



BAREFOOT
SUSTAINABLE
DESIGN



Bamboo 4 Africa

A TRAINING PROGRAM
BRINGING TOGETHER
SKILLS AND KNOWLEDGE
FOR BUILDING WITH
BAMBOO FOR ECONOMIC
FUTURES, COMMUNITY
RESILIENCE &
RESTORATION

WITH JAYE IRVING



JANUARY 21 - FEBRUARY 15, 2025



ANABAS RESORT
-MERU, KENYA

REGISTER/ SPONSOR / PARTICIPATE:
[HTTPS://BAMBOO4AFRICA.ORG](https://bamboo4africa.org)



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**BAMBOO 4
AFRICA
TRAINING**

4 MODULES FOR BAMBOO BUILDING & DEVELOPMENT

Structured to enable access to Hand-On Skills for potential Small to Medium Enterprises for Bamboo Development Projects in African countries - enabling rural poor to gain knowledge and expertise in bamboo building - encompassing hard skills, knowledge, sustainable farming, design and building of simple potential-demand and more complex structures.



TBA : Industry Preparation, Clump Maintenance, Harvesting & Treatment Tower

Access to this program is for rural/semi/un-skilled workers seeking employment in the Bamboo Industry (by Scholarship or Workplace Training Placement)

01



January 21 - Feb 01, 2025 : Hard Skills Training In-the-field and on-site learning

Hard Skills Course Program: Growing, Harvesting, Treatment and Post-Processing and Storage of Bamboo; Syntropic Farming, Biochar

02



February 04 - 15, 2025 : Applied Construction Basics

Upskilling Bamboo Industry staff and local Communities to build small functional buildings with market value/ potential commercial value

03



TBA : International Design & Build Program

Bringing together world experts and practitioners with International aspiring bamboo community to design and build an affordable sustainable prototype structures for the tropics to subtropics

04



outreach@bamboocreative.org

**REGISTER
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DESPITE THE ABUNDANCE OF BAMBOO FORESTS IN KENYA, A LACK OF TECHNOLOGICAL KNOW-HOW HAS HINDERED THE FULL POTENTIAL OF BAMBOO. (ECOGREEN KENYA). BAMBOO 4 AFRICA TRAINING PROGRAM IN KENYA AIMS TO ADDRESS THIS BY OFFERING COMPREHENSIVE INSTRUCTION AND EXPERIENCE IN CLUMP MANAGEMENT, HARVESTING, TREATMENT, AND SMALL BUILDING CONSTRUCTION.

BY TRAINING A BAMBOO HARVESTING WORKFORCE AND BY ENHANCING THE SKILLS OF EXISTING CRAFTSMEN AND WOMEN, WHO ALREADY POSSESS EXPERIENCE IN FURNITURE-MAKING, THANKS TO COMPREHENSIVE TRAINING PROGRAMS LED BY INBAR IN BAMBOO FURNITURE CARPENTRY, THIS COLLABORATIVE PROGRAM ASPIRES TO TRANSFORM BAMBOO INTO A HIGHLY UTILIZABLE RESOURCE, CONTRIBUTING TO JOB CREATION, INCOME GENERATION, AND ENVIRONMENTAL, ECONOMIC AND CULTURAL SUSTAINABILITY.

A KEY COMPONENT OF THIS TRAINING IS IN AFFORDABLE TREATMENT DESIGN IN MAKING BAMBOO UTILIZATION ACCESSIBLE. THE VERTICAL SOAK DIFFUSION TREATMENT METHOD FOR BAMBOO PRESERVATION WILL BE TAUGHT USING A HYPERBOLOID TEMPORARY TREATMENT TOWER, DESIGNED BY JAYE IRVING. THIS TOWER IS NOT ONLY COST-EFFECTIVE BUT ALSO EASILY REPLICABLE, MAKING IT AN IDEAL SOLUTION FOR VILLAGE COMMUNITIES. THIS WILL ENABLE LOCAL COMMUNITIES TO IMPROVE THE QUALITY AND UTILITY OF BAMBOO, THEREBY ELEVATING ITS MARKET VALUE AND ENHANCING ITS CONTRIBUTION TO THE GREEN ECONOMY AND IN REDUCING DEFORESTATION.

