



Global Ecobrick
Alliance

Earth & Ecobrick Building Training of Trainers

A theory and hands-on program that will train a crew of 20-30 builders in the principles and techniques of **Ecobrick Earth Building**. This five day workshop will give participants the knowlege, skills, best practices, and leadership experience they need to lead this workshop on their own as GEA certified Earth & Ecobrick Builders.





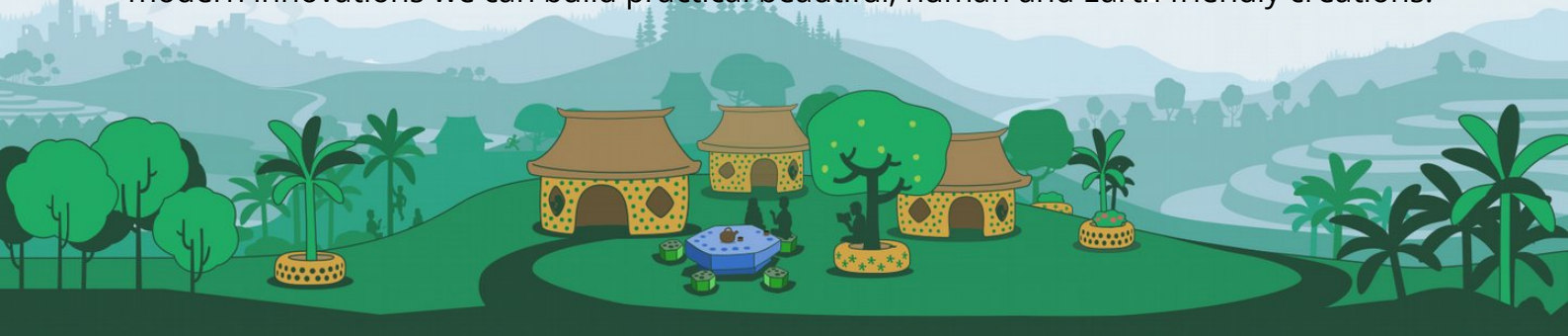
Build Green and Beautiful



Ecobricks enable people to take charge of their plastic. Ecobrick Earth Building enables people to take charge of their gardens and shelter. The techniques that you will learn to build a simple bench, will be the same you use to build the most beautiful home! Like ecobricks, there is no need for expensive outside materials-- Earth Building is all about using local, organic, resources. Like ecobricks, Earth Building works through mandalic collaboration-- the coming together of resonant folks to manifest. Men, women, young and old are invited to join our network of GEA certified Ecobrick Earth Builders.

What is Earth Building?

'Earth building', 'cob', 'waddle-and-dob', and 'adobe', are all words for the same thing: ancient building traditions using local earth and organic materials. Learning from our ancestor's tried and tested traditions we can build everything from benches, to gardens, to structures using local and organic materials. By incorporating ecobricks, bottles and modern innovations we can build practical beautiful, human and Earth friendly creations.





Start a Green Building Revolution



Upon completion of the course, Earth Builder Trainers are set to lead their own trainings. They become a certified **Level 1 GEA Earth Builders**, and are added to our [official map of GEA trainers](#). Once the the trainer has completed a full community build, they can move up to Level 2 to lead Trainer workshops like this one.



Earth building techniques work just as well with glass bottles as ecobricks.

The aim of our *Earth and Ecobrick Building Training of Trainer* program is no less than to ignite local earth building revolutions.

Using the principles of mandalic collaboration, trainers who complete the Ecobrick Earth Building ToT, will then be ready to lead this very same training in their communities. The five day program is open to up thirty main participants, and the last three days are open to 50-100 volunteers. During the first few days the main participants will learn the core techniques and principles both through classroom discussion and hands on work. During the last two days, they will lead the volunteers in the same training process, and together we'll build and complete an Earth and Ecobrick project.

Our five day program is ideal for regions where ecobricks have already spread widely and where there is an abundance of experienced ecobrickers and thousands of ecobricks. The program focuses on assembling a team of Earth Builders who can return to their community groups, schools, NGOs and companies, and put to use the hundreds of ecobricks that they have access to.

The program combines theory and practice in the planning, making and realization of an Earth and bottle construction. Participants will leave with their hands and cloths dirty, and their minds and imaginations opened to the exciting building possibilities that await them at home. They will leave skilled, confident and certified to lead their own trainings and builds back home.



A Training & A Project

The best way to learn earth building is to your hands dirty. The best way to learn how to lead a building project, is to lead one with dirty hands.

The ToT is both hands on and theory. Together, we will together see a small project through, experiencing each element of the process. Each participant will experience being a collaborator and a project leader. Each day, will begin with theory, and conclude with down and dirty practice.

