



BanaPads

Empowering thousands of girls and women in rural Uganda by providing sanitary pads from natural fibres, so reducing waste

2013 SEED Winner

SEED CASE STUDIES: INSIGHTS INTO ENTREPRENEURIAL SOLUTIONS FOR SUSTAINABLE DEVELOPMENT



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SEED Case Studies Series

Demonstrating Sustainable Development on the Ground Through Locally-driven Eco-entrepreneurship

Social and environmental entrepreneurship, also known as green and inclusive entrepreneurship or eco-entrepreneurship, could play a critical role in achieving a global Green Economy. By embracing the added values of social improvement and wise resource management eco-enterprises that have won a SEED Award are living proof that entrepreneurial partnerships between various stakeholders can create innovative and novel solutions for delivering sustainable development at the grassroots and be economically sustainable.

Over the last ten years, SEED has awarded nearly **180 SEED Awards** to eco-enterprises in 37 countries. While the value of eco-entrepreneurship in delivering sustainable development is increasingly recognised and harnessed in the development sphere, there is still very little data available on the triple bottom line impact of these enterprises and their contribution to sustainable development.

The SEED Case Studies are designed to help fill that gap by generating insights for policy and decision-makers on the role of green and inclusive enterprises in achieving sustainable development, and on enabling factors that can help them overcome barriers and reach scale and replicate.

AT A GLANCE

BanaPads produces affordable, effective and hygienic sanitary pads for women in Uganda, made from the natural fibres of banana plant trunks that are an abundant organic waste in agriculture.

By training women to produce the sanitary pads and in how to market them to other women and school girls, BanaPads works to empower women all along the value chain.

PRODUCTS & SERVICES



Biodegradable sanitary pads



Financial management skills training



Women's health and hygiene training

KEY FACTS

- Location: Mpigi, Uganda
- Founded: 2012
- Active: Central Uganda
- Workers: 741
- Annual turnover: USD 76,100



TRIPLE BOTTOM LINE



Social impacts

- Has benefited over 5,000 people in over 100 villages in Uganda and Tanzania through income generation or education and health improvements
- Has enabled over 4,000 girls to stay in school during their periods
- Has sensitised over 3,800 people to menstrual management, addressing local stigmas around the issue
- » *Creates alternative livelihoods and income opportunities for over 700 women*



Environmental impacts

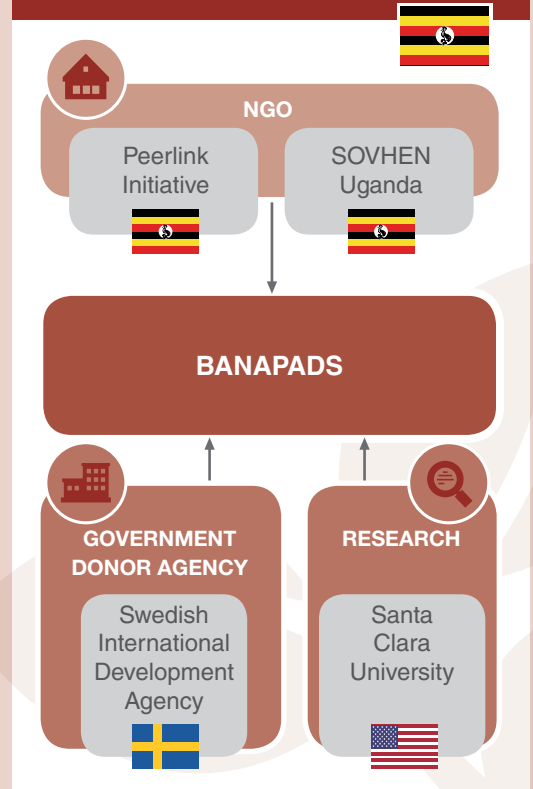
- Has reduced the amount of polluting menstrual products disposed of
- Has generated organic fertiliser from the bio-degradable sanitary pads
- » *Reduces 17,000 tonnes of agricultural waste annually*



