lady, Susanne Heise, in Guatemala. Similar projects exist in Columbia, Nigeria, the Phillipines - and, of course, there is us: The EcoBrick Exchange in South Africa.

### How to make an EcoBrick?

To make an EcoBrick you need a bottle. Any size would work, but to make construction easier, at

A finished EcoBrick weighs between 400 and 600 grams. Filling one EcoBrick in a two-person household takes about a month. Rest assured: EcoBricking is an extremely calming exercise and highly satisfying. When finished with your EcoBrick take a moment to boogie and celebrate your accomplishment - but don't grow too attached to it: We will need it for construction!

## What is the EcoBrick Exchange?

The EcoBrick Exchange is a registered non-profit, non-government organization in South Africa. The organisation's primary focus is to make use of the EcoBrick technology, introduce recycling habits and raise environmental awareness. Our idea is to continuously improve the way we use EcoBricks in modern architecture and even find new uses for them.

Our mandate is to build schools and community centers. Since these are communal buildings it allows us to include communities as a whole. EcoBricking is a labor-intensive process and requires broad community engagement. As a social and entrepreneurial endeavor we see it as our task to mobilize and unite people from different socio-economic backgrounds, for only together we can achieve this challenging task. To realize this we have set up various tools to identify, promote and activate the beneficiary community (currently the Penguins Learn & Play Center in Walmer Township, Port Elizabeth). The most important tools are the monthly Swop Shops and continuously active Drop-off Points.

## What are Swop Shops and Drop-off Points?

Our Swop Shops are held in the Township at the Penguins Learn & Play Center. It is a monthly event where the whole neighborhood is invited to bring EcoBricks for exchange of second-hand clothing or toys. "Prices" range from five EcoBricks for a pair of shoes to one EcoBrick for a T-Shirt. We have even had Bicycles (20 EcoBricks) being traded. By now the whole community is aware of these events and comes prepared: Regular EcoBrickers come with wheelbarrows full of EcoBricks and arrive early to have the best chance to choose from a broad variety of clothing.

The Drop-off Points are catering for other neigh-



borhoods in the city but also offer an incentive to participate in the project. Numerous local business partners have agreed to offer a 10% Discount on purchases at their store to anyone who drops off an EcoBrick. Among the participating businesses are hardware stores, nurseries, and language schools. Some restaurants have also offered a free coffee to EcoBrickers. The Drop-off Points store the EcoBricks for us and we collect them once a month.

Both the Swop Shops and the Drop-off Points have contributed to the fact that EcoBricks have an added value. They have become trading commodities in Port Elizabeth. Participants are not only doing this for their own benefit, but are actively taking part in getting closer to building the Penguins Learn & Play Center.

**Our Swop Shops connect Township and higher-income communities with each other. Together they join hands to collect enough EcoBricks to build the Penguins Learn & Play Center**





**SlimBlock (small EcoBlock) ready to be used**



**Two EcoBlocks nicely linked to each other**

### **What is an EcoBlock?**

We started the EcoBrick Exchange because we were fascinated by the opportunities the EcoBrick presents. The conventional way EcoBricks are used is that they are laid down with cement poured over them to hold them in place. The problem with this technique is that alterations to a building or even its demolition result in a total destruction of the EcoBricks - exposing the collected plastic waste. That is why we sat down with some of the brightest minds in the South African construction industry and developed the EcoBlock.

An EcoBlock is the collection of ten EcoBricks joined together and held in place with a thin board and wire. The EcoBricks are placed upright and up-side-down in turn, providing space for another EcoBlock to easily fit into it. That way various EcoBlocks can be easily linked - just like Lego-Blocks.

The development of the EcoBlock presents a breakthrough in EcoBrick construction. Now

buildings using EcoBricks can be built completely dry, only using light-weight steel as a frame and fireproof boarding to safely erect lasting, unshakable and firm walls. Should alterations be necessary or the building needs to be demolished we can now reuse all materials, making the EcoBrick sustainable even beyond the point of construction.

**Blommie (left) and a Volunteer during a Swop Shop at the Penguins Learn & Play Center**



**Volunteers lending a helping hand**



# Editorial

Since its establishment in early 2013 the project-year 2014/2015 was without a doubt the most exciting and productive one. With great passion and with the support of many volunteers the directors have steered the organization towards a recognized social innovation hub, recognized for its efforts well beyond the borders of South Africa. Ilze Stegmann (Director Training & Workshops), Kinga Mnich (Director Strategic Management) and Ziyanda Mapela (Volunteer Cape Town Division) reflect on the year with its events, special occasions, challenges and the requirements in the future.



