VEGETABLE GARDENS

OUTDOOR CLASSROOM

Experiential Learning and Regenerative Agriculture

INTRODUCTION

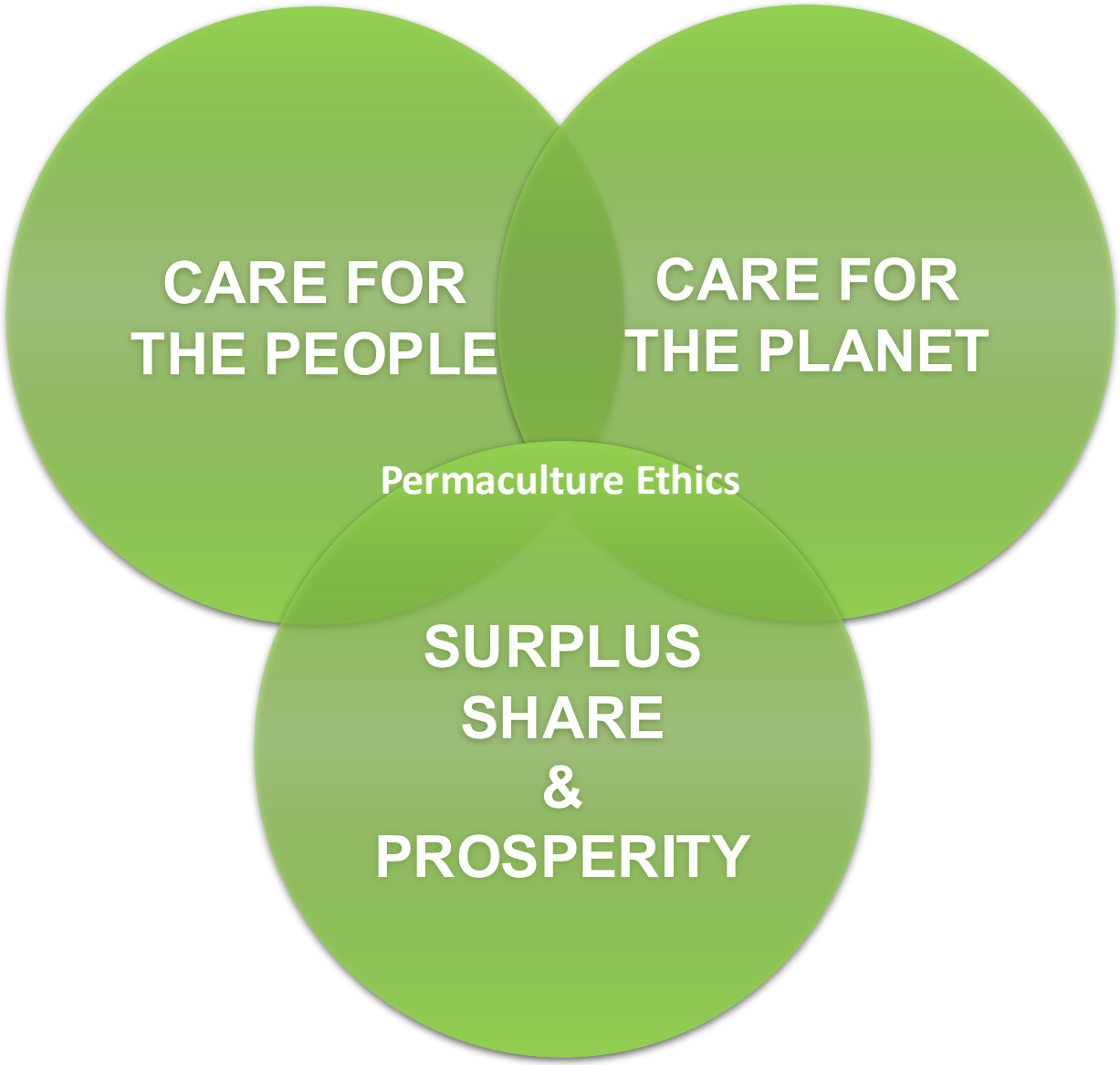
We live in a fast-changing world, facing big challenges like climate change, shrinking biodiversity, rising inequality, and growing issues with food and water insecurity. Nearly half (44%) of all land that can support life is used for farming, and agriculture also consumes 70% of the world's freshwater. What's more, the total mass of mammals on Earth is now made up of 36% humans, 60% livestock (like cows and pigs), and just 4% wild animals. In many ways, we've turned the planet into one big farm.