Economic impacts

- Increased purchase power for 20-25% of the population in each village
- Has created a new value chain that can be replicated throughout the country
- » *Promotes micro-business development*

BANAPADS PARTNERSHIP



1. Partnering for local solutions

1.1 Local challenges

Poverty and inequality in Uganda

Located in the north of Lake Victoria, the landlocked country of Uganda features abundant biodiversity and unspoilt scenic beauty, and is home to a wide variety of ethnic groups and cultures¹. While rich in water and other natural resources², the World Bank reported in 2012 that over 60% of its 39 million inhabitants lived on less than two dollars per day³. Women are particularly vulnerable to chronic poverty as they face social discrimination on a variety of levels, ranging from access to education and paid employment, institutional inequalities, to physical violence⁴. Through the Uganda Gender Policy framework, the Government of Uganda is committed to address gender equality in the Constitution, which has seen some success, particularly around education. Nevertheless gender inequality remains prevalent and in 2013, the Gender Inequality Index (GII) ranked Uganda in the bottom 25 countries⁵. For instance, “27% of the chronically poor households in rural areas are headed by women with the percentage rising to 40% in the urban areas”.⁶ UNDP also reports that “women still experience unequal access to, and control over, important productive resources, such as land, which limits their ability to raise productivity and even move out of subsistence agriculture”.⁷

Social challenges for menstruating women

Millions of women and girls in developing countries are faced with significant challenges

when managing their menstrual hygiene, and women in Uganda are no exception. A multitude of overlapping issues convert this natural monthly process into a wide range of problems affecting reproductive health, access to education and work, as well as individual dignity and social status⁸: Most women in developing countries can simply not afford the standard brand-made products. In Uganda for instance, with over 60% of its population living on less than USD 2 a day, Ugandan women find it almost impossible to purchase the mainstream imported sanitary products which cost about USD 2.50 per pack. In fact, less than 5 percent of young women and girls can afford a regular supply of sanitary pads⁹. As a result, women and girls are often forced to choose free or cheaper alternatives such as old newspapers or dirty rags to absorb the blood flow, leading to bacterial, fungal or yeast-related infections, cervical cancer and labour complications. Combined with the lack of access to safe and affordable products is the lack of sanitary infrastructure. Poor quality toilets, inadequate facilities to change, and lack of access to water and disposal facilities all contribute to girls dropping out of school or women not being able to attend work. As a result, Ugandan schoolgirls miss up to 20% of schooldays due to menstruation.¹⁰

Finally, lack of awareness and understanding of women’s basic needs as well as social stigma and taboos around menstruation hinder an effective handling of these issues in society, creating isolation and disengagement and regularly leading to harassment.

¹ Rank 164 out of 187 countries worldwide

Fast facts



Over 60% of the population in Uganda lives on less than USD 2 a day

95% of women and girls in Uganda do not have access to mainstream sanitary products

In 2013, Uganda was ranked in the bottom 25 countries worldwide on gender equality

Girls in rural Uganda miss up to 5 school-days per month due to their menstruation

Environmental footprint of traditional sanitary pads

While international efforts are being made to minimise the environmental footprint of feminine hygiene products, the most commonly used sanitary products worldwide are still disposable sanitary pads, most of which are not biodegradable and can take 500-600 years to decompose. In addition, despite new production processes, some can still contain chemicals including pesticides and dioxins, serious environmental pollutants. The lack of waste disposal management and infrastructure in many countries means feminine hygiene products commonly end up on the street or are thrown down the toilets, causing blockages and breakdowns of sanitary systems, both of which can produce added public health problems. Groundwater can be affected by those that do end up in landfills.