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## What was the most significant event in the past year?

**Kinga Mnich:** I think that we have had a couple of significant events in the past year: I love our Swop Shops mostly, because with the help of Blommie, the teacher at the Penguins Learn & Play Center, we manage to create playful surroundings where we can explain to the community what an Eco-Brick is and add value to it by introducing it as a form of currency. Our Swop Shop events bring everyone together. Usually we organize some food and have always enough toys and clothes, which we swop for stuffed bottles. Many people attend these events and continue stuffing bottles in smaller groups at our events. This provides us with a great opportunity to speak with the community and show them how the EcoBrick works.

**Ilze Stegmann:** Without a doubt, I can say that the most significant event was definitely qualifying for and eventually winning the SEED Awards 2015. Receiving this kind of recognition through a UN-funded program was an amazing recognition and motivates me personally!

**Ziyanda Mapela:** To me there's not just one. The EBE has given me great exposure to a lot

more than what I thought it would. What's been most significant for me with EBE is not a single event but being part of the EBE team, which has provided me with a very large platform to grow in many more ways than just one. Not only am I exposed immensely to the field I am highly interested in, being built construction and technology and how these two fields merge, but I have also been provided with platforms to grow and become a young professional - having not even obtained the qualification just yet. The EBE has had me believe in myself in many more ways than just one.

## Can you remember a particularly emotional moment in your work with the EBE?

**Kinga Mnich:** The day I visited the Penguins Learn & Play Center during a rainy week, half of the floor of the school was flooded. The following weeks were just as horrible: every time we entered the school the floor and parts of the shack were smelly and during these winter weeks many kids had a cold. These moments are always very difficult because we are trying to do our best and build the school as quickly as possible, but we had to overcome many obstacles and currently we are working towards a big fundraising campaign in order to be able to start the building process in early 2016.



**Ilze Stegmann:** It happens every time we are at an event, workshop or Swop Shop at the Penguins Learn & Play school. At the end of a day, after interacting with the children and the community, I feel really whole. I really love the connection that we have with our local community teacher, Blommie, and the children at Penguins.

**Ziyanda Mapela:** I'm not one for being very emotional. However, the support I received from the EBE team after being attacked near my home was immense and that just filled my heart with so much joy and appreciation for the people I am working with. Another moment that I do recall for myself would be getting recognition for the work we're doing from the Cape Town communities as well as schools in both Port Elizabeth and Cape Town.

### **What were the biggest challenges for the EBE and how did you handle them?**

**Ziyanda Mapela:** The biggest challenges for the EBE right now would have to be the lack of human capital, financial resources and logistics. How we handle and overcome these challenges is by working even harder than what we have in the past, in trying to fill the 'empty positions', communicating and being able to rely on one another.

### **Students at an EcoBrick Workshop at our partner organisation Masifunde Learner Development**

**Ilze Stegmann:** The biggest challenge for the EBE thus far is setting unrealistic expectations for the completion of our pilot project, the Penguins Learn & Play School in Walmer Township. The best way we have tried to handle this is to get to a point of acceptance and understanding of our limitations but then also focusing all our efforts towards realizing this vision. The fact of the matter is that, despite some naturally occurring challenges, the Penguins Learn & Play School will be built!

**Kinga Mnich:** The biggest challenges were the municipal approval and the fundraising. The first challenge is being handled by our architectural partners and the second by us. We started building a bigger team and are working on some support structures.

### **How was EBE perceived in the beneficiary community and beyond?**

**Ilze Stegmann:** I think the EBE is still viewed with some skepticism by the immediate community—particularly the parents of the children who attend

the school. We have had EBE workshops, EBE information days and been able to show the community our vision we have for the Penguins Learn & Play school with architectural drawings and plans. I realize now more so than ever, that the people need to see this project come to life. We had had immense support from the community at large in Nelson Mandela Bay - so many people have adopted the EcoBricking habit and as a result, thousands of EcoBricks have been created and collected in a very short period of time. People from Johannesburg and Cape Town have asked us to extend our initiative to their cities, however, we just do not have the capacity at this stage. Our Swop Shops and EBE workshops in Walmer Township gave us an opportunity to show people how much non-recyclable waste can be fitted into a 2-liter plastic bottle; How by taking the time and effort to stuff an EcoBrick - what impact it has on the immediate environment. More so, we also showed the community in drawings, examples and pictures - the possibilities of what can be created out of EcoBricks.

