

Eco Manyatta Housing Project

1 BUILDERS OF HOPE & OUR PARTNERS

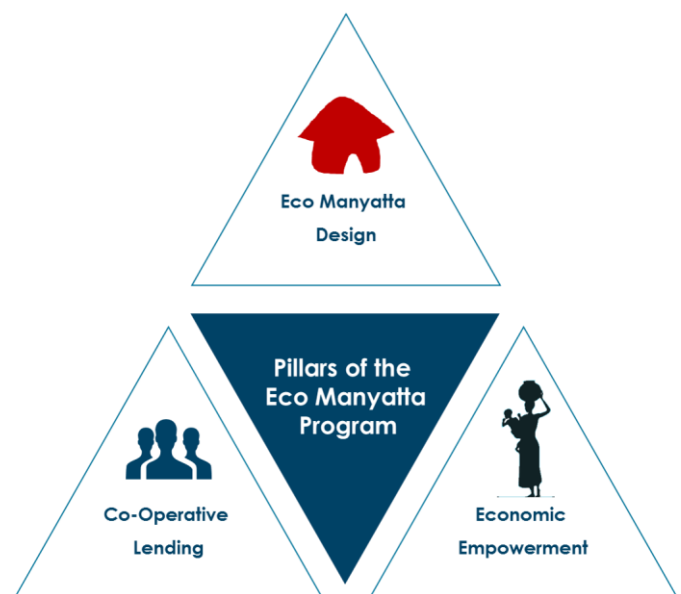
Founded in 2006, Builders of Hope has successfully rebuilt communities by constructing new homes and recycling existing inventory, creating beautiful, healthier single-family and multi-family residences that are energy-efficient and less costly to maintain. The Builders of Hope mission is to increase the availability of high-quality, safe, affordable workforce and low income housing options. Through our innovative and socially inclusive approach, we incorporate economic benefits, environmental stewardship and social solutions for affordable housing development. As social entrepreneurs, BOH sustainably builds financially inclusive and culturally conscious communities — improving one home, one family, one life at a time.



For the Eco Manyatta project there are two other two major implementation partners whom both currently operate in Kenya. The first, and the lead implementation partner, is Eco Manyatta Housing Limited. They have developed the initial designs and already constructed a prototype for a Maasai family. Our other partner is the Maa Trust which works in partnership with the Olare Motorogi Conservancy and neighboring communities to develop and implement initiatives focused on improved livelihoods, holistic community development, and capacity building.

2 ECO MANYATTA PROGRAM OVERVIEW

Eco Manyatta Housing Limited, Builders of Hope, and the Maa Trust project is an ambitious concept of improving the poor living condition in the traditional Maasai manyattas. The pillars of the program are the Manyatta design, co-operative lending model, and the economic empowerment of the Maasai people. The project seeks to use the same housing design of the Maasai only improving it by making it structurally strong and durable using locally available resources. The Eco Manyattas will utilize environmentally friendly materials and clean energy by use of solar systems for lighting and cooking using biogas made from the cow dung. The rain water will be harvested and stored for use. Eco toilets that use less water to clean and are environmentally friendly will also be constructed. The project offers realistic plan to help uplift the living conditions of pastoralists all over Africa by providing low-cost, durable, affordable and safe eco-friendly manyatta housing designs.



The partner organizations are creating a sustainable housing program for the Maasai community. In addition to developing healthy, affordable housing stock, the Eco Manyatta Housing program is creating a financial lending model that supports construction, allowing the Maasai to finance their own home to help create economic opportunities for all residents, especially women and children. The long term goal is localize this rural financing model for a myriad of indigenous communities across Africa.



3 CO-OPERATIVE LENDING MODEL

While many Maasai people live under a dollar a day, they still have some sources of income. The most notable of these sources are their cattle and sheep. A major component of the program Builders of Hope is structuring with Eco Manyatta Housing Ltd is to enable the Maasai people to pay for their own homes using the sale of cattle and sheep. Since income is irregular with the Maasai people (i.e. they are not paid on a monthly basis), the Eco Manyatta project plans to establish a Co-Operative model to provide financing to the Maasai people and act as an intermediary between the Maasai purchasing their homes and lending institutions. Maasai people will pay the Co-Operative on a semi-annual basis that mirrors how they are compensated for their cattle and sheep. The co-operative will then pay the lending institutions on a monthly basis by pooling all the payments they receive and spreading them throughout the year to adhere to conventional lending formats.

Furthermore, the Co-Operative will establish a program for outreach and re-investment in the community. The Co-Operative will plan for investment in shared infrastructure like health clinics and help the Maasai people, especially the women, jump start their own businesses in trades like bead making, construction, and other enterprises. Builders of Hope plans to use this as a pilot project to establish a rural financing model that can be leveraged to help other rural Africans upgrade their homes with modern amenities that reduce disease, increase access to electricity, and allow women and children to thrive. In summary, the Eco Manyatta project will be implemented in the following fashion:

- Maasai will finance the purchase of their Eco Manyattas
- Co-Operatives will be established to manage payments and provide support services
- Shared infrastructure will be built in strategic locations
- New enterprises will be incubated for Women to have additional sources of income

4 ECONOMICALLY EMPOWERING THE MAASAI

The Maasai are a Nilotic ethnic group of semi-nomadic people inhabiting southern Kenya and northern Tanzania. They are among the best known local populations due to their residence near the many game parks of the African Great Lakes, and their distinctive customs and dress.