1.2 Creating innovative local solutions

BanaPads are affordable, absorbent and hygienic sanitary pads made out of fibres derived from banana tree trunks, an organic waste material that is found freely and in abundance throughout Uganda. The plant does not feature wooden trunks, but pseudo stems that are composed of high-quality, flexible cellulose fibres which can be extracted and used in handicraft or paper making¹¹. Commonly, after banana harvesting, the trunks are left in the fields to rot, and their potential value remains untapped¹².

Local women’s groups collect the banana trunks and supply the raw fibre to BanaPads collection centres. The material is then transported to the production site, where the best fibres are processed by other local women from self-help groups using low-technology machinery and an enzymatic treatment to achieve a highly absorbent product. The sanitary pads are produced by sewing together the absorbent core with layers of paper, utilising only biodegradable materials. By investing in the manufacture of small hand-operated processing machines and by providing training, BanaPads made it possible for the local women, mostly single or female heads of household, to operate small-scale factories in their backyards.

The enterprise uses a franchise model led by young women to distribute the pads in rural areas. The finished products are transported back to the

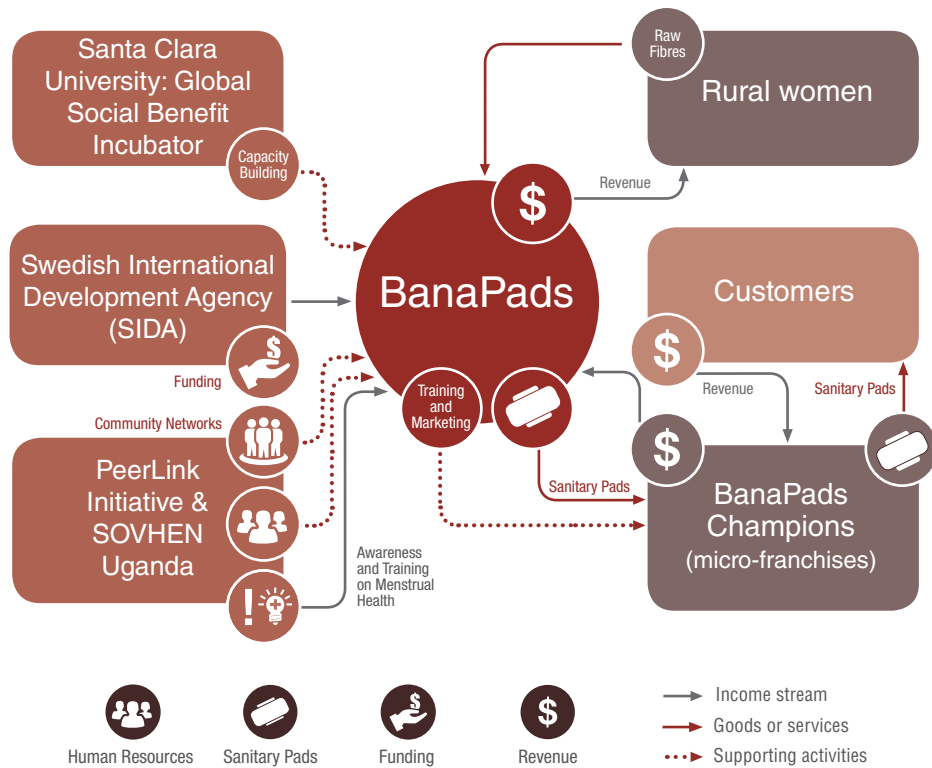
collection centres, from where another groups of young women, female entrepreneurs known as ‘Champions’, pick up their orders² and then market and sell the pads using a door-to-door distribution model. The Champions are provided with a complete start-up kit comprising a branded duffel bag, uniforms, signs for their home store, a display locker, and basic health and business tools. Coupled with a robust two-week training course and ongoing marketing and mentoring support, the micro-entrepreneurs have all they need to launch a BanaPads franchise. The BanaPads Champions earn a commission by selling the pads in their communities and to simplify the monetary transactions along the value chain, the enterprise has recently introduced a mobile payments system.