**Ziyanda Mapela:** I was not around when Walmer Township was notified of being the benefiting community. However, as I have gotten to know the community and conversed with the residents, I've come to find that the Walmer community appreciates our efforts and being involved in and being notified of the processes leading up to the building of the school. I know that the community members are excited by what's to come - the reception is amazing.

**Please describe the impact of the most significant milestones achieved.**

**Kinga Mnich:** Achieving the municipal approval to be allowed to build on the boundary line made the whole community very happy. This allows us to make the school bigger and will help the teacher, Blommie, to have more children in her school. Children that will get to learn better English and will be better prepared for further schooling.

**Ilze Stegmann:** Indeed, the most significant milestone achieved is definitely the progress we have made at getting our EcoBrick construction approved. All the processes take time and we are making headway slowly but surely.

**What can we expect from the EBE in the year to come?**

**Kinga Mnich:** We are hoping to be able to build and finish the school, but also to create a lot of amazing small projects for schools and other NGOs, like building raised beds and building benches for schools. In addition, we are currently working on a learning platform that can be used by teachers. We hope to spread environmental awareness across South Africa and from there to the rest of Africa.

**Ziyanda Mapela:** I think we can expect great things. As we're moulding the organisation now, I myself am excited by what is looming!



Involving the community at a Swop Shop in Walmer Township. Roughly 600 EcoBricks get collected each time

A new narrative  
for those who  
need it  
most

#imagineEBE





**Penguins student with EcoBricks piling up in the background**

**EcoBrickers outside of Penguins Preschool in Walmer Township**

# EBE-Flagship Project: Penguins Preschool



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Many people have asked why we chose Penguins Preschool as our pilot project. Reasons were numerous and to sum it up: It was a perfect fit! We set out searching for a preschool with a strong leader at its helm, one that needed support and that was backed by an active community. Through previous involvements in Walmer Township we had heard of Blommie Nontshinga and her Penguins Learn and Play Center before. We decided to hold an event within her premises and it quickly became quite clear that Blommie was simultaneously a key opinion leader, a force to be reckoned with and a mother figure to all of the 50 students that she gathered under her wings. Most importantly, she believed in the vision we laid before her with such fierce determination that her entire community was quick to follow suite.

Why have we undertaken the challenge of approving a double story EcoBrick building and raising the funds to construct it? A question that we've asked ourselves many a time and always been able to answer with conviction. South Africa has some of the strictest building regulations on the African

continent. Additionally to the laws pertaining to construction there are legal statutes and minimum requirements for schooling facilities, which we had to comply with. Above all, we believe that gaining approval to build in this innovative way will open the path for many to follow. Many who'd like to protect their environment; many who'd like to occupy insulated spaces; many who'd like to create affordable community centres. Once constructed, the Penguins Learn and Play Center will be the largest EcoBrick building in the world and be a beacon of innovation and environmental awareness.

Our close collaboration with architects, engineers, lawyers and other members of the construction industry has been pivotal to the progress we have made thus far. Here's our list of milestones that describe our accomplishments and where we are now:

## 1. Contact formation with preschool owner

We believe in reciprocation and in order to get going we first needed to clarify what we would expect from the Penguins Preschool community in return for our efforts. A contract with Blommie was drafted and signed, which outlines the EcoBricks responsibilities until the finalized construction and Blommie's role going forward. The school will continue to serve as a hub for EcoBrick collection and knowledge sharing.

## 2. Source title deed

Lawyers were appointed to achieve a new property title deed in order for our architects to proceed with the application.

## 3. Appoint Architects and Engineers

In order to develop a method of using EcoBricks that accommodates the South African climate and municipal regulations, both Architects and Engineers were required. The Workplace Architects were easy to appoint given their extensive role that they've played in the EBE's development. The firm recently amalgamated with Stauch Voster Architects (SVA) International and now operate under this name. The local office of the Aurecon Group has donated their services for the majority of the required engineering. Together we've innovated the way EcoBricks are used:

Together we developed the EcoBlock, which is a constructional revolution considering that it allows for completely dry construction processes. Additionally, we designed a 'wall sandwich' that is water and fire resistant, 100% recyclable, low cost, and extremely insulating.

