

Impact Report Batrica, Chad

June 2024



Data collection / Product
Evaluation / Batteries

Date
June 2024

Site
Chad

Company

BATRICA



“Yes, the batteries make our daily life easier”

Chad, Male 23

Executive Summary

This Batrica impact report shows that 100% of respondents experienced positive impacts, while only 1.6% reported negative effects. The impact is particularly evident in terms of quality of life, access to affordable electricity and inclusive, safe, resilient and/or sustainable communities. Key benefits include improved phone charging, reliable electricity, better lighting, enhanced study conditions, and cost-effectiveness. Although some users noted issues such as battery duration and overheating, these were rare. Only a few people reported a positive impact on income, gender equality and economic empowerment. While overall only 9% of the sample constitute women, men and women perceived the impact on certain categories in a very similar manner. Women reported even more frequently than men positive impacts on quality of life, gender equality (only 5%) as well as safe and resilient communities.

Purpose & Methodology

The Batrica Impact Report is based on a household survey with 258 households across 10 project locations in Chad in June 2024, presenting a 90% confidence level (at 5% margin of error) for the total customer group (no representativity per single project site). The questionnaire was developed and the data collection was coordinated by leonardo while Batrica collected data through their own project staff.

The purpose of this study was to get a first quick understanding of Batrica's impact based on customer voices before engaging in a more rigorous assessment later this year that will track standardized metrics over time in a difference-in-differences study design. The current methodology for this snapshot is based on best practices like the Impact Management Project (Source: Impact Management Project (IMP) – Using self-reported data for impact measurement. How to use stakeholder surveys to improve impact performance).

The study tries to capture “causality” by asking directly for the perceived impact on different dimensions (see constructs in table above) of our product on certain dimensions as well as asking additionally about the availability of alternative solutions that might have had similar effects and the influence of other factors besides our intervention (counterfactual). Additionally, the survey asked for positive and negative effects through open-ended questions, helping to avoid blindspots in terms of impact opportunities and risks that might not be captured through our quantitative indicators and closed-ended questions.

Data Collection

Collection methode	Respondents	Length	Representativity
Household surveys	258 Households	52 Questions	>90% confidence level 5% margin of error

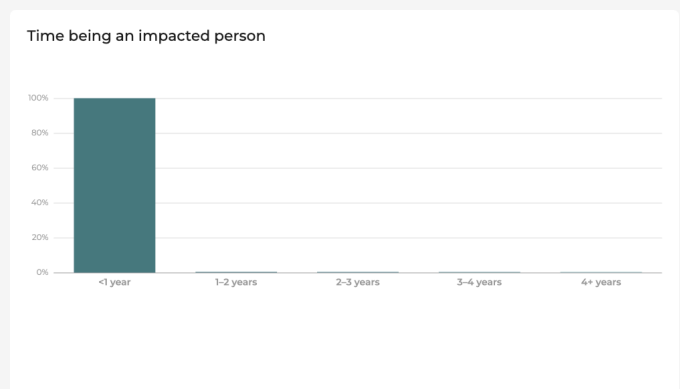
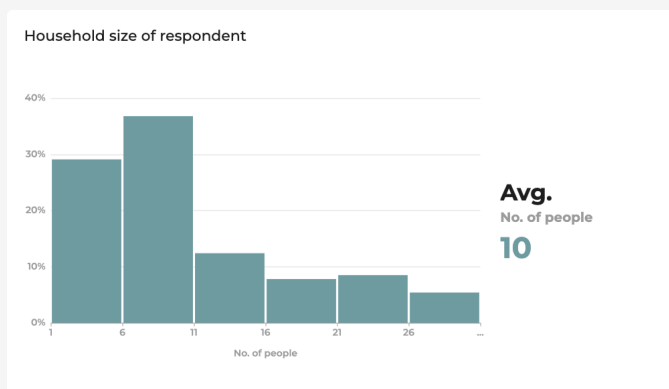
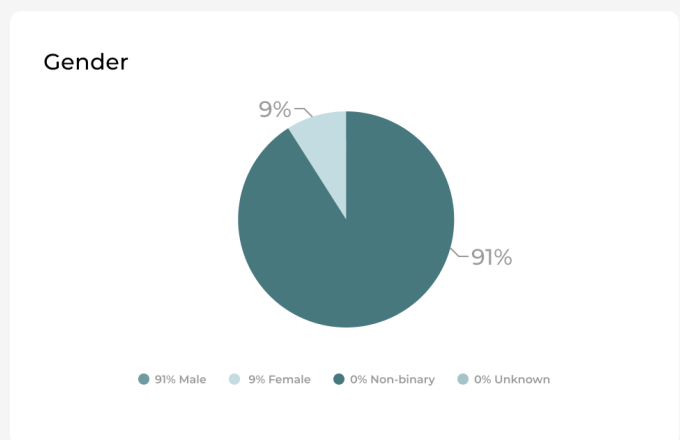
Welcome to your leonardo impact analysis

We listened to 258 households in 10 project locations in Chad. Here is what they said!