- Traditionally been nomadic but are now more pastoral
- Famous for their warrior culture and their cattle
- Amongst the poorest groups in Kenya despite living next to Maasai Mara conservation park
- They are well known for their bead work

MAASAI WOMEN

Today, even with free primary school education in Kenya since January of 2003, only **48 percent** of Maasai girls enrol in school, and only **10 percent** of girls make it to secondary school. Given the lack of education and time-consuming daily chores, women have little means to empower themselves.

By providing an eco manyatta for the women, it is estimated that they will have 5-8 additional hours in the day to devote to leisure or their own enterprises; thereby reducing the time they will need to spend maintaining the manyatta, collecting water, collecting firewood and maintaining the fire.









CURRENT MANYATTA HOMESTEADS

Over 300,000 Maasai are living in manyattas that lack basic sanitation, lighting, proper ventilation, clean water sources, clean cooking stoves, window screens, and doors. Each Eco Manyatta will house an entire family with solar power for lighting, screen windows, doors, eco-toilets, water catch basins, and bio gas stoves. The addition of these amenities for Maasai women and children will free up the time they currently spend maintaining their homes and fetching water, thus allowing these women to empower themselves through their own micro-enterprises for items such as the world famous Maasai beadwork.

Problems associated with these homes include:

- ✓ Long Walks to fetch water
- ✓ Long Walks to fetch wood
- ✓ No Electricity
- ✓ Unsanitary Toilet
- ✓ Frequent Maintenance needs for manyatta








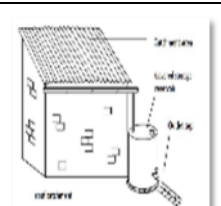
Manyatta Structure: Made of sticks, cow dung and mud with very small windows and requires lots of maintenance.	
Kitchen Stove: Open flame that uses kindling to cook and results in poor air quality in the home.	
The Solar Energy: Non-existent and no access to lighting other than open flame in their current manyattas	
Water Provision: Water is captured from local streams which have often been contaminated	
Waste Disposal: Open pit with no sanitary protection leaving women and children susceptible to diseases	
Screened Windows: Open windows with no protection from disease ridden mosquitos that cause malaria	




THE ECO MANYATTA DESIGN

The project offers realistic plans to help uplift living conditions of pastoralist all over East Africa by providing low-cost, durable, affordable and safe eco-friendly Manyatta housing designs. The project goal is to enhance the manyatta housing units using locally available materials, powered with readily available sustainable green energy supply from solar and biogas technology harvested and stored rain water at sustainable cost for the poor pastoralists without interference to their lifestyles.

The prototype house was launched on 9th June 2015 and it was well received by the community and the houses are to be replicated in the 39 wards of Narok County. The design of the houses will be in line with maintaining the traditional model loaf bread shape. Below is a summary of the components that are part of an Eco Manyatta upgrade which is expected to provide the following benefits for the Maasai people:

- ✓ No need to fetch water
- ✓ No need to fetch wood
- ✓ Access to Electricity
- ✓ Sanitary Toilet
- ✓ Minimal Need to Maintain Manyatta
- ✓ Protection from disease ridden mosquitos

	<p>Compressed soil bricks: Use of locally produced stabilized soil blocks for the walling while incorporating the community in the production process, as well as skill transfer in simple construction tasks. This construction creates a solid structure that minimizes maintenance needs and provides a healthy living environment insider the manyatta.</p>	
	<p>Clean Bio-Gas Stoves: BIO-Gas is a cooking fuel that replaces firewood, charcoal and kerosene. Biogas-digester systems are clean, easy to use, save you money and improve your home. The technology reduces deforestation and increase air quality health. The installation on a bio-gas stoves can reduce black carbon emissions by 90% per manyatta.</p>	
	<p>Solar Energy Panels: Replacing kerosene or paraffin with portable, affordable solar lights saves money, enables more study time, improves health, makes a home safer and saves the environment from harmful black carbon. Furthermore, it allows the Maasai to now own their own mobile phone devices since they can charge them with the solar power.</p>	
	<p>Clean Water Harvesting: There are serious water challenges in most pastoralist communities despite having flooding/rainfall several times a year. Our solution installed water harvesting and storage techniques for sustainable water supply. This solution ensures the Maasai are drinking clean water and reduces the burden of travel kilometers for clean water.</p>	

	<p>Sanitary Eco-Toilets: The Eco manyatta offers a decent toilet in every home which is affordable, has a lid to stop flies' infestation, and is easy to use, easy to install, easy to clean, easy to move to another location and long lasting. With regular incidence of disease among the Maasai due to lack of sanitization, this is a huge upgrade!</p>	
	<p>Screened Windows: One of the largest benefits to the Eco Manyatta is the addition of screened windows, which prevent harmful mosquitos from entering the manyatta. The old manyattas have small open windows. There are several studies, which suggest that the addition of screen windows can reduce malaria incidence by up to 60%.</p>	