Vision: To build a world where people take control of their environment in rewarding, sustainable ways

Mission: To develop and commercialize life-changing technology that solves the biggest daily challenges for the world’s 570m smallholder farming households
**Case Study, Josephine Waweru, Sagana - Video**

Josephine is 52 years old, married and has four children. She is living on a farm located in Sagana of approximately three acres. Her main source of livelihood is farming and she supplements this with knitting.

Since buying SunCulture’s solution in September 2019, she reports that the primary **benefits of the RainMaker2 pump include time saved and the ability to grow many more crops**. She feels more confident about her coffee yields, noting that before purchasing the pump, she was stressed about her coffee yields, but that now “she is in a good place”. She has also **introduced fish farming and expanded her crop range with potatoes, capsicum and planted additional coffee plants** after purchasing the pump.

The shift from a diesel pump to the solar-powered pump **saves her an approximate 10,000 KES per month**. These realized savings has enabled her to diversify into fish farming and to plant additional coffee bushes.  

“I was visiting my friend and he had the SunCulture pump, and I imagined if only it were mine. Since I got the pump, it has changed my life because I used to hire petrol pumps to pump water from the river. Now that I have the pump, I can pump from my own borehole and it has made things easier and it is saving me time. I think it’s the best thing that’s ever happened since I started farming.”

“I had my doubts. I thought this pump couldn’t be real. But when I visited my friend [with a SunCulture pump], my doubts were cleared… This is something that will change your life like it changed mine.”
Case Study, Jamleck Gichobi, South Ngariama - Video

Jamleck is 63 years old and is a reverend and farmer, living on his farm with his wife and son. This season they are growing sukuma, cabbage, carrots, chilis, and bananas. They also have a dairy cow and chickens on the farm.

Jamleck purchased the SunCulture ClimateSmart Battery plus RainMaker2S with TV add-on in October 2019. He reports that the availability of water at his farm was the biggest constraint previously and after installation of SunCulture’s pump he reaps multiple benefits including:

- The water pump from the well provides clean water for animal consumption which has significantly reduced infections in his dairy cow and increased his milk production from an average of 15 liters to 24 liters per day.
- As a result of his oxen no longer need to physically carry water, they’ve now fatted. This was also a tedious process that required a lot of Jamleck’s time which he can now dedicate to other activities.
- Solar lights have saved him the cost of purchasing a paraffin lamp and his son is able to study at night under comfortable light levels.
- Jamleck has also diversified his crop farming due to increased water access.

“The benefits I have gained from this system are what I want extended to someone else, because people struggle because of water. Those of us who have SunCulture have been pleasantly surprised. So everyone who has a borehole, instead of struggling with petrol pumps, just try SunCulture.”

“My cows weren’t getting enough water; milk production is affected by water intake… but when we got the water connected, they were getting enough water and milk production increased.”
Case Study, Japhet Muthami, Kitui

Having grown up in a farming family, Japhet loved farming since he was a boy. After highschool, however, Japheth moved to Nairobi to support himself and his family as a hotelier but ultimately made the decision to farm full-time.

Japheth spent 6-8 hours per day collecting water manually and yet produced very little yield. He tried using a hand pump and a traditional generator, but these options either didn’t provide enough water or were so expensive that he found he was losing money.

Japheth came across SunCulture after looking online for irrigation solutions, and then visited a demo site. He has been irrigating his farm with SunCulture’s ClimateSmart Battery plus RainMaker2 system for about a year, and then bought additional units to irrigate different areas of his farm, including SunCulture’s ClimateSmart Direct plus RainMaker2 and Direct Drip units.

He initially just planned to add a few other vegetables to his farm but decided to add oranges, mangoes, bananas, guava, and papaya to his farm after he realized that the SunCulture system provided more than enough water to support all these crops.

He has since tripled his monthly income from 12,000 to 37,000-40,000 KES per month and can continue harvesting during the dry season. He’s taken advantage of SunCulture’s Pay-As-You-Grow financing option, allowing him to pay small monthly installments, since he has completed payments ahead of time he currently pays 3,100 KES per month. On top of the high yields and increased income, this is the first time Japheth has electricity in his home.

He advises existing farmers to “get the system because it will make farming easy.” When asked if there is anything he’d like SunCulture to know, he responded, “SunCulture, kudos. You have really helped me. God bless.”