BanaPads sanitary napkins are sufficiently absorbent that they can be used for 8-12 hours, allowing girls and women to get through a whole day at school or work even if the sanitary facilities there are inadequate. They sell at a price point of USD 0.72 per package of 10 pads, as compared to USD 2.50 for imported sanitary pads, and 50% below the lowest-price napkins on the local market. The fully biodegradable pads are sold along with compostable bags so they are easy to dispose of in the environment without sanitary disposal facilities.



² Champions can make orders through a web based and mobile phone platform that helps them manage their micro-business with real time product information, marketing updates, sales & inventory management, efficient and secure mobile payment system. Existing end users can also use this personal, private marketplace to buy the products discreetly and learn about their use and benefits.

Business model



1.3 The Power of Partnerships

The partnerships

Through Memoranda of Understanding, BanaPads has secured key support from complementary partners at national and international level. To tackle the challenge of stigma and taboos around menstruation, BanaPads has built effective partnerships with Ugandan NGOs that have strong experience in working on reproductive health at the grassroots; they serve as entry points to local communities. At the international level, awards programmes and their grant funding and technical support have proved paramount in enabling the enterprise to tackle the manifold challenges of developing a new and innovative product and production process, building a sound business model, and starting to scale the business towards financial self-sustainability.

Partnership management: overcoming challenges

BanaPads' partnerships with Peerlink and SOVHEN contribute actively to the implementation of the model. This is both a key strength and a challenge. The low profitability of the enterprise means that it has to rely on volunteers

from the partner organisations holding the majority of organisational positions. This limits its ability to grow. Going forward, the enterprise will need to generate sufficient funds to recruit more permanent, skilled, local staff who can handle the day-to-day management and operations of the enterprise.



National NGO

The **PeerLink Initiative** and **SOVHEN Uganda** (Supporting Orphans & Vulnerable for Better Health, Education and Nutrition) are both Ugandan NGOs that focus on reproductive health. They are the main entry point to mobilise the community and they provide workshops on menstruation management and awareness as well as seminars for BanaPads 'Champions'. Both organisations bring resources, skills, expertise and networks to BanaPads and in turn the partnership with BanaPads helps them fulfil their mission which is to increase reproductive health in Uganda.



Research Institute

The **Santa Clara University: Global Social Benefit Incubator** is an American research institute which provides technical assistance through capacity development. It also provides on-going support from its entrepreneurs, Silicon Valley mentors, staff, and students. In the past, the institute also helped BanaPads to refine its business model. In turn, working with BanaPads contributes to the institute's mission of developing the capacity of entrepreneurs worldwide and the students attached to the enterprise who in turn gain credits in college.



International NGO

The **Swedish International Development Agency (SIDA)**, based in Stockholm, supports inclusive business ventures with its programme on Innovations against Poverty. In 2014, BanaPads was selected to receive support and funding for re-engineering its business processes and improve production technology. The partnership contributes to the achievement of SIDA's mission on local social and economic development.

2. Building an inclusive eco-enterprise

BanaPads was registered as a private limited company by guarantee in October 2012, the same year when they started production and opened the production centre. The following year, the enterprise won a SEED Award and strategically utilised the accompanying funding to buy machines and to set up new collection groups for women in villages, which noticeably increased the production capacity. Building on this, BanaPads increased the number of collection centres to 10, each with 30 members, and was able to scale up the number of marketing outlets (BanaPads Champions) to 424. In 2014, the enterprise gained further international support and visibility: with funding from SIDA, it could re-engineer its business processes in a more effective way, and later it was awarded the prestigious African Leadership Network Award as an outstanding social enterprise.

In 2014, the demand for the affordable eco-friendly sanitary pads outstripped BanaPads capacity to produce them. The ongoing transitioning from hand-craft to more mechanised, automated production systems supported by SIDA is facilitating the scale up of BanaPads and expansion of its network of Champions in central and western Uganda & north-western Tanzania. By end of the year, the current system produced at least 79,200³ low-cost sanitary packets (each containing 10 sanitary pads) per day. With the new mechanised system, the enterprise is anticipated to produce 120,000 packets a day by the end of 2015 and 240,000 packets daily by the end of 2016.