## 4. Acquire client's approval on proposed design

The design brief was to accommodate the school, playground and teacher's dwelling in an appealing manner. SVA's Bryan Wintermeyer felt that it was important to keep the original house structure, as it would be wasteful to destroy it. The school is comprised of several break away spaces, two toilet blocks, storage areas and a main gathering space, which opens up to the playground. Aligning the new building component with the back and side boundary meant that more of the site could serve as the playground space. Creating an additional level for the teacher's dwelling provided a sense of privacy that Blommie and her family currently lack. Whilst the dwelling is compact, clever use of stack away beds allowed for a generous living space. The proposed design not only meets the requirements of the brief, but also offers a densification solution to the RDP housing scape.

## 5. Acquire communities' consent for alterations

The proposed alteration had to be approved by all of Blommie's direct neighbours in order for the submission to be permissible. The community at large was also given an opportunity to object as the alteration was broadcast in the community

# The Design of Penguins Learn & Play Center



**The construction plans for the school are ready. This simulation shows that the final building will look in the end like any regular brick building**

newspaper for a number of weeks. The fact that no objections were made simplifies the approval process considerably and illustrates that our work has also been widely acknowledged by the local residents.

### 6. Achieve land use consent

In order for a preschool to function in a residential area special consent is required. Achieving this is similar to rezoning a property and the procedure is nearly as lengthy. The promised six weeks waiting time turned into six months despite our attempts to expedite the process. This was a big accomplishment as ERF number 2267 of Walmer Township (Blommie's property) can now legally function as a preschool.

As described, the EcoBrick Exchange and Penguins Learn and Play Center have come a long way together. There are, however, several milestones, which still have to be achieved in order to begin the construction:

### 1. Permission to build upon the boundary line

The Nelson Mandela Bay Municipality recently announced that they are in the process of forming a new Committee that will be responsible for approving all alterations that encroach upon building lines. We have been told that this committee will start accepting applications some time in November but as it's a new entity we can't predict how long this approval might take. Members of the municipality have estimated that the process should not exceed three months.

**The current school is a simple brick building with a shack in the back**

### 2. Full Municipal Approval

Once we have the boundary line approval we'll be able to submit the proposed alterations to the municipality for approval. This process normally takes between four to eight weeks.

### 3. Raise project funding

RPM Quantity Surveyors have undertaken to prepare a Bill of Quantities and project cost estimate for this alternative construction project. With this in hand we'll be launching a multi continental campaign to generate the remaining funds that will be required.

### 4. Construction Consortium formation

This is a collection of experienced members of the building industry and community representatives. It is not normal for such an entity to be formed in order to construct a building of this size, but we feel that it will maximise the communities' involvement and minimise the risk of unrest. The Consortium will be responsible for allocating jobs to capable applicants as well as ensuring that the communities' interests are protected.

In closing we would like to point out that there have been challenges to overcome and there are surely more on our horizon. However, we take pride in a wonderful working-relationship with Blommie and the students of the Penguins Learn & Play Center, our own tenacity and the strength from our determined team of professionals. Thank you for your support thus far and we look forward to your company on the journey that lies ahead of us to construct the Penguins Learn & Play Center.



# International recognition: EBE in the limelight

2014 and 2015 were without doubt years of networking for the EBE. Instead of speaking our own voices, we were recognised and boosted by a cluster of nurturing people and organisations. We are grateful for the opportunities that have arisen and by far exceeded our expectations. These opportunities, in a way, have become the fuel underneath our fire...

**PARTICIPANT / World Design Capital:** 'The backside of design' - a term we were affectionately given by the trendy design folk of the prestigious, year long festival. Instead of creating pretty things, our submission entry appealed to the selection committee as one that leaned upon design as a vehicle for change.

Our position within the 'Sustainable Solutions' section gave the EBE access to a wide range of opportunities at this event in Cape Town:

- Kathy English Brower, a personal Business Coach, was assigned to guide our enterprise through a series of one-on-one sessions, which brought a great deal of clarity and direction.
- The Events Management training included in this opportunity came in handy ahead of the Open Design Festival (see section below).
- Media opportunities and international recognition were significant benefits of our involvement and shared the EBE's story far across the design scene.

