Improving Educational Opportunities and Breaking the Cycle of Poverty

UK Charity Registration No. 1104542

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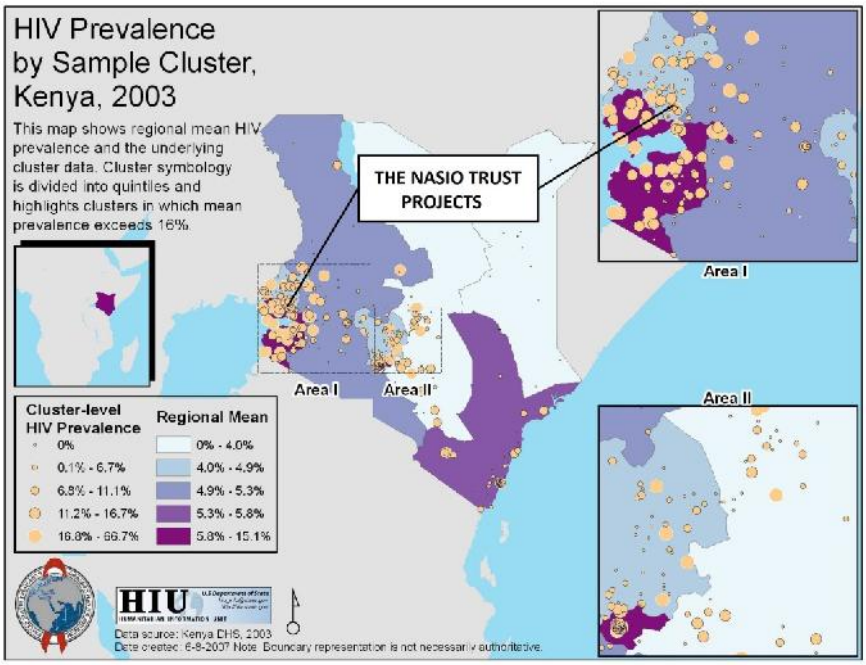
Introduction

We are very grateful to have been shortlisted for KOA's Grant Scheme in 2014.

Noah's Ark was our first day care centre

From humble beginnings 12 years ago in a roadside shack, the Nasio Trust, an Oxfordshire based Charity, now runs two purpose-built day care Centre's supporting over 300 orphans and vulnerable children in Western Kenya, many of whom are HIV positive. The Centres work with the local community to provide education, meals, medical care, and apprenticeship programmes. In the UK we work in partnership with Thames Valley Police, Dalton Barracks Army and local schools in a unique Programme (Nasio Exit 7) giving young people the opportunity to turn their lives around by engaging in positive activities and fundraising events for volunteer work in Kenya. They return transformed, a great way for the Kenyan communities giving something back to the UK young people. For full details on our charity please visit our website (www.thenasiotrust.org) as a charity we are making a real difference to people's lives both in UK and Kenya. HIV has had a devastating impact on communities in Africa, in the poorest sectors of the society. It has resulted in a missing generation of parents, leaving 1.3 million children missing school to care for a sick parent or too poor to go to school because they have to work to support siblings. Many children are now raised by their grandparents or left to fend for themselves in child-headed households.



What do we do?

Through our day care centres we provide education, food, medical care and love. Many children aged six or under, walk long distances some up to 6 miles each day to the centres for an education and a meal – for some, the only meal of the day, this is due to the high prevalence of HIV in the area, which has left children vulnerable and adults too sick to work and support their families.

Amongst our key achievements over the last ten years we have:

- Constructed two purpose-built day care centres with pre-school classrooms, kitchens, dining and medical rooms.
- Provided vulnerable children with pre-school education and support through their Primary and Secondary education. In 2013 we are supporting 309 children at both centres and secondary school.
- Provided medical health care to children and their carers, including HIV awareness training and paying for hospitalisation for more serious conditions, and run medical outreach camps for over 1500 people a year.
- Constructed greenhouses with irrigation for crops at both centres, including smallholdings with livestock. These provide sufficient food for the children and their carers and income through selling any surplus at market.
- Established income-generating projects i.e. making baskets, bags and farming to reduce poverty and empower carers to become self-sufficient.
- Worked with over 60 young people in the UK as part of the Exit 7 programme, culminating in volunteer visits to Kenya.

