

interview



**“I firmly believe that  
we should engage  
with children when they  
are young”**

In South Africa, Xoli Fuyani uses  
worm farms to teach 5-year-olds  
about the planet

**Xoli Fuyani, 38, works for the EarthChild Project, an NGO based in Cape Town, South Africa, that teaches students in marginalised schools about health, self-development and the environment. She founded and runs an environmental education programme that brings worm farms to classrooms for children aged 5 to 9.**  
*In conversation with journalist Pamela Druckerman*

#### How did you get involved in nature education?

I am Xhosa; I grew up in Gugulethu, one of the first townships in Cape Town. In my teens we moved to a mixed-race area, Blue Downs. It was still during Apartheid, so there was a lot of unrest. I went to a multiracial school and I was one of the very few black kids. It wasn't fun at all; it was a culture shock. That's where my love of nature was cultivated. Nature became my place of solitude, where I could be myself with no judgement.

That also made me see the disparities in South Africa when it comes to accessing nature. In Blue Downs there are big trees and open spaces. In the township, there's just no space, no trees, back-to-back homes. Waste is very visible. Most of the time when we visited nature parks, we would be the only black family hiking or camping. Because of their lack of awareness, my black peers felt that going hiking was a white thing, and not for them. I come from a family of teachers, so I just knew I needed to change that narrative and share my love of nature. I was like: I need to be a bridge.

#### You studied environmental education, then joined a government programme to teach that in schools. What was it like?

That programme was adapted from Europe, so some examples were not relevant to us. So I came to understand the importance of educating children in their own culture, using indigenous languages. It was also very fear-based, with big words like "climate change" and "hole in the ozone layer". This was freaking out a lot of kids. And it didn't seem fair to be telling children in marginalised communities, "Hey, there's this big thing happening, do something!" They're already experiencing the effects of climate change and living the future that many fear.

#### How did you come up with the worm farm project?

I wanted a fun, hands-on experience, and I wanted to work with a real-life problem that the children saw every day. The majority of the kids I work with live in informal settlements, in shacks, so waste kept coming up. Waste management is the most present issue in every township. So we set up worm farms, which are basically two plastic crates, stacked on top of each other. The top one has about 1,000 earthworms.

#### What do the children do?

The kids feed the earthworms every week. They bring organic waste from home to feed the worms, such as fruit and vegetable peelings, teabags, paper. The farm needs to be kept moist, so the kids add water. Then they watch the worms process the food into compost. This mixes with the water and drains to the bottom crate, and becomes what we call the "worm tea". Once the farms have produced enough tea, we use it to grow a vegetable garden.

#### Why start with 5-year-olds?

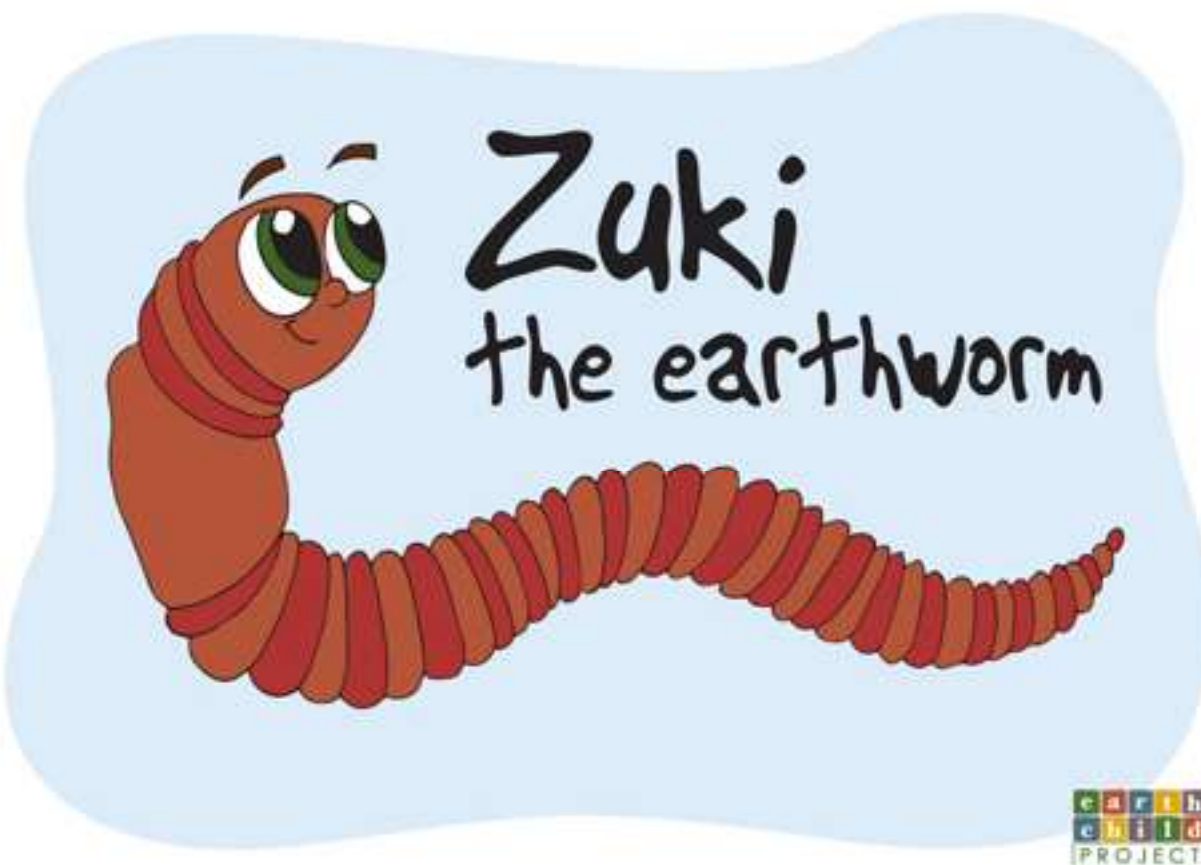
Often the programmes running in schools would exclude lower grades, because they assumed younger kids wouldn't understand environmental concepts. But I firmly believe in engaging with kids when they are young, because they grow up learning how to come up with new, practical solutions.