**EBE-Director Kinga Mnich at the SEED Award ceremony in Nairobi, Kenya**



- Mastering a five minute pitch to a collection of potential stakeholders was a nerve wracking, yet significant step for expanding our networking circle. It was through this process that we were encouraged to enter the SAB Foundation's Social Innovation Awards (see section below), a direction that opened a hive of development opportunity.

**PARTICIPANT / Open Design Festival:** In August 2014 we were given the opportunity to exhibit our organization at the Open Design Festival in the form of a showcasing structure. With the help of The Workplace Architects we pre-assembled the structure in Port Elizabeth and transported the components down to the festival venue in Cape Town's City Hall where we gradually erected the 'EcoBrick Star Lounge Pavilion'. The volunteer team consisted of our loyal supporters as well as numerous festival visitors, many of whom contributed EcoBricks towards the structure. The pavilion was made entirely of reclaimed materials and received much attention. The festival's media team arranged a vast amount of exposure.

**The EcoBrick Star Lounge at the Open Design Festival in Cape Town**



Three newspaper articles were published; two radio as well as three televised interviews were conducted; and three online publications were broadcasted. Together with the 7.500 festival attendees and the hoards of pedestrian observers we were delighted by the traction this festival brought about.

Since the festival the versatile EcoBlocks have developed quite a life of their own. They've been displayed at music festivals, innovation conferences, and most significantly the Design Indaba. 12 EcoBlocks were incorporated into the Take 2 Exhibition that was right in the center of the Expo. We were also asked to present the EBE and shared the stage with global designers and artists alike.

**RUNNER-UP / Social Innovation Award:** Because of our participation in the World Design Capital in Cape Town in 2014, where we were responsible for the main pavilion, we were eligible to apply for the SAB Foundation Social Innovation Awards. This initiative seeks the best ideas to enhance the lives of disadvantaged South Africans. We were blessed to get invited to the ceremony in Johannesburg and utterly taken by the fact that this competition saw us take the second prize. Not only were we able to secure 100.000 Rand in prize money, but we have also gained the support of

the SAB Foundation team. Since then we have collaboratively worked on structuring the EBE to make the organization itself sustainable, but also strategically establish mechanisms, which foster proactive participation in the community.

Besides the financial aspect of the award, the Foundation continues to scout appropriate competitions and solutions for our growth. Two successful examples are listed below

**PARTICIPANT / Red Bull Amaphiko:** Amaphiko is the Xhosa word for "Wings" and thus describes the ability that Red Bull seeks to give South African Entrepreneurs (flight). Through an extensive selection process the EBE was chosen to take part in this years ten-day incubation chamber to be held in Langa, Cape Town in November. Ian Calvert, the academy's founder, flew up to meet our team and understand the precise mentorship that we're after. The academy is but the start of an 18-month gestation period that enables rapid growth and helps overcome 'road blocks' that we may encounter.

An important aspect of the programme is to establish synergies among young South African entrepreneurs and assist them in learning from each other's journey and remain in close collaboration.



Port Elizbaeth Eco-Brickers at the Donkin Reserve on Mandela Day 2014

**WINNER / Social Gains Award:** Our first time in the Architectural competition tank, we entered Penguins Preschool in joint venture with our partners at SVA International within the 'Future Building' category. The submission process incorporated multiple forms of media including a short video and fly-through animation. Once uploaded, members of the public were asked to vote for their favourite of the 37 entries. With a staggering 2 361 votes our entry received the 'People's Choice Award' at a glamorous gala evening in Johannesburg. Winning awards prior to its construction has left us all the more excited for the day that construction ceases.

**WINNER / SEED Award:** In September 2015 we received the Socio-Economic and Entrepreneurship Development (SEED) Award in Nairobi, Kenya. SEED supports innovative small-scale and locally driven entrepreneurs around the globe who integrate social and environmental benefits into their

business models from the outset. SEED is a joint initiative by the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP) and the International Union for Conservation of Nature (IUCN). We were invited to Nairobi to attend a week full of workshops and lectures aimed at promoting and supporting the work social entrepreneurs are doing across Africa. At the end of the week a large award ceremony took place where we were officially announced as winners in the South Africa category. The prize carries a value of 5 000 US Dollars and additionally grants us the kind support of a dedicated SEED-catalyst. Together we will have workshops and get access to a global network to enable cross-boarder partnerships for action on sustainable development and green economy.