WHO

Gender

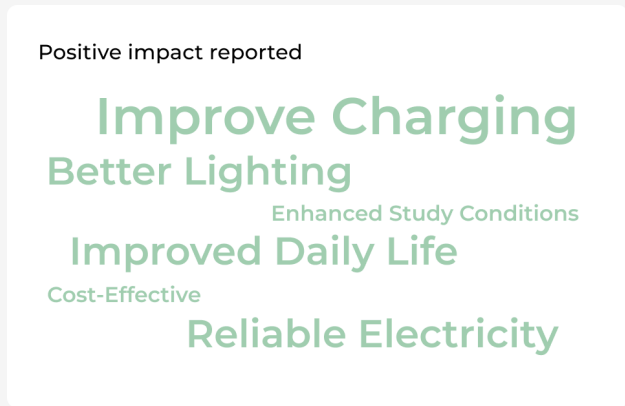
9% of respondents are female, 91% are male. Please note that while it is typical to conduct the household interview with the head of the household, it is the whole household that typically experiences and benefits from Batrica's solution.



WHAT

100%

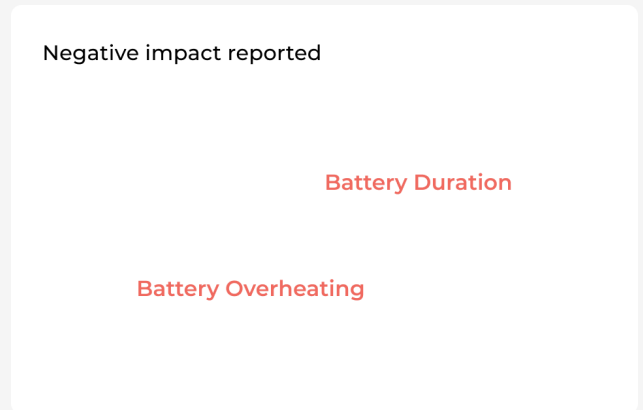
Customers experienced positive impacts



RISK

1.6%

Customers experienced negative impacts



Answers that stood out

"Yes, of course, thanks to the batteries that charge my phones" - Male 21

"Yes, enormously, access to reliable and constant electricity." - Male 27

"Yes, to light up the children at night" - Female 30

"Yes, the batteries make our daily life easier" - Male 23

"Yes, the children do their homework in the evening thanks to the light." - Male 25

"The battery duration" - Male 44

"The batteries are too hot" - Male 32

Summary of open ended responses

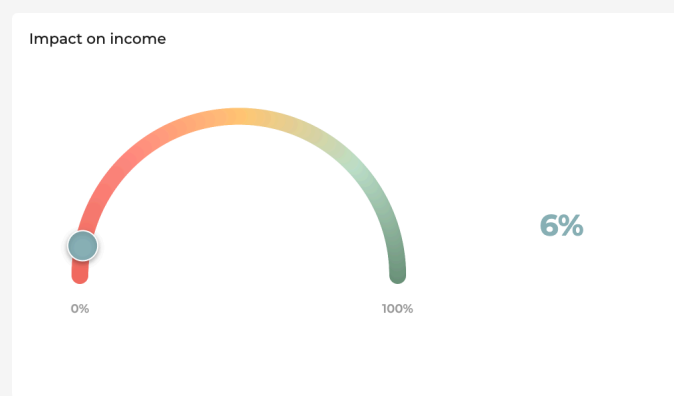
The analysis reveals that Batrica's rechargeable batteries have a significant positive impact on users' lives, with 100% of respondents reporting improvements and 1.6% reporting negative effects. Key positive impacts include improved charging capabilities, reliable electricity, better lighting, enhanced study conditions, and cost-effectiveness. Although some users mentioned issues like battery duration and overheating, these were infrequent.

Positive impacts were more commonly reported by males, particularly in the 15 to 30 age group, and in households with larger numbers of children. The batteries were especially appreciated for their ability to provide consistent light and reliable phone charging, enhancing overall quality of life.