2.1 Financial development

In 2012 the founder initiated the enterprise with a start-up capital of USD 15,000 from 'sweat equity'. A year later, BanaPads was able to increase its production by using the SEED Award funding for machinery and to increase the number of collection groups in villages. This enabled the enterprise to increase production

³ This capacity was only reached at the end of 2014 due to the introduction of more automated processes. The production throughout the year was lower.

and so attain revenue from sales of about USD 17,500. With operating costs of about USD 22,400, the enterprise had a loss of nearly USD 5,000, but in 2014, BanaPads received a large grant of USD 180,000 from the Swedish International Development Agency (SIDA) under the Innovation against Poverty programme to support the business expansion by mechanising the business processes. This expansion resulted in a significant increase in sales revenue to USD 76,100. However due to the high investment in machinery and in expanding the sales networks, the operating costs also increased to USD 97,100. The loss was covered from the SIDA grant. More investment is ongoing in 2015 and with the new capacity BanaPads is expecting to turn in an annual revenue of USD 160,118 against USD 203,326 in operations costs. The pattern over the past years of operational costs exceeding the sales revenue means that the enterprise is not yet self-sustaining and relies on external fundraising. However once the processes have been fully mechanised, the production is expected to triple by the end of 2016 as explained above and the management team expects to break even by 2017.

2.2 Employment situation

Banapads workers can be categorised into four groups: headquarter managerial staff (7), women at the collection centres (300)⁴, staff at the production site (10) and the BanaPads Champions (424). The workers at the headquarters and production site are direct employees with full-time employment contracts. For the collection sites, BanaPads has a contract with the women's-groups rather than with each individual worker. The Champions work directly with BanaPads, but are not employed by the enterprise as they are micro-entrepreneurs. All the workers are women, except for the headquarters where two of the employees are men.

⁴ 10 centres, all with 30 members

In terms of wages and salaries, the full-time employees on average earn a monthly income of USD 600. Collectors can earn about USD 14 for 100 kg of harvest. With an annual total harvest of 17,000 tonnes collected by the 300 collectors, this means that each collector can earn up to about USD 7,500 a year. The Champions earn a commission on each pack that they sell but their average revenue varies per Champions.

Fast Employment Facts

Worker

Female workforce



741



99%

2.3 Business Development

The enterprise aims to scale-up by extending its operations into new areas and it has an ambitious agenda for this. It met its 2014 fundraising targets by having one director in charge of fundraising, and this director was successful in building partnerships with donors. BanaPads performed well in recruiting its team at the headquarters and in recruiting marketing and distribution workers. The challenge is that the enterprise is still relying on outside funds to support the costs of expansion.

Another target that BanaPads met was to open up production centres in other regions. They are currently in the process of building a production centre in Tanzania and are awaiting a certificate of incorporation to start building a centre in Burundi. By the end of 2016, the business aims to have 5 production centres in the three countries and in eastern DR Congo. With Uganda producing roughly 10% of world's bananas, it is the second largest producer after India and biggest in east and central Africa. The other three countries are among top 20 producers in the world and with this in mind, the raw material should be sufficiently available to support the expansion plans of BanaPads.



3. Reaching impact

The primary impacts of the enterprise are social as they relate to empowerment of women through household income, health, and education. The biodegradable nature of the product means that it also has positive environmental impacts, while building a new value chain which creates local employment opportunities and income.

3.1 Beneficiaries

Ugandan women and girls benefit along the entire value chain, starting with women collectors who bring the raw material to the production facilities. Other women then earn income producing the pads and then pass the pads through to women micro-entrepreneurs who in turn generate income by marketing and distributing the products in their communities. Menstruating women (customers) are empowered when they purchase and use the final product as they are able to participate in society much more than previously.