**CERTIFICATE OF MERIT / Eco-Logic Awards:** Once a year the Eco-Logic Awards highlight and honor environmental movers and shakers to promote activities in South Africa, which contribute to biodiversity. In 2015 the EcoBrick Exchange was awarded an Eco-logic Certificate of Merit.



**In the Township children participate in a Swop Shop Event, EcoBricking with their parents to exchange EcoBricks for toys or clothing**





We might not  
change  
the world,  
but we can  
change  
our lives, our  
spheres,  
**shape our  
communities.**



#imagineEBE

# Voices for change: Working with EBE



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Working with the Ecobrick-Exchange has been an exhilarating learning experience. As the coordinator of a regional organisation called the Eastern Cape Communication Forum, I am professionally and personally concerned with citizen participation in mitigating key development issues that affect their everyday lives.

In the realm of environmental sustainability, I have never been confronted with a concept that ticks so many boxes for me. Not only is the EBE project collaborative; it gets citizens on every spectrum of the LSM scale, to get involved in environmental issues; it's relevant; in a time where people are seeking creative solutions to everyday problems it allows innovation to thrive on a local level and lastly it is sustainable; unfortunately, we will, for a very long time, have the raw materials needed to build the EcoBrick, but not forgetting that in order to capitalise on this, the project is also engaging; I mean anyone and everyone can make an EcoBrick with their own hands.

Last year, I assisted the EcoBrick Exchange with one of the largest exhibitions in South Africa, the

Open Design Festival in Cape Town. With the support of the Workplace Architects we created an enormous pavilion out of EcoBricks to present the idea behind our project. The pavilion drew a great deal of attention so this year, when I found out that the EBE had won the Socio-Economic and Entrepreneurship Development (SEED) award, I thought: "Of course"!

As part of the award, I was invited to join the three-day SEED workshop set up to support the development of the EBE business plan. The three days were intense and put the team through its paces, thinking around issues of sustainability, value propositions and key stakeholder relations.

I had always been somehow part of the EBE team, in the background and rooting all the time, but after this session my connection to the team has been cemented fully and my future role and contributions concretised. In a personal capacity, I look forward to supporting the team through fundraising and communication efforts while in a professional capacity, I will continuously look for synergies between the EBE and my organisation.



Chengetai R. Chikadaya participating in an EcoBlock workshop



Anna Bergmann among other EcoBrickers after a Swop Shop

## Voices for change: Volunteering with EBE



Anna Bergmann  
Studied Geography in Bayreuth, Germany, and spent seven months in Port Elizabeth volunteering for the EcoBrick Exchange

Working with the EcoBrick Exchange (EBE) has been a marvelous experience for me. I was the first student from abroad volunteering in South Africa for the EBE. Therefore, it was a quite an exciting time for all of us. The EBE Team had to find ways to get me involved the best way and I had to learn how to find my role within the team. Just after my arrival in South Africa, one of the largest exhibitions, the Open Design Festival, took place in Cape Town. So we drove to the Festival in a bakkie loaded with thousands of EcoBricks. Together with the Workplace Architects we created an enormous stand out of these bricks to present the idea behind our project. It was amazing to see how many people were interested and very curious about the EcoBricks. Apart from that there was a huge interaction between all the exhibitors, which was due to the wide range of presented creative ideas and projects. And I was simply fascinated to be part of all that.

After this time in Cape Town we went back to Port Elizabeth and quite soon I got to know the teacher Blommie and her school kids in Walmer Township. I really loved being there and interacting with the kids. Whenever I found the time and

a possibility to get to the School I went there – to design a banner for the school, play with the children and take pictures of them for our profiling of all the community members. We also arranged a workshop for building the first EcoBlocks together with volunteers. Many people attended this event. There were students, friends of the EBE Team and many friends from the Township community. I was so happy to see all the different people with such different social backgrounds coming together and helping each other. We ate cake together and after a busy day we were proud of our achievement (see picture above).

During my stay I was involved in different fields. I was involved in fundraising; furthermore, I had to sort out issues concerning the drop-off points for the EcoBricks, create a comprehensive profiling of the school kids and attend different meetings. I also did research on various topics, such as natural building materials/methods, raised beds and so forth.

Shortly before my departure, I got involved in a project, which was about building raised beds out of EcoBricks. Unfortunately, I had to leave South Africa before seeing any real physical results.