By necessity, the project must be small enough that it can be completed in five days. The training will cover four main areas:

- 1. Mandalic Collaboration:** The principles behind the collaboration model of earth building and ecobricks.
- 2. The Ecobrick Essentials** A review of the core techniques and theories behind ecobricking.
- 3. Principles of Earth Building** We'll go over the essential principles and benefits of cob building.
- 4. Project Design and Preparation:** Together we'll design and prepare the project of your choice.
- 5. Hands on Building** We'll build an earth and ecobrick project together, experiencing laying the foundation to finishing.
- 6. Leading an Earth Collaboration** Participants will learn how to lead and orchestrate a build. Each participant will present to and lead a group of volunteers, then receive feedback from the trainers and their peers.



Jane Liwang started by building a bench from bottles and earth, then she rebuilt her whole house! See the [documentary](#) on ecobricking and cob in the Northern Philippines.



Need a Green Space built?

The program is an opportunity to complete a project supervised and designed by a GEA Earth Building Trainer.



25 Participants – 200 Collaborators!



Ecobrick Earth Building works on mandalic principles of collaboration. Every task in the process is simple and accessible – even for school students-- making the collaboration accessible to anyone. From mixing clay by foot, to making cob balls, to picking up stones, it makes it easy to involve dozens to hundreds of people in a build.

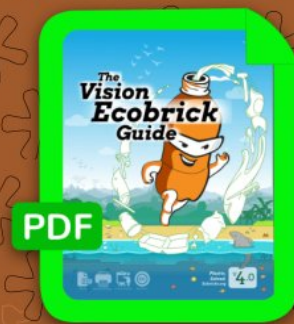
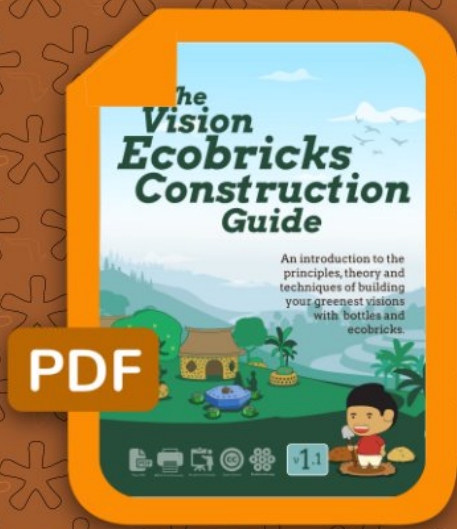


Applied Mandalic Collaboration

Ecobrick Earth Building is fundamentally different from traditional industrial building. In Industrial construction projects, a hand-full of experts lead the build-- special skills are required for all the components of the work. In contrast, our Ecobrick Earth Building methodology widely disperses the labour. The process is designed so that each element of construction is simple enough to be accessible to just about anyone. In this way students and community members can help build the playgrounds and gardens and even homes that will be their own. The process, what we call 'mandalic collaboration' is a life-changing experience of inter-generational collaboration. The result is a construction that everyone takes deep pride and ownership in.

During the workshop, main participants learn the art of mandalic collaboration. We thus encourage you to involve schools and other large groups during days 3, 4 and 5. Providing there is enough physical space around the construction for everyone, hundreds of volunteers can be accommodate and put to work. The workshop trainees will then each have the important experience of orchestrating and leading a mandalic collaboration.

GEA earth building techniques draw from the ancient and modern sources-- from cob and adobe traditions, to the modern 'EarthShip' and bottle building movements. We focus on *tiny* projects that can easily and inexpensively be replicated, yet that contain the all core concepts and principles for full structural builds. In this way the building of a simple earth and bottle bench will point the way to building a full wall or structure.



Our Resources, Your Resources

The Ecobrick Earth Building methodology has been crafted over a decade of trial and error. Trainers will have full access to our videos, PDFs and app resources to facilitate the dissemination of best practices and core principles.

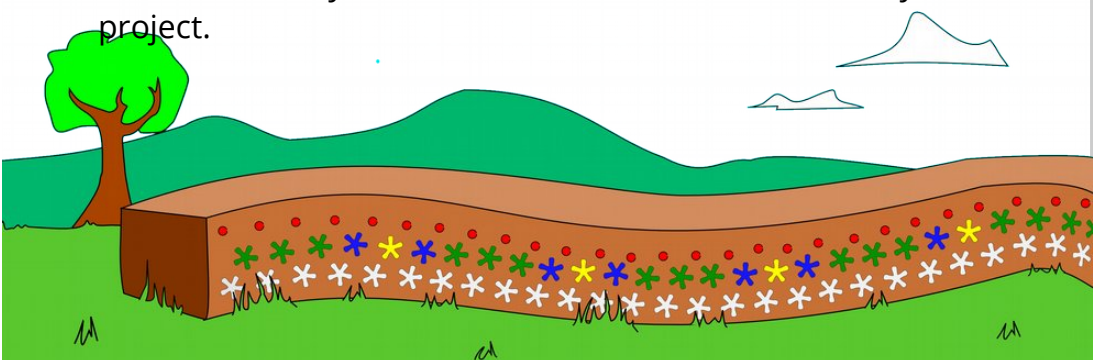
During the training we will lead trainees through our *Vision Ecobrick Construction* guide, page by page. We'll also introduce them to our *The Vision Ecobrick Guide*, and the presentation *Plastic, The Environment and Ecobricks* and our forthcoming presentation *Earth, Bottles and Building*. These resources are the backbone of the training curriculum and ensure that the fundamental principles of Earth Building and Ecobricking are picked up by all.

