River Deep Club

DEVELOPMENT
FOUNDATION

BECOME
PART OF OUR
JOURNEY TO
MAKE A *Difference*

TSUMKWE , NAMIBIA

PROJECT PROPOSAL

Lights for Bushmanland

AGENDA

INTRODUCTION AND BACKGROUND	3
WHO WE ARE	4
MAKING A DIFFERENCE	5
PURPOSE	6
CHALLENGES FACED BY THE BUSHMEN	7
PROJECT GOALS AND OBJECTIVES	9
KEY BENEFITS	15
PROJECT DESCRIPTION	16
ASSESSMENT	17
FACTORS DETERMINING CAPACITY PLANNING	18
SPECS FOR THE SOLAR SYSTEM	19
IMPLEMENTATION PLAN	20
TIMELINE	21
KEY MILESTONES	22
TOTAL INVESTMENT	23
IMPACT ASSESSMENT	24
SUSTAINABILITY AND MAINTENANCE	25
CONCLUSION	26

INTRODUCTION AND BACKGROUND

Nyae Nyae Conservancy, located in Bushmanland in north-eastern Namibia, is home to the local Ju/'Hoansi Bushman tribe. These Ju/'Hoansi Bushmen tribe lives in 40 villages in Bushmanland are known for their rich cultural heritage and traditional way of life, which they have preserved for thousands of years. As some of the last people on Earth to live in harmony with nature, their profound knowledge of the environment, sustainable hunting practices, and deep spiritual connections to the land are invaluable.

Their traditions include intricate storytelling, unique languages, and exceptional skills in crafting tools, jewelry, and art that reflect their deep-rooted connection to their heritage. The Bushmen's way of life offers invaluable insights into human history and the sustainable coexistence with nature, making their preservation and empowerment through initiatives like solar energy projects crucial for maintaining this unique cultural legacy.




WHO WE ARE

Welcome

to River Deep Club/Development Foundation where our passion meets purpose. We are dedicated to make a difference in the lifes of the Ju/'Hoansi Bushmen through our pograms and initiatives. Explore our projects to learn more on how you can get involved to help us create a lasting Impact

MAKING A DIFFERENCE

Our Impact

5682+

Kids

10+

Projects

11374+

Bushmen

1234+

Current Scholars

15387+

Animals

PURPOSE

In the face of global environmental challenges and the quest for sustainable energy solutions, the spotlight has turned to the inexhaustible and clean potential of solar energy. Solar power, harnessed from the radiant energy of the sun, has emerged as a frontrunner in the transition towards a more sustainable and eco-friendly energy landscape. It's growing population stems from its its inherent ability to reduce carbon footprints, mitigate climate change, and offer a cost-effective alternative to traditional sources of power.

This proposal aims to introduce solar energy solutions to the 40 villages in Bushmanland, addressing the critical need for reliable electricity and mitigating the conflict between humans and wildlife. The initiative will improve living conditions, health, education, and economic opportunities while promoting environmental sustainability.

CHALLENGES FACED BY THE BUSHMEN

These villages face significant challenges related to energy access, affecting health, education, and economic development. Additionally, the area is known for its rich biodiversity, leading to frequent human-wildlife conflicts. Solar energy offers a sustainable solution that aligns with the region's environmental conditions and the community's needs, while also addressing the human-wildlife conflict by providing secure lighting to deter wildlife.

Fire Hazards

The Bushmen communities in Bushmanland face significant challenges due to their reliance on oil lamps and candles for lighting. These traditional lighting methods are not only inefficient and expensive but also pose severe safety hazards. The villages are remote and dispersed throughout the conservancy, making access to safer, modern lighting solutions difficult. The use of oil lamps and candles often leads to uncontrolled fires, which can rapidly spread in the thatched-roof huts and dry environments typical of the region. Such fires frequently result in devastating losses, including the destruction of homes, personal belongings, and vital community infrastructure.

Health risks

The risk of burns and injuries, especially among children and the elderly, is also high. Furthermore, the indoor air pollution caused by burning oil and candles has detrimental health effects, contributing to respiratory illnesses.