3.2 Social impacts

BanaPads has found a way to address a wide range of interrelated challenges facing women in Uganda, from health and education to social status and dignity as well as empowerment through income generation. With each Champion reaching approximately 10 households and 4 Champions per village, plus the workers themselves, about 5,000 people spread over 100 villages across central and western Uganda and north-western Tanzania, or 20-25% of each village, have benefitted so far through income generation or in terms of education and health improvements or both.

Women can generate additional income throughout the value chain. Already over 700 women receive a stable income either in the collection, production or distribution of the BanaPads. With an average household size of 5.2 in rural Uganda^{xiii}, over 3,600 people have benefitted from the additional income opportunity provided by the enterprise.

Women also receive training in savings and borrowing which helps them manage their income and in business skills, making them more self-sufficient. Additional training is provided in hygiene and soap-making. The enterprise reports that the additional income is often allocated to providing for household needs such as food and school fees or is invested in other micro-businesses.

“Women no longer rely 100% on their husbands. By selling the product we can invest in other income generating activities like soap making and selling. I now know how to save and by 2017 I want to start my own shop with the gains from the sales”
BanaPads Champion

Education for women is significantly impacted as the sanitary pads are mainly marketed among young women and over 4,000 school-girls are using the products, allowing them to avoid social discrimination and attend school.

Health is another important social impact of the enterprise. BanaPads are a safe and hygienic alternative to other cheap unhygienic options that are common in Uganda; these often cause infections that can lead to serious health implications. The low price-point of the pads makes it accessible to the families of young women.



Last but not least, advocacy around women's health and hygiene is paramount to the enterprise. They raise awareness about women's health, hygiene and empowerment in whole communities with the aim of lowering the stigma attached to these issues, both among men and women. The first type of awareness raising campaign revolves around enhancing the capacity of girls and women to make healthier decisions about their menstrual management. So far 1,164 secondary school students, 1,400 parish based women and 200 out-of-school youths have been reached. Secondly, BanaPads reaches out to institutions to create a positive attitude towards menstruation management that will support girls and women in their practices and budgets. So far dialogue sessions have been held with 80 school directors and managers, 100 district stakeholders, 120 sub-county leaders, 104 religious leaders and 200 parents. Finally the enterprise trains teachers and community members to teach menstruation management. So far 100 senior women and 480 school staff members have been trained.

3.3 Economic impacts

BanaPads creates regional economic impacts through its training and income generation activities. It also improves regional economic productivity. The training activities and the work itself have already helped 424 women develop business skills including marketing, money management and maintaining a product inventory. These skills can be passed along to their households, suggesting that approximately 1750 people^{xiv} might be benefitting from these skills and have the understanding required to be entrepreneurs and start their own businesses.

The women's income is spent mostly on household goods such as food and education which means that most goes back into the local economy. The income generation also complements the business training: many women invest some of the additional income into other income-generating activities, significantly magnifying the original benefits of the income.

Improvements in productivity are derived from the additional days each month that women can undertake external economic activities. Without proper hygienic products, women are either

exposing themselves to infection or else not being economically active.

3.4 Environmental impacts

The enterprise's environmental impacts relate mainly to the reduction of agricultural waste and the environmentally-friendly disposal of sanitary pads. Annually BanaPads collects about 17,000 tonnes of banana stems which would normally have been dumped to rot or been burned.

As for the disposal of the sanitary pads, at school, girls can dispose of their pads in pad waste bins provided by the enterprise. At home, girls collect the pads in a paper package provided by BanaPads which they can dispose of in a designated community pad bin. The waste bins are made of aluminium which warm up enough in the sun to kill live pathogenic viruses. Every day, a Champion collects the disposed pads from the schools and community pad waste bins/bags and the content is then crushed into small pieces and dried in the sun. The resulting powder serves as natural fertiliser for the land.