Our plans for the next five years

- Continue supporting the growing number of HIV and vulnerable children and their families.
- Build a Community Health Centre to provide children and the local community with access to medical care.
- Set up a unit for the production of spirulina as a dietary supplement to help improve the health and wellbeing of children and their families. Surplus spirulina to be sold as another income generating project to help reduce the cycle of poverty, empower families especially women economically, train them in new skills and knowledge.
- Develop apprenticeship programmes for over 18 year olds, for example in mechanics, masonry and carpentry, to help break the cycle of poverty and reduce their vulnerability.
- Broaden our HIV training and awareness programmes to help reduce the incidence of the disease and empower communities to live positively with Aids and reduce stigma associated with HIV/Aids.
- Increase number of UK young people volunteering in Kenya with Exit 7 programme and transform their lives.

Project Activity – Production of Spirulina (What your grant would do?)

The grant would enable us to set up a unit comprising 40 tanks to produce Spirulina, a food supplement. Spirulina is a blue - green algae with minerals and antioxidants, which grow in mineral-rich alkaline water. It has the highest protein content of any natural food (55-70%), it grows in shallow water tanks and doubles its biomass every 2-5 days. The crop productivity is over 30 times more than soy protein, 40 times that of wheat and 300 times that of beef. When harvested and processed it provides a comprehensive, cost effective solution to malnutrition, which is especially important for people affected by HIV/AIDs and can aid in anti-retroviral drugs making them more effective. It improves physical growth as well as cognitive development and immunity in children. It is a great source of dietary protein, B-complex vitamins, iron, anti-oxidants. A recent study with children in Burkina Faso has shown that when added to their diet, either in powder form or tablet, HIV/AIDs children are much healthier, put on weight and develop normally.

Construction of Tanks

Harvesing Spirulina

Extruded Spirulina laid out to dry

Expected Impacts

Your grant will enable production of Spirulina to benefit all especially HIV/Aids children we support, orphaned and vulnerable children in the communities around Western province of Kenya by:

- Reducing malnutrition;
- Improving health and wellbeing;
- Improving school attendance due to better health;
- Improving education and therefore improving futures by breaking the cycle of poverty.
- Improving economic status for families & communities as a self-sustainable project (income for poor families).
- Improving skills and knowledge of the community through cultivating and marketing the product.
- Improving livestock and fisheries as any spare surplus can be used as feed
- Selling surplus to local hospitals will help increase income for carers and help improve health and wellbeing in the wider community. (Spirulina can also be used to reduce bed sores for bed ridden patients)

Scalability and Sustainability

Once the initial project is set up and established, profits from the surplus will be invested expanding productivity and rolled out to the wider communities potentially benefiting over 91,000* school children and over 20 communities throughout Kakamega province in Western Kenya. *This figure is based on the number of primary schools (26 in Kakamega Province) multiplied by the number of pupils (approximately 3,500) per school costing just under .50p per child per day through our feeding programme.

Social and Economic Benefits of Producing Spirulina.

- Spirulina can be produced locally and so has social as well as economic benefits
- Cheap to produce with little training and transferable skills
- Uses simple technology and locally available materials

- Requires much less water to grow than vegetables
- Stimulates the education of local communities about nutrition especially for women who are the main carers
- Can be combined with other local products (e.g. rice,) to be made into locally acceptable food products.
- Very cost effective, contains most essential micronutrients in high concentrations so 1 gram per day can combat malnutrition within a month in children and adults especially HIV/ Aids patients.
- Warm, mild climate in Western Kenya is suitable for producing spirulina throughout the year
- Very easy to digest and safe - it is resistant to most contamination due to highly alkaline environment

Project Timeline

Timescales	Activities
Nov-Dec 2013	Health Dietician Volunteer and Project Manager prepare for commencement of the project. Test soil and water sources in Musanda area. Educate communities, training and awareness of the benefits of spirulina as a diet/food supplement and establish markets.
Jan - Feb 2014	Prepare the ground and install equipment for the production of spirulina and thoroughly test production unit.
March 2014**– Go Live**	First commercial production and harvesting of Spirulina, 10 days after commencement.
March 2014	Train health workers, carers and older pupils in harvesting, drying and storing spirulina.
April 2014	Train school head teachers, health workers and carers in the use and consumption of spirulina.
May - July 2014	Monitor and evaluate children's health and assess level of production against projections
Aug - Dec 2014	Supply surplus to markets and local hospitals
Jan - March 2015	Scale up project to wider communities proportionate to profits from demand
April 2015	Full evaluation and report on the project using data on the weight of children before and after the application of spirulina in their diet and the productivity of the unit

Monitoring and evaluation

A dedicated project manager assigned to the project will be fully responsible for the successful delivery of the outcomes (quality, quantity, efficacy and budget) as set out in the project plan and provide monthly reports on progress. The Kenyan and UK boards will be accountable for all aspects of the project and intervene as necessary to ensure that progress is managed according to the project plan and that it delivers successful outcomes.

