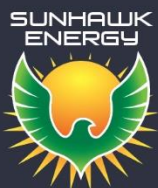




SUSTAINABLE VILLAGE PROJECT

Malawi, Africa



INTRODUCTION

In September of 2015, world leaders met at the United Nations Headquarters in New York and adopted the 2030 Agenda¹ for Sustainable Development (the “2030 Agenda”). The 2030 Agenda is an ambitious plan for eliminating poverty, fighting inequality and injustice, and ensuring lasting protection of the planet and its natural resources. At the core of this plan is a set of seventeen (17) Sustainable Development Goals (the “UN Sustainable Development Goals”)² designed to make this transformational vision of the world a reality. A United Nations report on the status of the 2030 Agenda (the “UN Report”)³ found that one in eight of the world’s population live in extreme poverty, nearly 800 million people suffer from hunger, 1.1 billion people live without electricity, and water scarcity affects more than 2 billion people. In addition, the UN Report highlights the following “significant gaps and challenges” that are pertinent to our Sustainable Village Project:

- Poverty remains widespread in sub-Saharan Africa, where more than 40 percent of people live on less than \$US 1.90 a day;
- More than half of the adult population in sub-Saharan Africa face moderate or severe food insecurity, and 36 percent of children under the age of 5 suffer from chronic undernutrition resulting in stunting;
- Almost half the world’s population is at risk of malaria, and sub-Saharan Africa accounts for 89 percent of all cases; the incidence of HIV is highest in sub-Saharan Africa, with 1.5 new cases per 1,000 uninfected people;
- More than 30 percent of people in sub-Saharan Africa do not have access to improved drinking water sources, and more than 70 percent do not have access to improved sanitation facilities; and
- Over 65 percent of the population of sub-Saharan Africa do not have access to electricity.

There is little question that the people of sub-Saharan Africa have been disproportionately impacted by the problems the 2030 Agenda seeks to resolve.

2C Energy, LLC., through its sister non-profit company, SunHawk Energy International (“SunHawk”), has joined with Child Legacy International (“Child

¹ <http://www.un.org/sustainabledevelopment/development-agenda/>

² <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

³ <http://www.un.org/sustainabledevelopment/blog/2015/12/un-report-global-economy-faces-headwinds-only-modest-improvement-projected-for-2016-17/>

Legacy”) to develop a Sustainable Village in sub-Saharan Africa, consistent with the 2030 Agenda and the UN’s Sustainable Development Goals. The objective of the Project is to provide a repeatable road map for breaking the generational cycle of poverty in sub-Saharan Africa by successfully integrating the economic, social and environmental elements of sustainability. This holistic approach to sustainable development is designed to empower community members to work with SunHawk and Child Legacy as partners to effect lasting change in their community.

THE SIX PILLARS OF SUSTAINABLE LIVING

The foundation of our Sustainable Village is built on six (6) pillars of sustainable living:

1. Clean water;
2. Clean energy;
3. Proper nutrition;
4. Quality healthcare;
5. Foundational education and vocational training; and
6. Inclusive access to productive employment and sustainable economic growth.

We believe these six (6) essentials of life are fundamental to any long term, sustainable solution to the elimination of poverty in all its forms.

THE SUSTAINABLE VILLAGE PROJECT: PHASE I

The Sustainable Village Project is situated near Msundwe, Malawi, an area of extreme poverty, poor health conditions, high unemployment and frequent food shortages. Since the community lacked nearly all the infrastructure required to support the six (6) pillars of sustainable living, the first phase of the Project focused primarily on capital improvements. The following is a brief description of the Project’s existing facilities:

Water Supply

The Project is equipped with an integrated water supply system that includes

three water wells (equipped with solar pumps), two additional water pumping systems that access nearby *dambos* and supply current and projected water needs for agriculture and aquaculture activities, and a water distribution system that provides hot and cold running water to existing project improvements.

Energy Supply

All project facilities, including the hospital, the staff housing and guest quarters, the church and preschool, the carpentry workshop, the tilapia ponds, all agriculture operations, the organic egg facilities, and the new Education, Research and Innovation Center (the “ERI Center”) are powered 100% by wind and solar energy. Two powerhouses track energy consumption, and additional energy is generated when needed for instantaneous use or for recharging system batteries.

Healthcare

Child Legacy’s wellness center first opened in July of 2012. Two fully-functioning, U.S. standard surgical theaters, with a blood bank and laboratory, were added in 2015. Since that time, the healthcare facilities have been expanded to include a maternity ward, a labor and delivery ward, a mother’s waiting shelter, laundry facilities, an eye care clinic and medical research facilities.

Agriculture & Aquaculture

Our agriculture and aquaculture facilities provide nutritious food for our staff, with surplus food available for sale to the community. Existing facilities include thirteen (13) tilapia ponds, over 200 acres of irrigated land supporting crops like bananas, corn, guavas, mangos, papayas, strawberries, various vegetables, a small tree farm and two greenhouses.

In the fall of 2018, we contracted with a local company, Afribam (www.afribam.com), to supply the Project with 16,000 bamboo plants and a drip irrigation system for our new bamboo farm. Planting operations were completed before the onset of the 2018 rainy season.

We also have three chicken houses to support a thriving organic egg growing business.

Vocational Training

The ERI Center currently supports several healthcare related research activities, and will soon provide training in healthcare, renewable energy installation,

maintenance and repair, agriculture/aquaculture, water management, and various eco-innovation programs tailored to the specific needs and capabilities of the Msundwe community. The ERI Center will be equipped with advanced telecommunication technologies to provide students access to educational opportunities from around the globe.