**"(Children in marginalised communities) are already experiencing the effects of climate change and living the future that many fear."**

#### How do they respond?

At the beginning of the year they are all so squeamish! Most kids don't want to touch the earthworms. They are screaming, the class is a mess, they are running around.

We introduce a worm mascot called Zuki, a Xhosa name. Zuki is a precious, beautiful worm that absolutely loves the kids. Her mission is to help reduce waste



to save our planet. Often the kids warm up and fall in love with Zuki, which then becomes our gateway to introduce real earthworms. They get very territorial with their worms, giving them names and personalities.

Then a world of imagination opens up. In our first lesson, “Becoming a Farmer”, the kids pledge to become the best farmers ever. Each lesson has a theme. In another, they’re fishermen, who have to fish out earthworms from the compost. They get to be worm doctors, troubleshooting problems like a strange smell. We also use sock puppets to discuss issues that come up, and we teach them about the earthworm’s body parts.

Each lesson starts with a pledge and ends with a song, usually in Xhosa. When we teach the life cycle there’s a song about two earthworms wiggling under the mud. They fall in love, they mate, and both earthworms fall pregnant – they’re hermaphrodites!

#### How does the year end?

The class harvests the vegetables and makes a big salad. And then we feed all the offcuts back to the worms. It’s a complete, full cycle for them to learn

that nothing in nature is waste. Instead of letting organic waste go to a landfill site, the worms eat it.

The programme encourages the kids to take responsibility for living things, and teaches them how to grow their own food. They learn self-sufficiency, and see that there are other ways to nourish themselves besides shopping.

#### Do you discuss climate change?

We don’t mention the words “climate change” to 5-year-olds, but we use local environmental issues to teach them about our planet.

Young kids often ask, “What can we do?” Having a worm farm in their classroom shows that they are stopping organic waste from going into landfill sites. We try to stimulate their curiosity and teach creative problem solving and reflection.

Our Worm Farming Programme is for kids aged 5 to 9. After Grade 3 they can join our extramural club called Eco-Warrior, where we explore, in greater depth, environmental issues affecting their community and school.

### What's the scale of the Worm Farming Programme?

We currently work in eight schools in Cape Town, with about 14 classes in each school. Each school has a facilitator who implements our programme – someone who's young and fun and accessible to the kids, and understands the importance of hands-on learning.

### What's next, especially for little children?

Our programme is growing; little kids are embracing it. Some have started their own worm farms at home. We are developing manuals that we'll be sharing on our website, so others can replicate our programme. A lot of what's available for kids about climate change is in English, so we hope to translate our lesson into indigenous languages.

### The worm pledge, said every day at the start of class

We've joined together as classmates  
To be the best farmers ever.  
A year full of learning  
While we become friends with  
earthworms.

I promise to feed them veggies.  
I promise to feed them fruit peels.  
Watch them mucha mucha  
As they make compost.

More worms will fill our farm,  
Wiggling all around.  
Friendships will grow  
And the tea will flow.



Photos: Xoli Fuyani

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