In doing so, the enterprise reduces the waste previously created from menstrual products. In cases where BanaPads replace standard commercial pads, this removes potential negative environmental impacts which can occur during disposal.

The enterprise itself has a very low environmental impact as the buildings are not connected to the power grid, generating their own power through solar energy. They also collect rainwater at the production facilities and use the water in the production process.

3.5 Policy impact

BanaPads is still a relatively new enterprise and they report that they have not made any policy impacts yet. However, they are working with local government organisations on training and information-sharing and they aim to collaborate further in the future.

4. Charting green and inclusive growth

IMPACT

Empowering women at the base of the pyramid (BoP)

Women at the BoP are the central beneficiaries of Banapads, acting as producers, distributors, marketers and users of the sanitary pads. The pads allow young women to attend school or work during their periods, reduce the risk of infection, and help the self-esteem of the women. Awareness-raising counters the stigma attached to menstruation. Women along the value chain gain income and skills while. The renewable aspects of the product are impressive as the pads use only biological waste as an input and produce 100% compostable waste as an output.

CHALLENGES

Access to Skills and Finance

One challenge that BanaPads faces is a lack of access to skilled workers. The enterprise currently relies mainly on specialist volunteers for the supervision as it does not have the money to provide salaries for Ugandan experts.

Constant investment for scale-up and modernisation in the last 3 years have translated into a loss each year. However there has been a visible and constant growth in the annual sales revenue and once the new machinery is in place, BanaPads expects to triple its production and become financially self-sustaining by 2017.

SUCCESS FACTORS

Addressing local needs, sound business plan and partnerships

BanaPads' business model is a key factor in the success of the enterprise and is part of the reason that the enterprise is in the growing position it is in today. The enterprise does not have many overheads since the marketeers and distributors work for themselves and have a natural incentive to expand the market for the enterprise. Local partnerships have allowed the initiative to access local communities with ease while foreign experts have provided crucial skills for scaling up the enterprise. Local women's support groups particularly helped with the recruitment of the distributors and in developing a strong backing from the communities.

Finally the product offered by BanaPads provides an essential service that was lacking in the communities. This guarantees a high demand.

FUTURE NEEDS

Welcoming investors, partners and innovation

The enterprise would benefit from new local partners to expand its networks in Uganda, but particularly in Tanzania and Burundi where operations have only recently started.

BanaPads would also benefit from a financial partner or an innovative way of generating capital, potentially by selling more "high-end" sanitary pads with higher revenue margins.

Organisationally, the enterprise could deepen the skills base of its staff through an mentorship programme. They could develop a system where the menstruation management education serves as entry point for identifying and training Champions and develop better transportation and logistics networks to improve its productivity. By certifying its product as environmentally-friendly, the enterprise may be able to qualify for tax exemption status.



Acknowledgements

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About SEED

SEED strengthens the capacity of small grassroots enterprises in developing countries to enhance their social, environmental, and economic benefits, builds bridges between entrepreneurs and policy makers and stimulates exchange and partnership building.

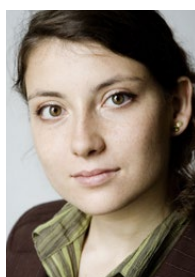
SEED was founded by the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP) and IUCN (International Union for Conservation of Nature) at the 2002 World Summit on Sustainable Development in Johannesburg and is hosted by Adelphi Research gGmbH, based in Berlin, Germany.

Adelphi Research (AR) is a leading think-and-do tank for policy analysis and strategy consulting. The institution offers creative solutions and services regarding global environment and development challenges for policy, business, and civil society communities.

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Notes

This case study is mainly based on interviews and site visits to the enterprise in late 2014 / early 2015, as well as internal documents such as the enterprise's business plan. Additional resources are listed below.


- I Uganda High Commission 2015, Tourism
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- XIV Calculations based on average household size in Central Uganda via: Uganda Bureau of Statistics, 2010, Characteristics of Households and Household Populations
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