Isolation and accessibility

In the remote villages of Bushmanland, the birth and upbringing of children present formidable challenges. With homes spread far from the nearest clinics, many births occur in complete darkness, guided only by the dim and flickering light of oil lamps or candles. This lack of reliable lighting increases the risk of complications during childbirth, contributing to higher rates of infant and maternal mortality.

Educational Challenges
For children who survive, the struggle continues as they cannot study or complete their homework after sunset due to the lack of adequate lighting, hindering their educational progress.

Human-Wildlife conflict
Additionally, the villages are in proximity to water points frequented by over 3,000 elephants and other dangerous wildlife, which often leads to conflicts as these animals encroach on human settlements, sometimes causing destruction and posing severe threats to safety.

Security issues
Livestock, a critical source of livelihood for the Bushmen, are also at constant risk from predators. Without proper lighting, protecting these animals at night becomes a daunting task, despite efforts to secure them in fenced enclosures.

Economic limitations
The Bushmen of Bushmanland derive a significant portion of their income from creating and selling arts and crafts, which are highly valued for their cultural and aesthetic significance. However, their productivity is severely limited by the lack of reliable lighting, restricting their work to daylight hours. The introduction of solar energy can transform this scenario by providing consistent and safe lighting, allowing artisans to extend their working hours into the evening. This increase in productive time can lead to a higher output of crafts, enhancing their ability to meet demand and generate more income. Furthermore, the quality of work can improve with better lighting, making their products more attractive to buyers. Solar energy thus not only provides a sustainable solution to their lighting needs but also plays a crucial role in boosting economic opportunities and financial stability for the Bushmen communities.

The introduction of solar energy systems is crucial for these communities. Solar-powered lighting can significantly reduce the risks associated with childbirth, enable children to study in the evening, deter wildlife from approaching human settlements, and enhance the overall safety and quality of life for the Bushmen.These challenges underscore the urgent need for a sustainable, safe, and reliable lighting solution, which solar energy systems can provide.

PROJECT GOALS AND OBJECTIVES

GOALS

Human-Wildlife conflict

- To provide a sustainable energy source to improve the quality of life for the Bushmen communities.
- To reduce reliance on non-renewable energy sources and promote environmental sustainability.
- To mitigate human-wildlife conflict by installing secure solar lighting.
- Improve lighting for safer childbirth practices and reduce maternal and infant mortality rates.
- Facilitate better access to healthcare services through reliable lighting.
- Enable children to study and complete homework after sunset with adequate lighting.
- Support educational progress and opportunities for the youth.
- Install secure lighting around water points and human settlements to deter wildlife, including over 3,000 elephants and other dangerous animals.
- Reduce property destruction and enhance community safety from wildlife encroachments.