Also during the training, an evening session of Ecobricking will be facilitated by a GEA Trainer. Trainees who have not yet learned proper ecobricking technique will have a chance to learn first hand.

Trainees will also learn how to use the GoBrik app to manage their community's ecobricks and mobilize a community project.



Our GoBrik App helps trainers to mobilize ecobricks for Earth Building projects.





Sessions & Curriculum

Prep

Prior to the workshop, the site must be cleared, the clay must be dug and soaked, bottles and ecobricks sourced and delivered, and the project design agreed upon.

Day 1

- Class room: Introductions
- Class room: Introduction to Mandalic Collaboration
- Class room: Presentation by trainers: Earth, Bottle & Ecobricks Building
- On site: Soil testing of all participants earth samples from their communities
- On site: We will review the construction site and prepare for construction.

Day 2

- Classroom: An overview of the construction process
- On site: We will complete the project's foundation.
- On site: We prepare the cob, ecobricks and bottles.

Day 3

- Coffee and Theory: Stories and discussion
- On site: We will complete one full segment of the build
- Artistic: We will lay the out render and tiles on the first segment
- Coffee and Discussion: Participants come up with a build idea for their community

Day 4

- Auditorium: The volunteers arrive. The trainers welcome and we divide into groups
- Classroom Practicum: Trainees lead the presentation to volunteers
- On site: We all go outside and begin working on the build in teams.
- Dinner: Trainee dinner together, afterwards circle discussion on the experience.

Day 5

- Coffee and Discussion: Trainees organize the days work schedule.
- On site: Volunteers arrive and we complete the build
- Classroom: Volunteers and trainers have a chance to discuss the experience
- Auditorium: Certificates awarded to trainers

Completion

During the construction all elements of the building process, from design, to foundation to finishing will be experienced and learned. We will complete a segment of the project, and allow a portion to remain incomplete for volunteers and trainers to continue. The trainers will be on hand the sixth day for a final inspection and guide your community team on the completion of the project. Volunteers and trainees may opt to stay to assist the full completion.



Participants, Preparation & Costs

**ToT Cost with Advanced
EarthBuilder Trainers
25,000,000 IDR**

+ travel and staying
expenses for two GEA
trainers



Scheduling & Project Plan

Please contact us to arrange the scheduling of the event and to choose a suitable project. We suggest scheduling 2-3 months in advance to secure keen students and to prepare for the project.

The following workshop and participant preparation are required in order to maximize the the project, and learning experience.

Organizational Preparation

- 25-50 participants
- A venue near the project site with an indoor classroom + projector, screen and sound system
- Site, earth, and project consultation with trainers
- Locations nearby where participants can stay overnight.

Site Preparation

- 500+ Ecobricks, 100+ glass bottles
- The project site needs to be chosen and cleared.
- One truck load of sand, and five bags of cement
- 5-6 Shovels, two wheel barrows, 3-5 large tarps,
- Three sacks of straw (or a comparable stringy organic binder)
- A source of local clay/earth
- A pit for soaking the clay (ideally some clay is presoaked)
- Three hand held glass cutters, candles and buckets.

Trainee Preparation

- Attendees must have ecobrick experience, i.e. completed an ecobrick starter workshop, ToT, or online training course
- Must bring a bag of clay/earth from their community for testing.
- Must bring one of their ecobricks and have a GoBrik account
- Trainees will be given a pre-course preparation kit.

Snacks and meals

- You will be responsible for providing the meals and snacks for the participants
- Please avoid using plastic to serve food. Reusable dishes that can be washed by participants is ideal.
- Fresh local food, filtered local water, and local fruits is ideal



Ecobrick Food Forest Play Parks

The GEA recommends starting small with your first ecobrick build. Gardens are ideal! In so doing, you can put our ecobricks to use, involve everyone in the construction, minimize costs (no need for engineers) and learn the core principles of earth and ecobrick construction through experience

Mandala Earth Bench



We suggest you have a minimum 300-500 ecobricks ready for a large circle bench in which we can plant a symbolic tree.