All in all, the EBE provided an amazing and unforgettable experience for me. I have made so many friends from different cultural backgrounds and have gained so much knowledge, which makes this experience a very unique one.

The Sustainable Development Goals were adopted by the UN. The EBE is proud to contribute in a number of areas



# EBE and the bigger picture: Incorporating the SDGs

The EcoBrick Exchange is a hard-working, yet humble organisation, operating on very little funding and involving local communities in the Nelson Mandela Metropolitan Municipality. However, the past months have shown that our work is more than the mere construction of schools and community centers in underprivileged communities and it has great potential for growth, well beyond the borders of South Africa's Eastern Cape province.

This is one of the reasons why with great interest we have followed the developments that took place in faraway New York City, USA. It was there, on the largest political scene imaginable, that 193 countries came up with an agenda of how to shape development work until the year 2030. This agenda is called "Transforming our World: The 2030 Agenda for Sustainable Development". It was on 25 September 2015 that this agenda was adopted. It presents 17 overall goals, 169 specific targets, 304 indicators for success and was called: The Sustainable Development Goals (SDGs).

## Can a global framework inform local action?

Your valid question now might be: What does this tiny South African non-government organization called EcoBrick Exchange have to do with this huge humanitarian endeavor proposed by the UN?

We asked ourselves the same question, but were utterly surprised by the amount of shared links between the SDGs and our work.

Several goals are certainly at the core of our mandate and are a direct product of our work:

**SDG #11:** Make cities and human settlements inclusive, safe, resilient and sustainable

**SDG #13:** Take urgent action to combat climate change and its impacts

Among the targets for Goal 11 is to ensure adequate, safe and affordable housing, especially by upgrading slums. The EcoBrick Exchange has committed to this goal since its inception and presented an innovative building material, which is a cheap solution to build especially in underprivileged communities.

Waste management and plastic waste in particular have become a big issue in urban settlements, especially in developing countries. It is degrading the environment and poses an additional health risk in Townships and poor neighborhoods.

The upcycling process proposed by the EcoBrick Exchange makes use of plastic waste and adds value to it by making it a trading commodity.

Since EcoBricking is a lengthy process and rather labour intensive it needs capacity. Our approach is participatory, involving local communities to participate in the process. They hence take ownership over the project and actively engage in sourcing of building material as well as the further development of each construction.

By absorbing large quantities of plastic waste for our constructions the EcoBrick Exchange is directly participating in safeguarding unique natural heritage. However, our approach towards achieving Goal 13 reaches beyond this: Through presentations, workshops, training and research EBE is improving education, awareness-raising, as well as human and institutional capacity on the effects of plastic waste on the environment and climate change.

Among the indirect outcomes of our work within the SDG-framework are:

**SDG #3:** Ensure healthy lives and promote well-being for all at all ages

**SDG #9:** Build resilient infrastructure, promote sustainable industrialization and foster innovation

**SDG #10:** Reduce inequality within and among communities

By providing safe and clean environments for students to learn and play we are contributing to their physical, psychosocial and cognitive protection and well-being. Our constructions will be creating learning environments, which students look forward to go to. Schools as educational institutions are a critical element of infrastructure in reaching Goal 3 as they provide a multitude of health outcomes for children and youth.

Education provided in school can support children in handling difficult situations through routine, structure and stability. It can support identification and needs and strengthen coping mechanisms. It prevents child labour and exploitation (sexual or economical, child marriage, etc.). It provides life-saving information, such as access to health care

and food, how to prevent sexually transmitted diseases (e.g. HIV/Aids). It also provides critical water, sanitation and hygiene promotion. Lastly, schools provide an entry point for future education and awareness raising campaigns.

## We believe we can measure our success along the SDG framework!

Despite emerging economies and increasing industrialization in developing countries there is currently no solution of how to handle plastic waste. Compiling this waste into architectural structures is certainly not a panacea for all problems - but it offers an innovative alternative to landfill and toxic land degradation. Within the two years of this project, the EBE has not only innovated the way EcoBricks are used, but has also supplied a platform for creative brains to continue innovation and develop more avant-garde uses of plastic materials - especially in architecture.

As mentioned before, the EcoBrick Exchange pursues an inclusive approach and connects communities from all economic backgrounds to make projects a success. Such “Blended Communities” contribute to a reduction in inequality within the recipient communities and make them more resilient by developing skills, creating job opportunities, reducing negative health impacts and fostering sustainable collaboration.