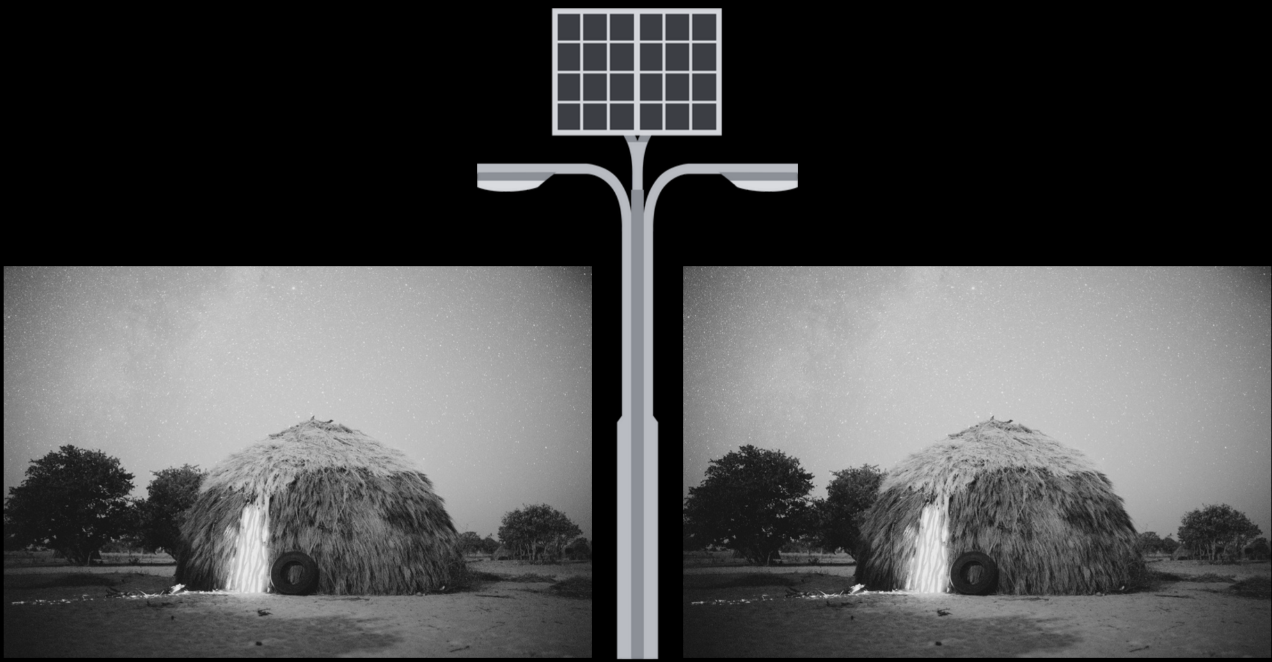
- Provide proper lighting to secure livestock enclosures at night, protecting them from predators.
- Enhance overall security and reduce theft and wildlife attacks.
- Enable artisans to extend their working hours into the evening, increasing the production and quality of arts and crafts.
- Enhance economic stability and income generation by improving the efficiency and attractiveness of locally made products.
- Reduce the community's carbon footprint by transitioning to renewable solar energy.
- Preserve the local ecosystem by minimising pollution and habitat disruption.
- Enhance the safety of homes and community infrastructure through the installation of solar-powered lighting systems.
- Reduce indoor air pollution and associated respiratory illnesses by introducing clean solar lighting.
- Establish a community-led governance model to ensure the sustainability and proper management of solar energy systems.

