mAgri

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About Us

Brastorne is a tech company that seeks to connect rural, unconnected feature phone users to the power of the internet with no need for data or wifi using simple, low-tech mobile solutions like SMS, USSD, and VOICE.

The Challenge

Nearly all of Botswana's 2.6 million inhabitants have mobile phones, yet the majority do not have significant access to the internet. In Botswana (2020), there are more mobile data subscriptions than people (164 per 100 people). Still, 34% of the population lacks access to the internet. Existing socioeconomic disparities are reinforced and made worse by the digital divide between those who have access to the internet and those who do not. Africans without internet connection are disproportionately cut off from the resources, opportunities, and services they require to prosper.

The solution

Botswana is transforming to a 21st century economy, one that is driven by knowledge and innovation. Brastorne's mAgri app offers a revolutionary approach to bridge the digital divide – helping farmers from all across the country, even in remote villages, to trade their goods with just a few clicks. This mobile application, created using USSD technology, aids smallholder farmers in various ways, such as tracking prices, getting access to important market information, access to weather and other data for just \$1.40/month, an 85% cost savings compared to the cost of alternatives



Key Outcomes

Outcome 1: Increased access to communications for smallholder farmers.

ImpactableX, an impact measuring consultancy, looked at the percentage of mAgri subscribers who would otherwise not be able to afford the cost of communications and found an estimated 60% of 60,000 subscribers in 2021, fell into this category). This resulted in 36,000 gaining access to critical and life-improving communications. Each of these subscribers saves \$7.96 monthly using mAgri compared to the \$9.36 average cost of alternatives. Across all 36,000 subscribers gaining access to communications, mAgri saves this group a total value of \$3.4M annually.

Outcome 2: Increased Yield

Crop

Total Smallholder Farmers in Botswana: 454,864

Brastorne will serve 33% of them from 2021 - 2026

With mAgri, crop yields are estimated to increase by a net of 7% annually, resulting in an increased annual harvest value of \$19.34 for men, and \$17.84 for women, at an average of \$5.44/kg. Most smallholder farmers live off of their harvest, selling only a fraction for income. Men sell approximately 26% and women sell approximately 20%. With mAgri, their income increases by an estimated \$5.03 and \$3.57 respectively, roughly 0.15% of their baseline annual income of \$3,360.



Livestock

Total Smallholder Livestock Farmers in Botswana: 340,55

Brastorne will serve 38% of them from 2021 - 2026

With mAgri, livestock yields are expected to increase by a net of 7% annually, resulting in an increased annual harvest value of \$364.27 for men and \$185.16 for women at \$27/kg. Men sell approximately 26% and women sell 20%, so their income increases by an estimated \$94.71 and \$37.03 respectively or roughly 43% and 13% of their baseline annual income of \$3,360.



Outcome 3: Increased revenue for women smallholder farmers.

Women play a major role in the Agriculture sector in Botswana. While men still dominate, women represent nearly 40% of crop farmers and 23% of livestock farmers. With access to farming data, these female farmers are able to better manage their holdings, increase their harvest, and sell at fair market value. This is a major priority for the country. Botswana Vision 2016, a government-driven initiative, recognizes the need to "develop the role of women in the mainstream."

mAgri enables female smallholder farmers to generate enough crop and livestock yield to feed their family and friends and still have enough surplus to sell.

Vuka

Vuka facilitates and accelerates convenient communication through USSD in mAgri, allowing users to chat, send in-person messages, or broadcast messages on both the low-end feature phones that are most prevalent in rural farming areas and more data dependent smartphones.

Vuka is revolutionizing the way crop and livestock farmers connect with one another, bringing an unprecedented level of convenience to communication. Similar to WhatsApp,this revolutionary technology brings internet connectivity to areas that lack access so that farmers have the opportunity to quickly exchange information on crops, prices, availability, and best practices. As a result, they're empowered to make better decisions based on accurate, up-to-date data, enabling them to optimize yields, reduce costs, and maximize profit potential. This greatly improves their livelihoods without them ever having to leave the farm.

By leveraging the power of Vuka to chat with other users, farmers are cultivating success right at their fingertips!