Ironically, even with all this farming, food insecurity is still a massive issue. In 2023, about 2.33 billion people didn't have reliable access to enough nutritious food. Around 733 million people were malnourished, and 2.8 billion couldn't afford a healthy diet. Africa is especially hard hit and is expected to suffer the most as the climate crisis deepens.

But it's not all doom and gloom. Across the globe, people are turning to nature-based solutions that actually work. These include practices like sustainable and regenerative agriculture, agroecology, permaculture, natural farming, and indigenous food systems, all of which offer real answers to today's problems.

That's why we're kicking off the Green Fingers project, a hands-on, locally informed initiative that uses these kinds of solutions to tackle food security from the ground up. The first project will launch in McGregor, a small village in South Africa's Western Cape. McGregor faces serious food insecurity, especially in the winter months when jobs in wine farming, fruit picking, and tourism dry up. Green Fingers will work with the local context and community to help grow both food and resilience.

Green Fingers is an initiative of the 2Blossom Foundation. Our focus is to provide rural children with opportunities to explore ad learn in a safe space after school. School children will learn how to start vegetable gardens and grow fruits, vegetables and potentially other plants. They will learn about agricultural systems in a playful and experimental way.



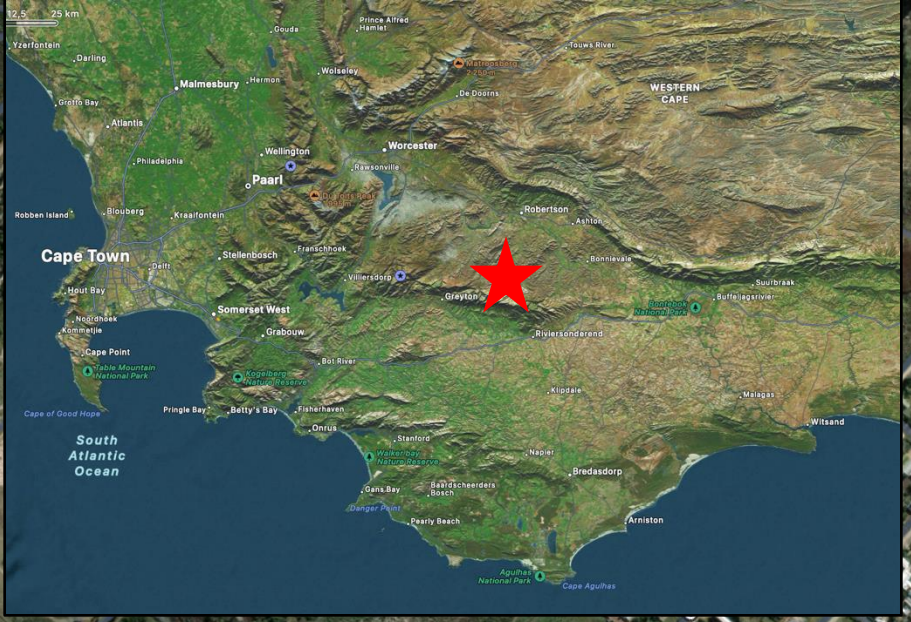
NEEDS ANALYSIS

Needs of the People:

- A space to gather, collaborate and learn i.e. workshops, training and demonstrations
- Be productive, i.e. harvest water, grow soil, food and medicine
- Access to nutritional whole foods
- A space to process harvests and prepare meals
- A place to experiment with nature-based solutions
- Income generation
- Appropriate child-based after school programs

Needs of the Earth:

- Ecosystem restoration
- Enhanced nutrient flow
- Water cycling
- Habitat creation
- Soil building
- Carbon sequestration



McGREGOR

- South Africa has a diverse history of agricultural practices and methods. Common perceptions of agriculture are large broad-scale monoculture systems that are devoid of culture, biodiversity and resilience, and are complicit in the global sustainability crisis. McGregor is an example of this.
- McGregor is synonymous with wine making and Mediterranean fruit production due to the local climate (Winter rain fall and dry hot summers) which provides seasonal employment for residents and has over many generations.
- Thus, many of the residents have agricultural skillsets and knowledge. However, most do not have access to land or resources to endeavor in subsistence or commercial agriculture.
- Malnutrition and access to nutrient dense food are some of the challenges faced by the local community.
- The Green Fingers project is for children only, but we collaborate with anther initiative supported by the Provincial Government focusing on adults producing food for themselves.
- Collaborating with the five schools in the village and on McGregor farms is critical. Green Fingers will be the hub where pupils will learn, while the schools have land to implement additional gardens.

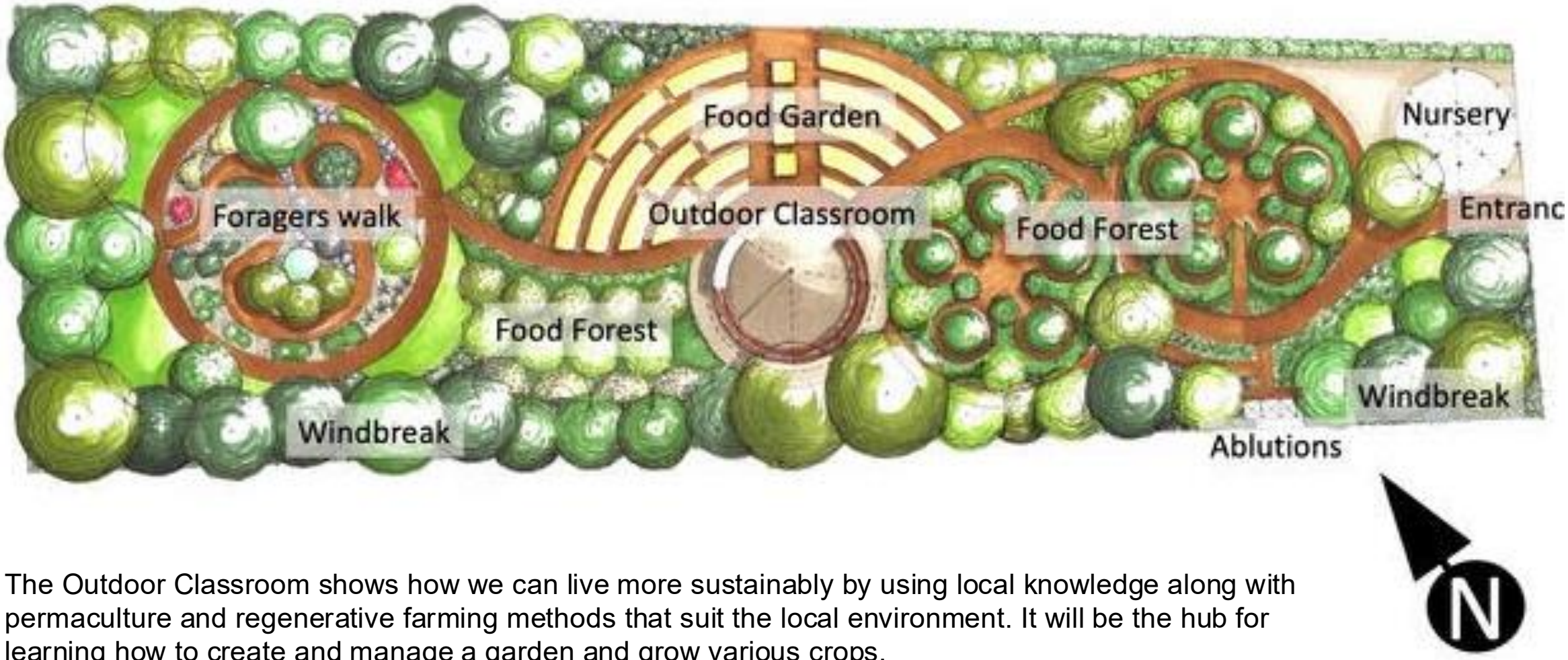
WHAT IS AN OUTDOOR CLASSROOM?