OBJECTIVES

Improve life quality

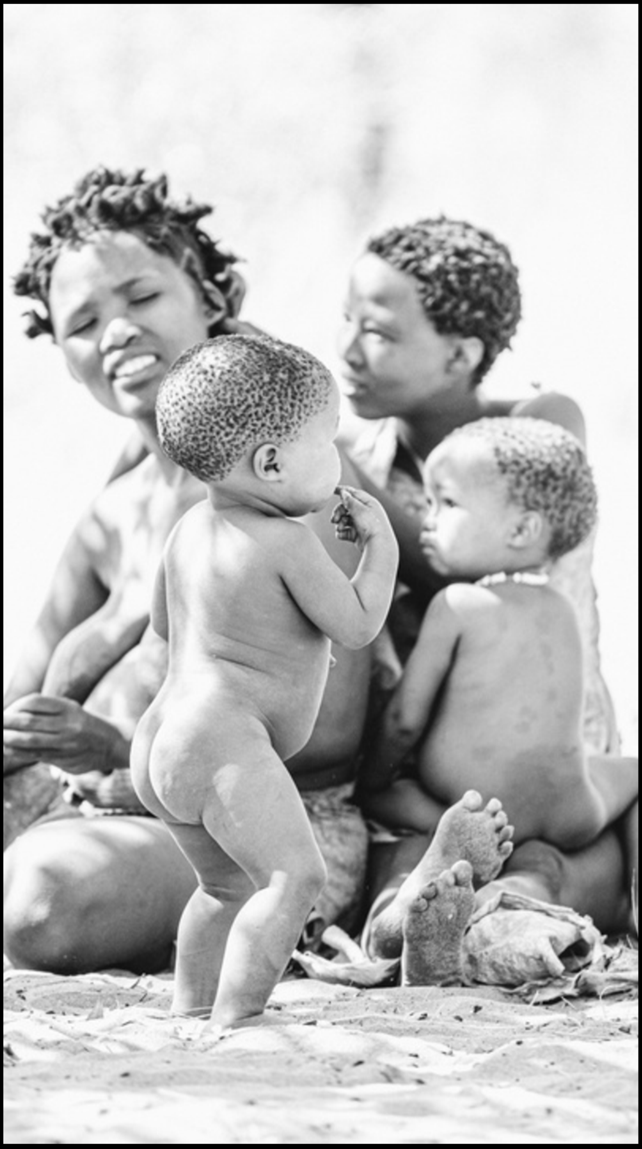
and

Enviromental sustainability



- Install solar power systems in 40 villages.
- Provide reliable and sustainable solar energy to replace traditional oil lamps and candles.
- Ensure consistent and safe lighting solutions across all villages.
- Eliminate the use of oil lamps and candles to prevent uncontrolled fires.
- Decrease the incidence of burns and injuries, especially among vulnerable groups like children and the elderly.
- Provide training and capacity building for local technicians to maintain solar systems
- Enhance the quality of life through access to clean energy.
- Promote environmental sustainability by using renewable energy sources.
- Provide training for local community members on solar technology maintenance.
- Establish a community-led governance model for the solar energy systems.
- Implement secure lighting to reduce wildlife encroachment into human settlements.

KEY BENEFITS



01

HEALTHCARE

IMPROVE CHILD BIRTH CARE, REDUCE INDOOR AIR POLLUTION AND REDUCE RESPIRATORY ILLNESSES

02

EDUCATION

INCREASED EDUCATIONAL OPPORTUNITIES

03

ENTREPRENEURSIP

ECONOMIC EMPOWERMENT AND JOB CREATION

04

CONSERVATION

ENVIROMENTAL PROTECTION AND SUSTAINABILITY

05

SAFETY

REDUCE HUMAN-WILDLIFE CONFLICT

PROJECT DESCRIPTION

The Nyae Nyae Bushmen Electrification Project targets the Bushmen residing in the Nyae Nyae Conservancy, a vast area spanning 900,000 hectares (approximately 2,223,948 acres). Over 4,000 individuals live across 40 villages in this conservancy. Despite having power in the town and some solar installations, extending the electrical grid to these 40 villages is currently unfeasible. The lack of electricity has significant social and economic repercussions on the Bushmen community.

Without access to electricity, the daily lives of the Bushmen are dominated by tasks necessary for basic survival. Men spend their days hunting in the bush, as they are the only people on Earth permitted to hunt traditionally with a bow and arrow. Meanwhile, women walk up to 10 kilometers daily to collect firewood, a time-consuming task that precludes them from engaging in more economically beneficial activities, such as creating arts and crafts that could generate income.

This constant struggle for basic resources severely limits opportunities for education, healthcare, and economic development. Many children and women miss out on quality education, healthcare services, and food and water security. The broader economic opportunities available to them are virtually nonexistent. The lack of electricity exacerbates these challenges, perpetuating a cycle of poverty and limited prospects. The Nyae Nyae Bushmen Electrification Project aims to address these critical issues by exploring sustainable energy solutions that can bring electricity to these remote villages. By providing access to electricity, we seek to improve the quality of life for the Bushmen, enabling them to pursue educational opportunities, access better healthcare, and develop economic activities that can lead to a more prosperous and sustainable future.

ASSESSMENT

Site Assessment
Current Energy Situation: The villages in Bushmanland rely on non-renewable and inefficient energy sources, such as fire and oil lamps, which impact the local biodiversity and ecosystem.
Solar Potential: The region receives abundant sunlight, making it ideal for solar energy installations. Solar irradiance data indicates high potential for harnessing solar power.

Technology Selection
Solar Panels: Panels will be selected due to their high efficiency and longevity.
Battery Storage: Solar batteries will be selected for their reliability and storage capacity.
Secure Lighting Systems: LED lighting systems with motion sensors will be installed to deter wildlife from entering human settlements.