BY DISSEMINATING THIS KNOWLEDGE AND PRACTICE TO LOCAL PARTICIPANTS, WHICH CAN BE APPLIED ACROSS COMMUNITIES WITH EXISTING STANDS OF BAMBOO NATIONWIDE—AND POTENTIALLY EXTENDING THESE PRACTICES TO OTHER AFRICAN COUNTRIES—WE AIM TO FOSTER A DEEPER UNDERSTANDING AND PROFICIENCY IN BAMBOO STAND MANAGEMENT AND MAINTENANCE.

SMALL COMMERCIALIZABLE BUILDING DESIGN AND APPLICATION OF BAMBOO IN DOMESTIC DWELLING DESIGN, INTEGRATED WITH TRADITIONAL TECHNIQUES, WILL ALSO BE THE FOCUS.

ULTIMATELY, OUR TRAINING PROGRAM IS DESIGNED NOT ONLY TO UPSKILL LOCAL AGRICULTURAL BAMBOO WORKERS AND CRAFTSPEOPLE BUT ALSO TO PROMOTE SUSTAINABLE DEVELOPMENT AND CONSERVATION. BY ALIGNING WITH KENYA'S 'VISION 2030', OUR INITIATIVE WILL HELP REALIZE THE VISION OF A PROSPEROUS, MIDDLE-INCOME NATION WITH A HIGH QUALITY OF LIFE FOR ALL ITS RESIDENTS, THROUGH THE SUSTAINABLE MANAGEMENT AND USE OF BAMBOO AND ITS BY-PRODUCTS.



JANUARY 21 -
FEBRUARY 01
2025



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HARD SKILLS TRAINING

Clump Management & Maintenance;
Harvesting, Treatment & Post Processing
Express Course & Biochar Workshop

TRAINING OUTLINE OUTCOMES

Skills applicable to bamboo industry :

- ✓ Harvesting and Treatment Methods
- ✓ Clump Management
- ✓ Post-Production & Processing
- ✓ Bio-Char Workshop

11

DAYS

INTERNATIONAL \$880
LOCAL: \$60 / KSH.7,750
AFRICAN BIZ: \$350/
KSH 45,000

FEBRUARY 04
- FEBRUARY 15
2025



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CARPENTRY TRAINING

Skills for making a small building -
temporary/semi-permanent; up-skilling
existing furniture carpentry skills

TRAINING OUTLINE OUTCOMES

Utilising bamboo to :

- ✓ Upskill Craftsmen to Construction Proficiency
- ✓ Build Contemporary Bamboo Structures
- ✓ Small Trades skills for Local Development
- ✓ Expand Employment Opportunities and
- ✓ Develop Entrepreneur Businesses

11

DAYS

INTERNATIONAL \$880
LOCAL: \$60 / KSH.7,750
AFRICAN BIZ: \$350
/KSH 45,000

TBA 2025



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DESIGN & BUILD TRAINING

Comprehensive International Design and Builders program on design and building with bamboo, harvesting and treatment, processing and post-processing and Live Construction build training

TRAINING OUTLINE OUTCOMES

Bamboo Design Competition Winners

- ✓ Harvesting/Treatment Fast-Pace Course
- ✓ How to Design with bamboo
- ✓ Eco-cottage design and construction
- ✓ Construction Methods & Local Materials

20

DAYS

INTERNATIONAL \$2,225
LOKAL SCHOLARSHIPS
AVAILABLE

Dates To Be Advised



Bamboo Design Competition



FIRST

BAMBOO & EARTH

Design Award - Full
Scholarship for
Earth & Bamboo
Phase 3 program



SECOND

LOCAL INNOVATION

Bursary & Full program
Scholarship for Local
(African) Innovator
in Affordable
Design



THIRD

FAST-BUILD BAMBOO

Full program
Scholarship for
Compact Executable
Bamboo Building
Design

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NOW**

FREE

Membership to our
Online Facebook
Group



Book Now
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Anabas Resort
Meru, Kenya



outreach@bamboo
creative.org



Sponsorship opportunities



\$25/50/75

BAMBOO GROUP
Facebook Live Training
Group and Video
Presentations



\$220/400

**LOCAL PARTICIPANT
/ STUDENT - FULL**
Placement and bursary
for one participant
including board
& food



\$1220

BAMBOO FAMILY
Full Program Fee and
accommodation for 3
week International
program