Note: Japheth is the man in the striped shirt in the centre
Quality of life impact on farmers

60 Decibels conducted an impact survey on SunCulture customers in September 2020. The average land size per farmer was 1.5 acres and the farmers had the system for 12 months on average.

On average, the respondents had been using SunCulture products for 12 months and 83% used the pump for farming.

48% of farmers were using manual methods and 29% fuel pumps to irrigate before SunCulture, top motivators to buy a SunCulture system are reliability and lack of prior access.

*Note: Survey data regarding irrigation sources were taken from an old survey done from March 2020.
Quality of life impact on farmers contd.

60 Decibels conducted an impact survey on SunCulture customers in September 2020. The average land size per farmer was 1.5 acres and the farmers had the system for 12 months on average.

87% reported an increase in production and 81% of those did so without planting additional land.

80% of farmers reported an increase in money earned, an increase in harvest and cost reduction being the main drivers.
Quality of life impact on farmers contd.

60 Decibels conducted an impact survey on SunCulture customers in September 2020. The average land size per farmer was 1.5 acres and the farmers had the system for 12 months on average.

Farmers reported an average revenue increase of 44% per season and a majority of this increase was significant for the household.

- **50%** of household income last year came from crops that were irrigated using SunCulture’s solar water pump.
- **44%** average increase in revenue from crops that were using SunCulture’s solar water pump.
- **78%** Rated this change a significance of 4 or 5 when thinking about its contribution to household income.

**Household Income Impacted By SunCulture**
Q: In the last 12 months, what proportion (%) of your household’s total income, came from crop? (n=229)*

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost all (75-100%)</td>
<td>28%</td>
</tr>
<tr>
<td>More than half (50-75%)</td>
<td>25%</td>
</tr>
<tr>
<td>Less than half (25-50%)</td>
<td>19%</td>
</tr>
<tr>
<td>A little bit (1-25%)</td>
<td>15%</td>
</tr>
<tr>
<td>Nothing</td>
<td>14%</td>
</tr>
</tbody>
</table>

**Change In Crop Returns**
Q: Can you give a rough estimate how much your money earned from farming has increased because of SunCulture’s solar water pump? (n=251)

- **No change or decrease** 17%
- **Increased by a little (0-25%)** 9%
- **Increased by less than half (25-50%)** 25%
- **Increased by more than half (>50%)** 18%
- **Increased by 100%** 11%

**Significance of Change in Crop Returns**
Q: On a scale of 1 to 5, where 1 is not significant at all and 5 is very significant how significant is this increase to your overall household income? (n=165)

- **5**: 26%
- **4**: 52%
- **3**: 19%
- **2**: 2%
- **1**: 2%
Quality of life impact on farmers contd.

60 Decibels conducted an impact survey on SunCulture customers in September 2020. The average land size per farmer was 1.5 acres and the farmers had the system for 12 months on average.

95% of the farmers reported improvements in their quality of life because of SunCulture’s Solar Water Pump.

SunCulture’s impact on money earned, farming outcomes and way of life deepens over time.

Perceived Quality of Life Change
Q: Has your quality of life changed because of SunCulture’s solar water pump? (n = 256)

- Very much improved: 80%
- Slightly improved: 15%
- No change: 5%
- Got slightly worse: 0%
- Got much worse: 0%

Experience and Farming Outcomes by Tenure

Key: Farmer Tenure
- 12 months or less n = 170
- 13 months or more n = 81

- Way of Farming
  - 68% reporting “very much improved” because of SunCulture solar water pumps

- Production
  - 69% reporting “very much improved” because of SunCulture solar water pumps

- Money Earned
  - 68% reporting “very much improved” because of SunCulture solar water pumps

- Quality of Life Impact
  - 83% reporting “very much improved” because of SunCulture solar water pumps

- Net Promoter Score®
  - 81% Promoters

- Challenges
  - 0% “no” challenges with SunCulture
Resilience and recovery from Climate Shocks

60 Decibels conducted an impact survey on SunCulture customers in September 2020. The average land size per farmer was 1.5 acres and the farmers had the system for 12 months on average.

96% of all farmers said their community experienced at least one climate related shock in the last 24 months.
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...by developing and commercializing life-changing technology that solves the biggest daily challenges for the world’s 570m smallholder farming households.