It has been stated by scholars and practitioners alike that to be successful in reaching all of the proclaimed targets of the Sustainable Development Goals a focused and combined effort is needed. The EcoBrick Exchange is a small civil society organization, but we are willing to measure our success in the years to come along the framework of the SDGs. We therefore invite individuals (large or small), industry leaders, interest groups of all backgrounds, universities and politicians to follow our efforts, ask critical questions and help us achieve social change in a sustainable manner.



Blended communities, sustainable innovation

#imagineEBE



# At a glance: NUMBERS & STATS

<b>1) Donations and Grants</b>	
a) Donations received	119 131
b) Crowdfunding	21 800
TOTAL	140 931 Rand
<b>1.1) Pledged Donations Outstanding</b>	
a) Donations Pledged in South Africa	90 000
b) Donations Pledged Internationally	65 000
TOTAL	155 000 Rand
<b>2) Project Cost</b>	
a) Workshops & Events	12 410
b) Logistics & Materials	32 478
c) Contractor Salaries & Fees	30 196
d) Project Marketing	2 971
TOTAL	78 055 Rand
<b>4) Labor Cost</b>	
a) Expense Allowances	36 000
TOTAL	36 000 Rand
<b>5) Other Operating Costs</b>	
a) Bank charges	2 218
b) PR & Marketing	10 000
c) Other	1 819
TOTAL	14 037 Rand
<b>6) Interest And Other Returns</b>	
TOTAL	0 Rand
<b>7) Surplus Funds</b>	
TOTAL	12 839 Rand

# And even more: NUMBERS & STATS

# 4.8 tons

Amount of plastic waste the EcoBrick Exchange has collected in a total of 12.000 EcoBricks since 2013.

## 20 000

People reached through national expos / design festivals

## 10 000

School children reached through talks and workshops

## 6 000

Port Elizabethans involved in talks, workshops, presentations

## 1 700

Follower on Social Media, peak post reach: 25 000 people.

## 150

Volunteers involved in the past two years

## 500

People in Walmer Township involved in regular EcoBricking activities

## 300

Family members of the students activated

## 100

Students (past and present) engaged

## 100

Neighbouring community members attended workshops

## 50

Construction experts engaged in technology development

## 50

EcoBrick Embassadors (regular and proactive volunteers)

## 20

Architects involved in the design process and development

## 20

South African cities have expressed interest to run to launch EcoBrick initiatives

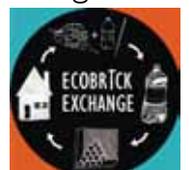
# Imagine we built a school together!



Help us make a vision reality:  
Support us by donating today and let us build  
**Penguins Learn & Play Center**  
together!

Our Banking Details  
EcoBrick Exchange  
Account: 62467526045  
Branch: 261050

#imagineEBE



# Thank you!

All of us at the EcoBrick Exchange would like to take this opportunity to thank you for the trust and faith you have instilled and invested in us. It really is encouraging and the driving force of our activities. We are happy to see that more and more people are familiarising themselves with green and sustainable living as well as educating and empowering themselves to do a lot more.

As illustrated in our activities and in this Progress Report, EBE aims to not only empower underprivileged communities and individuals but also broaden the mindsets of many through out the world to new opportunities and innovations. The EcoBrick Exchange could not have progressed and developed to this point without the help and support of communities, stakeholders and organisations.

Environmental awareness is among our top priorities. That is why printing this document was a decision we debated at great lengths. Our deciding factor was that You, our generous supporter, deserve to have all our information in your hands. It was a costly exercise, particularly towards the environment. So we ask that you make our decision worth while and share it with as many people you think will find it interesting.

Once again, fellow EcoBrickers and supporters, thank you and please, do keep on with the generous and overwhelming support!

At the EcoBrick Exchange you're not simply a donor: you become a partner!

## Our Banking Details

### South Africa

EcoBrick Exchange  
Account: 62467526045  
Branch: 261050

### Germany

CAP - Community Action Programmes e.V.  
IBAN: DE44430609676032036400  
BIC: GENO DE M 1 GLS

Media Partners:



Strategic Partners:





The EcoBrick Exchange

Web: [www.ecobrickexchange.org](http://www.ecobrickexchange.org)



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Keyword: “#imagineEBE”



The EcoBrick Exchange