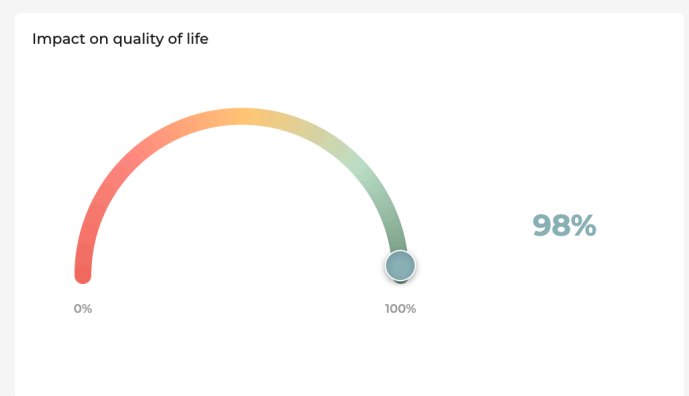
HOW MUCH

Percentages below show the proportion of impacted people reporting that the product or service offered by Batrica improved a certain impact category (aligned to the SDGs) a little or a lot.

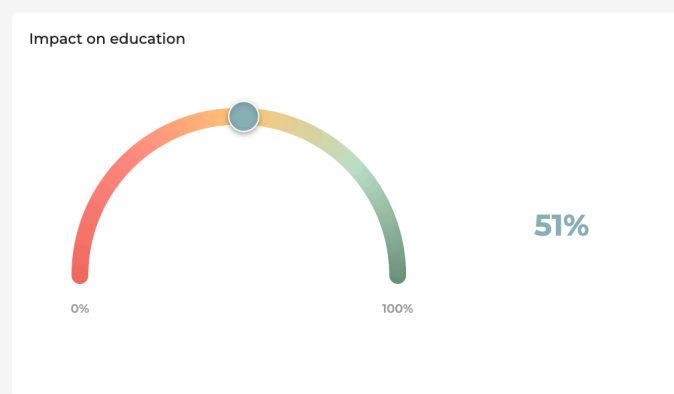
SDG 1



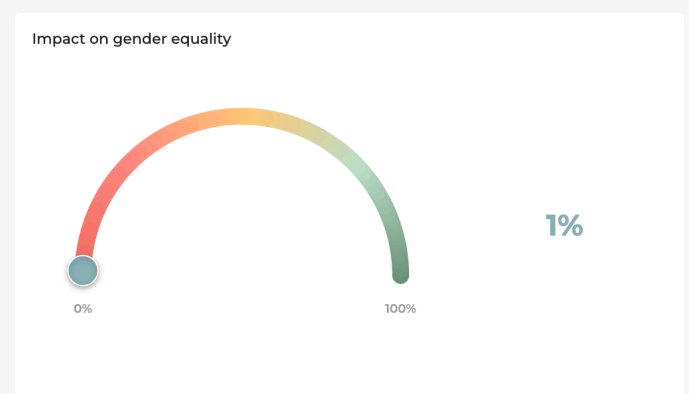
SDG 3



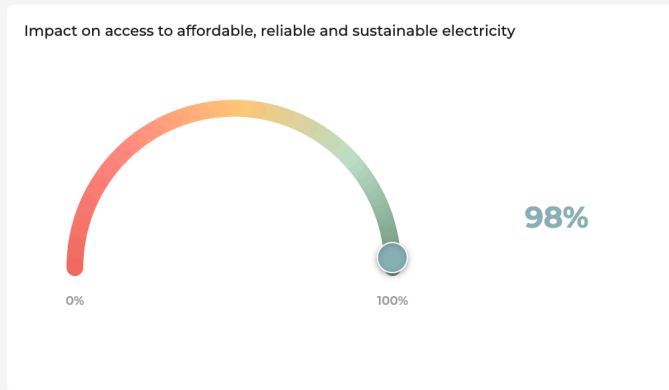
SDG 4



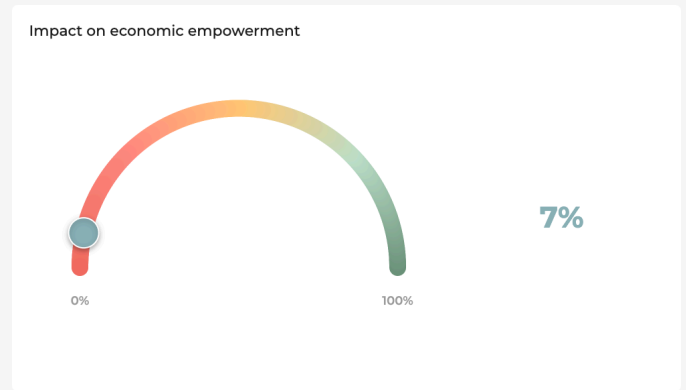
SDG 5



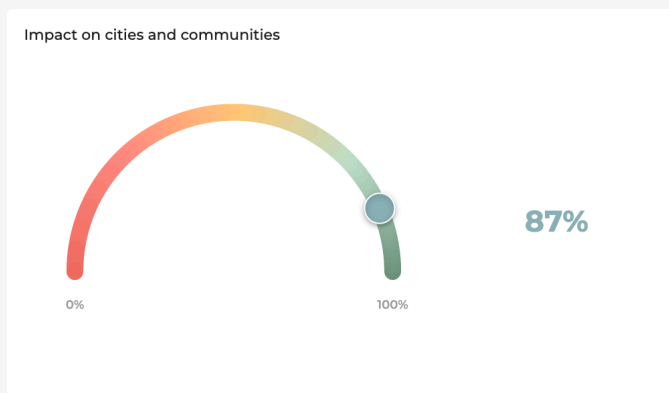
SDG 7



SDG 8



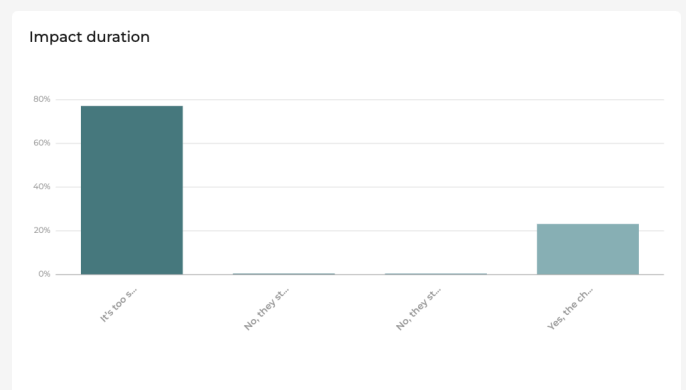
SDG 11



Contribution

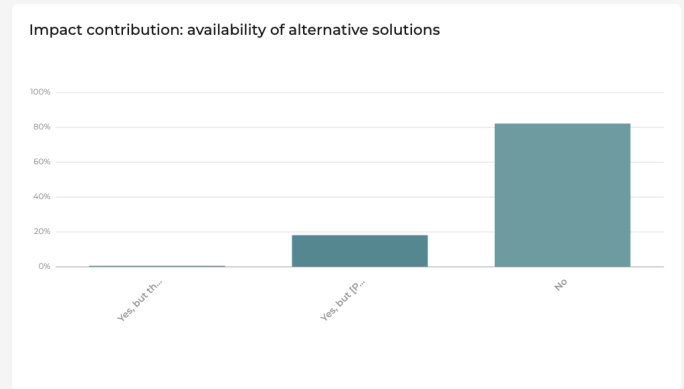
Impact duration

Quantifies the perceived duration or lasting effects of changes resulting from interactions with Batrica. 77% say “It’s too soon to know”, while 23% says “Yes, the changes have been long lasting.”



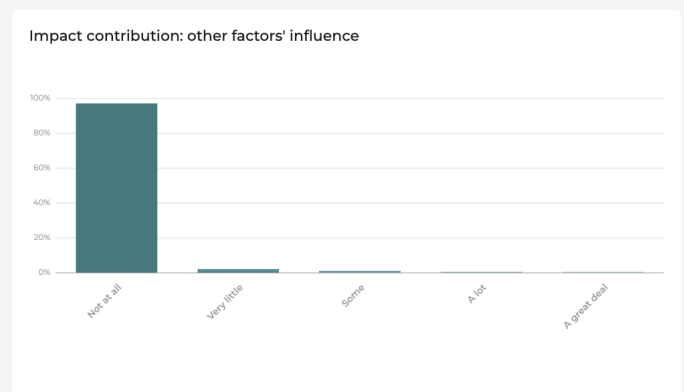
Availability of alternative solutions

Assesses whether there are alternative solutions to the specified product or service that can provide similar life improvements. 18% say “Yes, but Batrica’s product is better”. 82% say “No”, implying a strong contribution of Batrica on the observed changes as similar changes have likely not occurred without Batrica’s product (hypothetical counterfactual).



Other factor’s influence

Assesses the extent to which factors other than the specified product or service have influenced or contributed to observed changes. 97% say “Not at all”, 2% “Very little”, 1% “Some”. Again, this implies a strong contribution of Batrica on the observed changes as other factors have not played a strong role (hypothetical counterfactual).



More data, gender, site, and age comparisons and disaggregations can be found on Batrica’s interactive impact dashboard, powered by leonardo.

About



Batrica (Powered by MOPO) offers to install solar offgrid stations to provide an energy solution to populations that do not have access to electricity. Every station consists of 300 Lithium-Ion batteries of 50 Wh each. The batteries are charged by solar energy and, once full, rented without obligation to users for 24 hours. Batrica is responsible for investment, maintenance and distribution.

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leonardo is an impact-driven software company that supports impact organizations and their capital providers to measure, verify and report their impact.