Education and Youth Development

SunHawk has collaborated with a local youth development group (CECOYD) to develop two programs designed to encourage and enable children and young adults to complete their foundational education and pursue sustainable business ventures in the community. The first program, our Youth Empowerment through Supportive Education Program (YESE) is currently funding 28 primary level educations, 32 secondary level educations and 10 tertiary level educations.

The second program, the Youth Development and Agricultural Research Center (the “YDAR Center”), was established in 2017 with the acquisition of a 12.85 acre parcel of land along M12, just west of Msundwe. The land was improved with a water well, an office and an equipment storage building to support agricultural research and development activities. The YDAR Center is operated by CECOYD.

THE SUSTAINABLE VILLAGE PROJECT: PHASE II

The second phase of the Project is focusing on the following eight (8) activities (the “Phase II Activities”) that define our pathways of change for the Msundwe community:

Community Engagement

Frequent consultations with governmental organizations, tribal authorities, community leaders, and other local groups have played an important role in formulating our Phase II Activities. Throughout the implementation of the Phase II Activities, regular meetings will be held to monitor progress and allow community representatives to provide feedback on what is working and what is not working.

Healthcare Facilities

The Hospital requires additional medical equipment, medicines, consumables, computers and staffing to accommodate increased patient volume. We also plan to implement a new technology-enabled, community outreach program that will extend the reach of our healthcare services beyond our existing catchment area. Finally, we are actively pursuing opportunities to expand our medical research capabilities.

Expansion of Agriculture & Aquaculture Operations

Based on the success of our bamboo farm, we plan to expand our operations by planting bamboo on an additional 100 acres of land. The Project's agriculture and aquaculture operations will also be expanded to satisfy the growing demand for our organic eggs, tilapia and fresh produce. Finally, we plan to integrate biochar production facilities with our agriculture operations and capture the value associated with our biomass residuals.

Expansion of Infrastructure

With the assistance of microgrid and water system design specialists, we will conduct a comprehensive analysis of energy and water supply requirements for the Project. The scope of these analyses will include existing and projected demand, system optimization, transmission and metering options, build-out options and pricing, operation and maintenance requirements, system constraints and potential tariff formats. These analyses will be utilized to plan the phased expansion of the Project's renewable energy and water supply facilities. In addition, to facilitate emergency ambulance trips to Mzuzu Central Hospital in Lilongwe, the 4.4 km dirt road that connects the Project site to paved highway M12 must be improved to allow vehicular traffic in all weather conditions.

Community Water Supply and Management

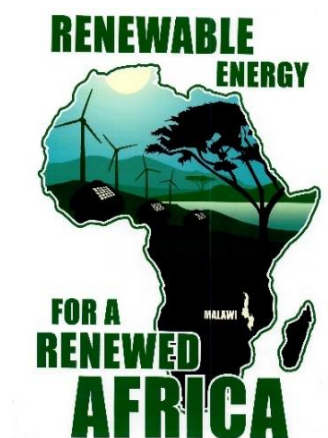
Water supply and management is an enormous problem in the area. Access to water for drinking, cooking and growing crops is very limited, with villagers often walking several kilometers to source their needs. SunHawk believes that harvesting the water resource potential of the area's *dambos*, through eco-friendly management practices, holds tremendous promise for alleviating the problem. "*Dambos*" are grass-covered, seasonally waterlogged topographic depressions that border headwater drainage lines.

Education and Vocational Training Programs

The new ERI Center has been partially furnished with desks, conference tables and chairs. To become fully operational, the ERI Center must be equipped with advanced telecommunication equipment, audio-visual equipment, computers and some additional furniture. Following consultations with community leaders, SunHawk, Child Legacy and a local youth development group (CECOYD) have begun developing educational and vocational training programs in the areas of healthcare, agriculture/aquaculture, renewable energy installation, maintenance and repair, water management and small business development. Each program will include classroom instruction at the ERI Center and field training at either Child Legacy's main campus or the YDAR Center.

Overcoming Barriers to Access

A big challenge we face is how to provide the local population with sustainable, inclusive access to all the services, equipment and financing that are required to transform the Msundwe area to an economically vibrant community. For example, to provide customers with reliable and affordable electricity, a tariff structure must be designed that balances the financial needs of the power system with the customers' ability to pay. Another access challenge is how to get income producing technologies and equipment in the hands of the local population, so they can capture the productivity gains these technologies and equipment can bring. We are currently developing three (3) programs to help overcome these access barriers: our OASIS™ Program (Optimized Asset Investment Sharing Strategy), Power with a Purpose Program, and Community Investment Credit Program.



PROJECT SITE 2012



PROJECT SITE 2020



FUNDING OPPORTUNITY

The Sustainable Village Project is a unique funding opportunity for organizations focused on achieving the UN Sustainable Development Goals, as it integrates several goals in one project and provides substantial “scale-up” opportunities. Our existing facilities and long-term presence in the community significantly reduce project execution risk. Funding for the Phase II Activities will allow us to expand the medical services offered to the community, enhance the sustainability of our agriculture/aquaculture operations, implement our educational and vocational training programs and support the development of sustainable business and employment opportunities in the area.

For questions concerning the Sustainable Village Project, please contact:

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THE JOB OF LOVE IS TO REALIZE THE
POTENTIAL OF OTHERS.

Bono