The Outdoor Classroom (OC) and learning program developed by SEED (Schools Environmental Education and Development) based in Mitchells Plain, Cape Town, South Africa serves as an appropriate example for this project.

The project requires the development of a learning space that not only provides demonstrations of productive food and medicinal plant systems but is able to host experiential learning processes.

The Outdoor Classroom is a space in which natures living library is made accessible to local children, youth and any person who seeks to learn how to design, implement and maintain sustainable, naturally productive ecosystems that supports human and non-human flourishing.

Example: Education garden design



The Outdoor Classroom shows how we can live more sustainably by using local knowledge along with permaculture and regenerative farming methods that suit the local environment. It will be the hub for learning how to create and manage a garden and grow various crops.

SITE : Kerkstraat

The OC will consist of the following zones:

Zone 0: Building

- Sheltered classroom,
- Storage
- Ablutions
- **Zone 1: Urban kitchen gardens**
- Container food gardens
- Indigenous food garden
- Mulch pit and greywater system
- Compost systems
- **Zone 2: Medicinal Garden and perineal foods**
- Medicinal gardens (according to ailments)
- Perineal food gardens

Zone 3: Food Forest

- Fruit tree guilds
- Windbreak
- Water Storage

Zone 4: Rhenosterveld, Fynbos and Succulent Karoo

- Indigenous plant systems
- Habitat
- Picnic spots/break away spaces

IMPLEMENTATION

Infrastructure Required:

- Classroom Structure: To be determined
- Nursery
- Sanitation
- Water storage
- Irrigation system
- Electrical point and lighting
- Gardens

Resources required:

- OC building materials: To be determined
- Garden retainers (wood, rocks)
- Compost
- Seeds
- Seedlings
- Herbs and perineal plants
- Fruit trees and vines
- Indigenous shrubs
- Indigenous trees
- Bonemeal
- Labor
- Plumber
- Electrician
- Builder
- Carpenter

Tools required (gardens and maintenance):

- Spades x6
- Forks x6
- Pick x2
- Hoe and Rakes x3
- Wheelbarrow x2
- Hand tools x6
- Secateurs x3
- Sheers x1
- Hammer x1
- Pliers x1
- Wood saw x1
- Buckets x10
- Watering cans 10L x6
- Measuring tape x1
- Gloves x10
- Hosepipe and fittings: x1 (30m x 20mm)

BUDGET

The start-up costs are estimated to be around R500 000 / € 25 000. This would include:

- Outdoor classroom, including equipment, toilet
- Laptop
- Soil, fertilizer and planting materials
- Stationery and tools
- Curriculum development
- Fencing and wind breakers
- Water tanks and irrigation
- Alarm system

The estimated monthly running costs would include:

• Manager / Educator	R10 000
• Accountant	R 2 000
• Rent and alarm	R 2 000
• Snacks for the children	R 1 000
• Maintenance	R 2 000
• Planting materials	R 3 000

Total: R 20 000 per month (€ 1 000)

Income options:

- Local fundraising (business and residents)
- Parents' contributions
- Sales of crops
- Offering educational sessions for residents
- Coffee shop