System Design
Design Layout: Solar panels with the lights will be installed on rooftops and/or open spaces, ensuring optimal sunlight exposure. Battery storage units will be housed in secure locations.
Capacity Planning: The system will be designed to meet the average energy needs of each village, considering household consumption, communal facilities, and secure lighting requirements.

FACTORS DETERMINING CAPACITY PLANNING

- Population size
- Number of huts
- Size of the village
- Distance to the nearest water source
- Proximity to wildlife and predator presence
- Availability of a school and number of children
- Number of women
- Health facilities or access to healthcare
- Livelihoods and sources of income

SPECS FOR THE SOLAR SYSTEM

Specs for solar system

- 400W Solar LED Floodlight Cool White
- 13000 Lumens
- 6 V A8 – Solar Panel
- Beaming angle 120'
- Colour Temperature : 6000-6500K
- Charging time to 100% : >6 hours
- 12 hour operating duration – Full charge
- Material : ABS, Die-Cast, Aluminium
- IP67 Waterproof
- Battery Specification: 25000mAH
- Luminated Area per floodlight – 500 square meters
- Floodlight stand height: 15 feet above ground – 3 feet below surface

IMPLEMENTATION PLAN

The River Deep Club/ Development Foundation will spearhead this initiative, utilizing donations to fund the project. Our foundation will oversee the implementation and ensure close coordination with the Nyae Nyae Conservancy Committee and local community members to guarantee the project's success.

Key aspects of our implementation plan include:

Collaboration with Local Stakeholders

River Deep Club Development Foundation will work closely with the Nyae Nyae Conservancy Committee and local community members. This collaboration will ensure that the project aligns with the community's needs and expectations.

Utilization of Local Suppliers

We will engage local suppliers for the provision, construction, and transportation of solar equipment to the villages. This approach not only supports the local economy but also ensures that the benefits of the project extend to local businesses and suppliers.

Fund Management and Distribution

Our foundation will be responsible for the careful oversight and distribution of project funds. We will maintain transparency and accountability, providing progress reports to donors to keep them informed of the project's advancements.

Customized Village Plans

Each village's specific needs will be assessed to develop tailored plans that ensure the effective implementation of solar energy solutions. This will involve thorough monitoring, assessment, and evaluation to adapt to any challenges that may arise.

Training and Ownership

The project will empower the Bushmen in the villages by providing training on how to maintain, manage, and sustainably use the solar equipment. This includes adopting smart power usage skills and general maintenance practices, ensuring long-term sustainability.

Environmental Compliance

All activities will comply with the Nyae Nyae Conservancy's environmental requirements, ensuring that the project supports and enhances local environmental conservation efforts.

TIMELINE

MONTH (1-2)

PHASE 01

Site surveys, community consultations, and project planning.

MONTH (3-6)

PHASE 02

Procurement of equipment and initial installations in villages.

MONTH (7-10)

PHASE 03

Full system installation, testing, and commissioning in all target villages.

MONTH (11-12)

PHASE 04

Community training, handover, and commencement of operations.

KEY MILESTONES

- Completion of site assessments and community consultations.
- Delivery of solar equipment.
- Installation and testing of solar systems in pilot villages.
- Full-scale installation in remaining villages.
- Community training and system handover.

TOTAL INVESTMENT

Departement	Items	Qty	Total
CAPITAL EXPENCES			
Solar pannels	USD 50	200	USD 10 000
Batteries	USD 30	200	USD 6 000
Solar Lights	USD 110	200	USD 22 000
Mounting structures, concrete, etc	USD 180	200	USD 36 000
Wiring and cabeling	USD 15	200	USD 3 000
Transport and logistics	USD 50	200	USD 10 000
Installation costs	USD 15	200	USD 3 000
Training and capacity building	USD 20	200	USD 4 000
OPERATING EXPENCES			
Maintenance and repair cost	USD 45	200	USD 9 000
Community governance and management expences	USD 15	200	USD 3 000
Contingency fund	USD 25	200	USD 5 000
PROJECT COST	USD 555	200	USD 111 000

Funding Sources: •Local funding and partnerships. •International aid and donations.