To evaluate the effectiveness of the project the following stages will be closely monitored:

Development stage: The unit infrastructure is set up to the right standard and spirulina production during the testing stage meets the required quality and quantity standards

From the Go Live date: Output and quality of the product is key and this will be rigorously monitored and any remedial action taken, as necessary.

Impact on Health: The impact of spirulina on the health of children and the carers will be assessed by monitoring the number of children/carers given spirulina, the data on attendance figures (especially the reduction in absences from school through poor health) data from our volunteer doctor on the general health and development of the children.

Business management and marketing: The amount of surplus spirulina sold in the market and profit derived from sales and how project is scaled to wider communities.

Knowledge and Skills: Evaluation of the level of knowledge and skills of the carers and others working in the unit and the efficacy of training.

How much will it Cost

The total budget for this programme in 2014 is estimated at £27,397. We have already raised £1,500 through fundraising events and individual donations.

We would like to ask Kennington Overseas Aid for a grant of £24,200. This would cover the cost of setting up the production unit and training our health workers, carers, and children over 18 supported by the Nasio Trust, to ensure continuity and standard of output.

The production unit will comprise water tanks (production ponds) in which to grow the culture, equipment for harvesting, drying and packaging as well as training of the carers and cover the cost of transportation to markets.

Budget

	Cost (£)	Notes
Project manager	£1,500	This cost will include travel between projects and providing training and helping set up new community projects
Monitoring and Evaluation	£2,500	On–going with monthly progress reports to the UK & Kenya boards
Training Health Workers, Carers & Over 18's	£1,750	On-going from initiation of project to use of product
Tools for Spirulina production:		
*Production Pond X40	£10,597	Spirulina thrives in alkaline, brackish water. Ponds will be water-tight and open to grow spirulina, able to resist corrosion and be non-toxic.
Growth media (mother culture);	£1,500	Essential for production
Electric Pump	£1,800	Essential for water use
Measuring tools e.g. thermometer	£200	Essential to avoid high alkaline in the water
Harvesting equipment e.g. mesh / drying	£ 500	Avoid contamination, product is sun dried
Paddle (manually stirring the culture in the tank).	£550	Necessary every few minutes
Greenhouse	£2,500	A greenhouse over the ponds or covering the ponds is practically necessary
Clean water tanks / Extruder, dryer	£1,500	Clean or filtered water is necessary to avoid foreign algae.
Packaging for use and for market	£1,000	Essential for markets
Total cost	**£27,397**	

Setting up to 40 Spirulina tanks/ production ponds we will be able to produce 150kg of Spirulina per month.

**The budget has been based on an exchange rate of £1 = 130 Kenya Shillings. Were the value of the Kenyan Shilling were to change considerably, The Nasio Trust would make up the difference.*

How will we account for your money?

The Kenyan Project Manager provides us with annual audited accounts within six months of the end of their financial year as well as monthly narrative and financial reports. Our UK Director is also in regular contact by email and telephone and conducts at least three project monitoring visits in Kenya each year. We will provide you with regular updates as well as a detailed report on project activities and expenditure at the end of the year.

Conclusion

This project will enable communities we support to achieve a better quality of life and escape the spiral of poverty and poor health. It will improve lives for hundreds of families with the chance to build happy, healthy, self-reliant futures. Carers, especially women, will be empowered in establishing long term and sustainable living and be able to take care of their basic needs and those of their families. Through the projects we will also reduce unemployment of vulnerable young people and adults infected with HIV/ Aids improving their health and economic status.

Producing spirulina as a food supplement will help us fight food hunger among poor communities reduce malnutrition in children and support profound health benefits to over 91,000* school children and over 20 communities throughout Kakamega province in Western Kenya.

Support us to make a real difference to the lives of vulnerable children and their communities.

To find out more about us and our projects visit www.thenasiotrust.org/sustainable-farming but these can also be requested by e-mail at info@thenasiotrust.org