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Meru, Kenya



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PHASE 2 - MODULE 1 PROGRAM OUTLINE



**JAN 21 -
FEB 01
2025**

HARD SKILLS TRAINING

Clump Management & Maintenance; Harvesting, Treatment & Post Processing Express Course & Biochar Workshop

1. Introduction to Bamboo
2. Benefits of Bamboo
3. History and uses
4. Growing cycles of bamboo
5. Identification of age and species
6. Harvesting and Preservation Techniques
 - a. Clearing and Keyholing
 - b. Selection of viable poles (biochar, weaving and treatment)
 - c. Harvesting of Bamboo to build Hyperboloid
 - d. Setout and Construction of Hyperboloid
 - i. Harvesting and Preservation Techniques
 - ii. Setup of treatment plant (tanks and scheduling)
 - iii. Setup of pump and tank systems
 - iv. Mixing of treatment solution (safety, material knowledge)
 - v. Schedule of harvesting and treatment
 1. Introduction to Biochar
 2. Uses and techniques
 3. Biochar Construction (construction of vessel)
 4. Chopping and preparation of material for BioChar
 5. Burning of Biochar
 6. Quenching and Crushing
 7. Inoculation of Biochar
 - a. Setup of splitting and processing
 - b. Setup of treatment bath for splits and poles
 - c. Basic weaving and panel production
7. Construction of Hyperboloid for Workshop Area
8. Preparation of site for Phase 3 and Movable Foundations for Small Buildings
9. Design Concepts for Bamboo Building
10. Design Competition Results Event

Other Highlights:

Vegan Whole and Bushfoods Workshop;



PHASE 2 - MODULE 2

PROGRAM OUTLINE



**FEB 04 -
FEB 15
2025**

SMALL BUILDING CARPENTRY

T R A I N I N G

**Essential Design Skills for Bamboo Construction;
Skills for making a small building
(temporary/semi-permanent); up-skilling
existing furniture carpentry skills to Construction**

1. Introduction to Bamboo
2. Bamboo types and qualities/specifications
3. Design and structural qualities and application
4. Treatment methods for bamboo (overview)
5. Design Principles Applied to Larger Structures
6. Practical Design of Gazebo/Platform Structure
 - a. Foundations
 - b. Pillar Spacing
 - c. Making Mal/Template
 - d. Construction process:
 - i. Pillars, Pinching Beams and Temporary Support
 - ii. Hole Join and Fish mouth Join, Bamboo nail & string vs bolt.
 - iii. Scaffold for Roofing
 - iv. Horizontal supports/side beams: straight/curved
 - v. Levelling and Installing Sub-floor:
 - vi. Making Flooring (Splits/Smashed Bamboo) and Flooring Install
 - vii. Install Roof Supports
 - viii. Walls and Framing
 - ix. Types of Roofing and Roofing Install
 1. Make Grass Roofing
 2. Make Bamboo Roofing
 - x. Stairs
 1. Design, Levelling
 2. Construction & Stair Treads
 3. Handrail & Railings



Other Highlights:

Rattan, Handicrafts and Product Design for Local Business Enterprises

PHASE 3 - MODULE 3 PROGRAM OUTLINE



**TBA
2025**

INTERNATIONAL BAMBOO & AFRICAN EARTH BUILDING COLLAB TRAINING EVENT

**Harvesting, Clump Maintenance & Treatment Intensive
Training; Bamboo Design and Integration with Earth-
Building from Ghana; Bamboo & Earth Construction
Skills & Techniques; Earth & Bamboo Cottage Build**

1. Introduction to Bamboo, Growing cycles & Identification of age and species
2. Harvesting and Preservation Techniques
 - a. Clearing and Keyholing
 - b. Selection of viable poles (biochar, weaving and bamboo treatment)
 - i. Setup of splitting and processing
 - ii. Setup of treatment bath for splits and poles
 - iii. Basic weaving and panel production
3. Bamboo - In the Round
 - a. Hyperbolic Construction for VSD pole treatment
 - b. Hyperbolic design for Building Structures
 - c. Bamboo Women - Empowerment of Women through utilising bamboo in Traditional Home Design and Construction
4. Earth Building Introduction and Materials Testing
5. Design with Bamboo and Earth-building Techniques from Ghana
 - a. Bamboo Design Principles
 - b. Tools and Safety Knowledge
 - c. Making Foundations
 - d. Post and Beam Construction Techniques and Theory; Support and Spacing
 - e. Earth Building Applications & Cultural Traditions
 - i. Cultural Cosmology of Traditional Building
 - ii. Walls, Cob & Weaving
 - iii. Earthen Flooring
 - iv. Plasters & Finishing
 - f. Clay-Straw Infill & Fast-Build Hyperbolic System
 - g. Roofing Styles and Materials - Bamboo Roof; Thatch/Grass Roof; Tile
 - h. Wet areas: Composting Toilet Systems; Drainage and Greywater Systems