IMPACT ASSESSMENT

Environmental Impact

- Reduction in Carbon Footprint: Replacing diesel generators and kerosene lamps with solar power will significantly reduce greenhouse gas emissions.
- Preservation of Local Ecosystems: Minimizing pollution and habitat disruption will protect the region’s biodiversity.

Social and Economic Benefits

- Improved Health: Access to clean energy will reduce indoor air pollution, improving respiratory health.
- Health concerns with births: Solar power can help reduce birth complications in villages by ensuring a consistent supply of electricity for medical equipment and lighting during childbirth, improving overall maternal and neonatal care.
- Enhanced Educational Outcomes: Reliable electricity will enable evening studies and the use of educational technology.
- Economic Opportunities: Job creation in solar installation, maintenance, and associated local businesses.
- Entrepreneurship: Empowering woman and children, as they learn the productive use of energy and have the opportunity to expand their market and sell more arts and craft.

Human-Wildlife Conflict Mitigation

- Secure Lighting: Installing motion-sensor LED lighting will deter wildlife from approaching human settlements, reducing the risk of attacks and property damage.
- Community Safety: Enhanced lighting will improve overall security and safety for residents, especially at night.

SUSTAINABILITY AND MAINTENANCE

Maintenance Plan

- Regular System Checks: Scheduled inspections and maintenance of solar panels, and batteries to ensure optimal performance.
- Local Technicians: Training local community members to perform routine maintenance and repairs.

Sustainability Measures

- Maintenance Fund: Establishing a part of the funding for repairs and replacements.
- Energy Conservation Education: Continuous community education on the importance of energy conservation and sustainable practices.

Community Engagement and Training

Community Involvement

- Consultative Meetings: Regular meetings with village leaders and community members to gather input and ensure project alignment with local needs.
- Feedback Mechanisms: Establishing channels for community feedback and addressing concerns promptly.

Training Programs

- Technical Training: Hands-on training for local technicians on solar system installation, maintenance, and troubleshooting.
- Awareness Workshops: Workshops on the benefits of solar energy, energy conservation, and the role of secure lighting in reducing human-wildlife conflict.

CONCLUSION

The solar energy project for Bushmanland is set to transform the lives of the Bushmen communities by delivering a sustainable and dependable energy source. This proposal outlines the necessary steps for successful planning, implementation, and community engagement, ensuring that the River Deep Club/Development Foundation fosters a community-driven solar solution that empowers villages, supports local businesses, and aligns with environmental conservation goals.

This initiative is not only integral to advancing countryside development objectives but also plays a crucial role in mitigating climate change by promoting renewable energy. By reducing reliance on fossil fuels and decreasing greenhouse gas emissions, the project contributes to global climate resilience. Furthermore, it seeks to enhance local skills, bridge the gap between traditional and modern worlds, and elevate the standard of living. Reliable electricity will unlock new educational opportunities for children, enabling them to learn after dark and pursue their dreams. It will also empower women by facilitating entrepreneurial ventures and improving access to resources.

Beyond the immediate benefits, this project embodies a vision for a more sustainable and equitable future. It addresses critical needs in healthcare by providing the power necessary for medical facilities to operate effectively, thereby improving maternal and child health. It fosters economic growth through support for local businesses and innovations that can arise from increased energy access. By incorporating community feedback and ensuring local participation in every step, the project fosters a sense of ownership and pride among the Bushmen communities.

LET'S WORK TOGETHER

Find us

River Deep Club
Texas , USA

Riverdeep Development Foundation, Tsumkwe
Namibia

Contact us

River Deep Club , USA

+1 719-425-0009
jason@riverdeepclub.org
www.riverdeepclub.org

Riverdeep Development Foundation , Namibia

+264 814 6 4959 / +264 81 284 6007
japsie@riverdeepclub.org / razan@riverdeepclub.org
www.riverdeepclub.org