By far the best application for ecobricks is for the creation of community greenspaces. Our Training will focus on completing a **circular ecobrick bench** for the growing of a tree. This construction will incorporate all the core techniques of earth building, from foundation, to finishing.

Ecobricks make beautiful gardens where we can sit, play and eat. We call them Food Forest Play Parks. Given that most of the plastic we stuff into our ecobricks comes from food packaging, building gardens that grow non-packed food, is pretty apt! This space are created by curving lines of bottles that are laid horizontally. The resulting mini-walls, make great benches and garden bedding walls. Oh... and you can run around and play tag on them too!

Food Forest Play parks are ideal for schools. Teaching children to grow their own food is categorically the most valuable skill we can impart to the next generation. Self-sufficient personal and community food production (as opposed to giant mono-crops) is essential for preserving the Earth's biosphere. Because earth and ecobrick building is so low cost, and the technique below so easy, students and youth groups can take charge of the full project- from making the ecobricks, to designing the space, to building it. This creates a sense of pride and ownership that is hugely empowering.

Best of all, the earth and ecobrick techniques that are taught are indefinitely scalable- these are the same fundamentals used to construct houses and buildings. Once our trainers have got established with the core techniques and principles, the sky is the limit!



Learn More

You can learn all the essentials about ecobricks and earth building at ecobricks.org/earth Sign up for free to gain access to our guidebooks and PDFs. Peruse our site to see the various ways ecobricks are being put to use by our trainers and their trainees around the world.

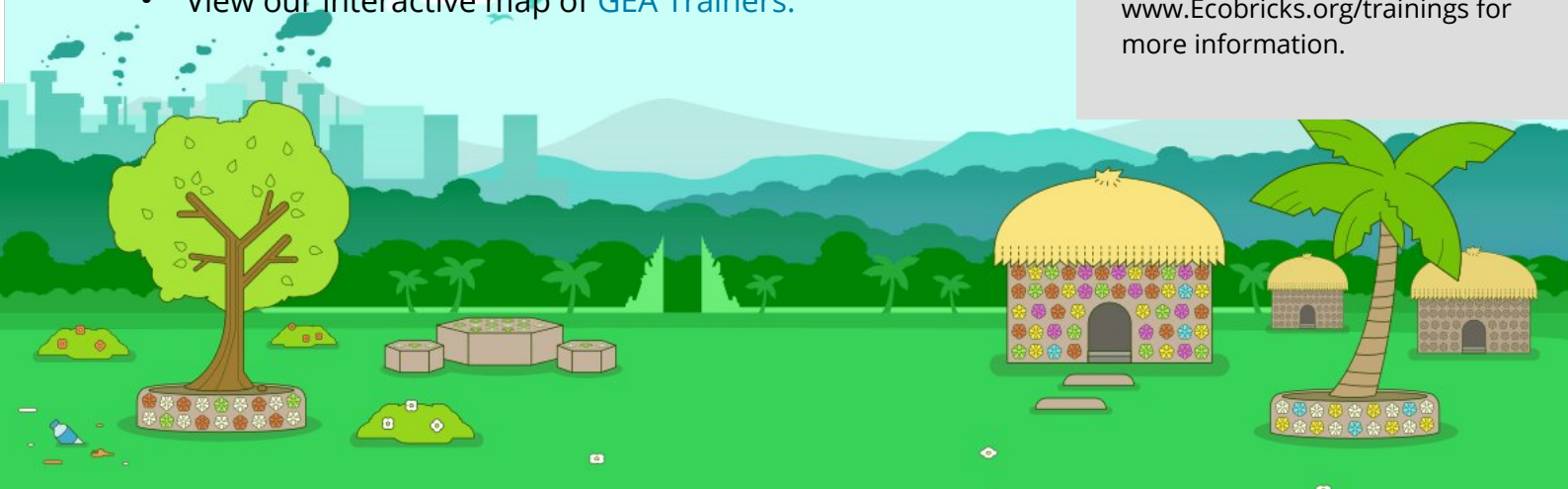
Further links and resources:

- Ecobricks and our trainers featured on [CNN Indonesia](#)
- View a 10 minute documentary on the [spread of ecobricks in the Northern Philippines](#)
- Read our page on [Ecobrick Building and Earth Building](#)
- View a short video of [Russell showing how to make ecobricks modules and use them](#)
- See the Ecobricks.org website
- View our interactive map of [GEA Trainers](#).



Other Trainings

We offer other training services. From one day Ecobrick Starter Workshops, Earth Building Workshops, to Media Events and lectures. See www.Ecobricks.org/trainings for more information.





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Global Ecobrick Alliance

See [Ecobricks.org/trainings](https://ecobricks.org/trainings) for our other training programs. Contact us at vision@ecobricks.org with your questions about the Earth & Ecobrick Building Training of Trainers.



We envision our homes, communities and companies transitioning from plastic towards an ever greener harmony with Earth's cycles