Other Highlights:

African Cultural Dances & Full Moon Gathering; Vegan Whole and Bushfoods Workshop

Bamboo 4 Africa Training Program is designed to enable local people in African countries to access training relevant to local bamboo farming enterprises, hospitality businesses and individuals wanting to develop bamboo's potential in the land management, local industry, business endeavors and entrepreneurial collaboration sectors to increase their capacity and also preserve cultural traditions while marrying bamboo skills and knowledge with ancestral building techniques of Africa.

Our immediate goal is to broaden access to affordable training for companies and technical college trainers, thereby fostering the growth of the bamboo workforce. This initiative aims to empower individuals to utilize bamboo in developing livelihood businesses, ensuring sustainability for both the people and the environment they inhabit. The focus includes developing land use strategies, planting incentives, and community-level management practices and to create affordable and sustainable housing models that cater to local populations displaced from their traditional lands by climate change.

By doing so, we are aiming to unite educators and instructors worldwide with bamboo architecture and sustainability enthusiasts, and to collectively strategize the future possibilities of bamboo. We envision Kenya leading in Bamboo Labor Force training, with plans to assess the initial training phase, monitor skill adoption, and establish methods to support ongoing local bamboo enterprise development.

We are engaged in establishing a Climate Adaptation Village Network with partners (Bamboo Resource Centre and One Buuri) to facilitate and grow Climate Adaptive Family Living Systems (CAFLS). This initiative involves collaborating with local aggregators to ensure transparency in fair labor practices and quality control standards within the bamboo export sector's development and bringing people together to form sustainable partnerships.

Individual/Local Community Members will be able to access the training affordably, and are can raise or request sponsorship or apply for scholarship for the training. (Ks.15,000/ USD\$100 per month). Those participating in the Phase 1 Industrial Skills Training will gain full or partial scholarship in the following Phase 2 & 3 trainings according to interest areas and need. Businesses such as resorts and hotels can send staff to train in skills to make small structures applicable to garden restaurants/resorts; Farm owners/Resource Developers may also send staff to the training. Overseas/International students are also encouraged to join all parts of the training though priority will be given to local placement.

Phase 2 Course Fees:

	<u>Local</u>	<u>Local Business</u>	<u>International</u>
<u>Module 1 Training:</u>	Ks. 7,500	Ks. 45,000	USD \$1180/
21 Jan - 01 Feb 2025	USD\$60	USD\$350	USD \$880
<u>Module 2 Training:</u>	Ks.7,500	Ks.45,000	USD \$1180
04 Feb - 15 Feb 2025	USD\$60	USD\$350	USD \$880



[Sign Up for Module 1](#)

[Sign Up for Module 2](#)

BAMBOO TRAINERS FROM AROUND THE GLOBE

THE TEAM

INTERNATIONAL COLLAB ON COMBINING
TRADITIONAL AND BAMBOO BUILDING

MIA LARSEN

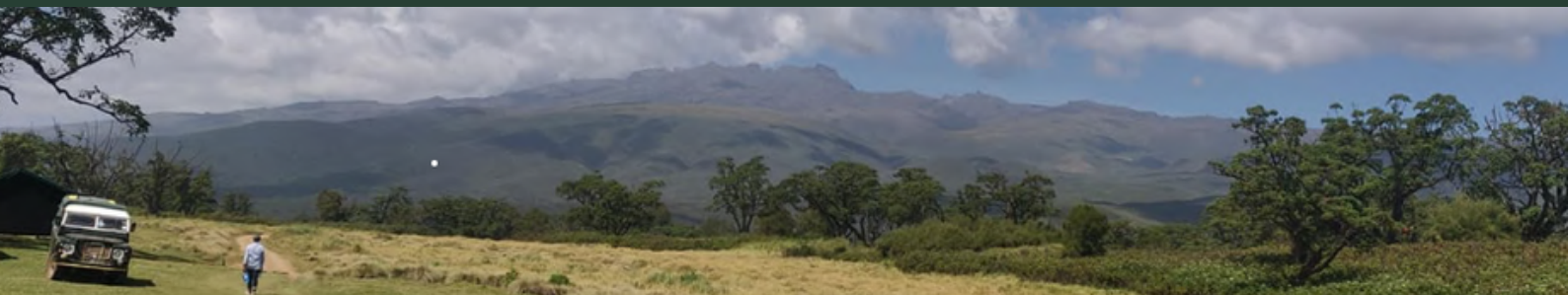
JAYE IRVING

SIXTUS NSOH



Bringing experienced trainers in bamboo clump management, harvesting, processing & post-processing, carpentry, production, sustainable building design, construction and earth building

SCHOLARSHIPS AVAILABLE



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INTEREST**

WWW.BAMBOO4AFRICA.ORG



JAYE IRVING (Canada/Australia) As an Architect, Artist, Builder, and passionate Permaculturist, Jaye Irving's fascination with natural materials has driven him on a global quest for grassroots green design. This journey has enhanced his expertise in integrated food systems, ecological sewage design, and various natural building techniques like bamboo, earth, and straw. Central to these skills, learned from humble artisans worldwide, is the connection with their surroundings. Building homes equates to building communities. Jaye's extensive experience working in developing nations as a change agent has made him a highly driven and skilled professional, eco-consultant, and hands-on advocate for a more sustainable future. Based in Northern Rivers (Australia), Jaye's work has produced numerous sustainable housing models with a strong emphasis on minimizing housing's environmental impact.



MIA LARSEN (Australia) Mia is an architectural designer from Australia with hands-on experience in teaching bamboo. Her passion for design, fuelled by a deep desire for sustainable solutions, led her to focus on natural materials in her work.



SIXTUS NSOH (Ghana) As Programs Manager of One Buuri in Ghana, Sixtus has over 7 years experience in programme design and management approaches, focusing on advocacy, food security, WASH, livelihoods support, and women empowerment and capacity building.

Sixtus designs and builds traditional housing in North Ghana and is committed to preserving the cultural traditions and skills of his homeland. One Buuri empowers women to lead fulfilling and sustainable lives in local villages - offering Fair and Equitable Shea Butter product lines.

**Bamboo 4 Africa
Expressions of
Interest Sign Up**

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BAMBOO CREATIVE BALI

PHASE 1 - MODULE 1

PROGRAM OUTLINE



POSTPONED

INDUSRTY- READINESS TRAINING

**Clump Management & Maintenance;
Harvesting, Land-use Program Planning,
Treatment & Post Processing, Biochar and
Sustainable Farming (Permaculture), Hyperbolic**

1. Introduction to Bamboo
2. Benefits of Bamboo
3. History and uses
4. Growing cycles of bamboo
5. Identification of age and species
6. Harvesting and Preservation Techniques
 - a. Clearing and Keyholing
 - b. Selection of viable poles (biochar, weaving and treatment)
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 4. Chopping and preparation of material for BioChar
 5. Burning of Biochar
 6. Quenching and Crushing
 7. Inoculation of Biochar
 - a. Setup of splitting and processing
 - b. Setup of treatment bath for splits and poles
 - c. Basic weaving and panel production
7. Harvesting Program and Practice
8. Bamboo Women - Empowerment of Women through utilising bamboo in Traditional Home Design and Construction



SEPTEMBER 09
- 19 OCTOBER
2024



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KENYA



INDUSRTY- READINESS TRAINING

Clump Management & Maintenance;
Harvesting, Treatment & Post Processing

TRAINING OUTLINE OUTCOMES

Workforce Training:

- ✓ Clump Management & Maintenance; Keyholing
- ✓ Pole Selection & Harvesting
- ✓ Hyperboloid Tower VSD Treatment Plant
- ✓ Post-Processing - Materials Preparation
- ✓ Drying & Storage

4

WEEKS
WORKPLACE TRAINING
(BY APPLICATION)



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