

# Using Photo Elicitation to Explore Time Use Patterns ETHOS 2019



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# Why do we care about time?

Globally women work longer hours than men, often shouldering the burden of unpaid work, such as household chores and child care.

Decreases opportunities to take up income-generating opportunities, educational programs, as well as social activities (UN 2015) leading to economic poverty and a persistent drudgery trap.

The significant time demands and persistent drudgery created by a reliance on traditional biomass stoves have been well recognized (Blacken, M. 2006; ADB 2015).

Time burdens often arises from the constant demands of fuel collection and preparation as well as from long hours cooking on an inefficient, polluting stove.



- Hypothesis:
  - Cooking, collecting, and preparing firewood is arduous and demands significant amounts of time.
  - The use of a cleaner more efficient cooking technology (“improved”) can impact on time use patterns, and potentially lead to changes in time poverty, time quality, and perceived drudgery.
- Study aims:
  - Identify and understand any changes in time use, as well as quality of time after introduction of an improved cookstove.
  - Explore the value, role, and feasibility of various data collection methods.

Intervention technology: 1 or 2 Kuniokoa wood-burning stoves (BURN, Kenya)



# Mixed-methods approach

Appropriate for research aims requiring an understanding of context, multi-level perspectives, and cultural influences

Used an explanatory sequential mixed-method design (Ivankova, N. 2006)

Quantitative data to assess magnitude and frequency of impacts is collected first, followed by qualitative research methods used to explore and interpret the results.



**Before-after design** without control group over 8 months

**Total sample:** 55 homes across 3 villages

**Data collection methods:**

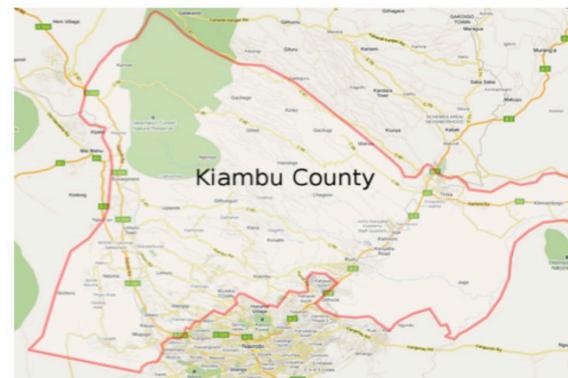
Survey (all)

Stove use monitoring (all)

Cooking observations & participatory interviews (subset)

Focus group discussion (1/3 communities)

Photo elicitation (2/3 communities)





# What is Photo Elicitation?

Qualitative research method carried out to generate a **richer understanding** of the situation from the **participants' point of view** through the use of visual and narrative data.

Provides an opportunity for **triangulation with the other data** collection methods

Allows for the participants to expand and **tell a story** that is detailed and self-reflective.

Similar to Photovoice – though PV aims to work with participants to identify priorities and strategies for social action. More of an intervention approach than a research method.

# Our PE study methods

A scenario was presented to 10 participants along with a digital cameras at the end of the study.

About two weeks later the participants attended a focus group discussion (FGD) to talk about the photographs they had taken.

A woman living in a village similar to yours is interested in buying a stove like the Kuniokoa but isn't yet convinced it is worth spending her money on.

To help her make the decision, she wants to know about all the different ways, good and bad, that it might affect her life, as well as that of her family, including her husband, children and mother-in-law.

Please take any pictures of any object/person/place/activity that you think helps tell this story. If you think there are any solutions to any of the negative effects, please also capture those.



## Data processing

Received nearly **2000 photos**.

Sorted into **broad themes**, and research team selected up to **30 photos per participant** to print.

Chosen for **content NOT beauty!**

**Women then selected 6-8 to bring to the FGD.**

During FGD, we asked:

- What is this photo showing? What is happening?
- What does it represent in terms of the effects a stove like the Kuniokoa might have on people?
- What is important about this photo to you? Why did you choose to take it?
- What do others here think? Does anyone have a photo similar to this?

# Data analysis and results

**Reviewed the transcripts** alongside the photographs to allow the participants' words to elucidate the story behind the images.

**Coded according to reoccurring themes** seen when reviewing the photographs. Nvivo codes were added as unanticipated themes were introduced by the participants.

## Examples of emerging themes

- Patterns of Kuniokoa use by cook and family members

  - Location of cooking -- on the farm, in the main house etc.

  - People carrying out the cooking -- children, male family members

- Changes in habits related to fuel wood collection and preparation

- Impacts on daily routines

- Kitchen environment

- Risks and level of comfort associated with cooking

# Time is money

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**“[The] Kuniokoa has helped me because .....I have time for working for myself.** Before, I used to hire someone to do the work for me as I go to collect firewood, so now am saving money because the money I was spending on... hiring people to do farm [work] I don't spend because am doing the work myself, because I have a lot of time...so this stove has really helped me, and I have more time for doing other things that can help me in life”



## Men like technology

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“According to the way we were brought up a while back, women were known to be responsible for cooking, **men were not cooking, but since getting the Kuniokoa, they don’t fear to cook.**”



# Warm water has many advantages

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“There might be someone who keep[s] livestock, and [has] some difficulties while milking because [they] milk the cow using cold water because of [a] lack of firewood. **I want to show them that one can collect little amount of fuel and heat water for milking.**”



## Quick lighting gets evening chores done

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“She did not use [the three-stone fire], she..said that she will light this one [the Kuniokoa], it is good because she has come from school [...] very late, so it was helping us because if it is heating her bathing water: she will heat from here and she baths very fast”

**“She will do her things on time because if it is her homework she will still do it, for instance, if it is the other stove that we were using before, you find that she was even late to do her homework, but after having this stove, I see that it is helping us because it helps you do things on time.”**

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# Method Limitations

Photo elicitation does have limitations.

Training is needed for participants and the research team

Some participants not comfortable enough with the technology

Method may be vulnerable to bias

Analysis is involved and thus expensive

## What did PE add to the study?

Highlighted that partial adoption is not a failure. Kuniokoa use is context specific and has some significant impacts despite not being complete.

Put a spotlight on an economic story that we weren't necessarily looking for.

Brought context and detail to the role of teens in cooking and chores, which hardly registered in the quantitative results.

Provided insights into the delegation of tasks among the household members, revealing possible unintended consequences.

Offered enhanced value to the participants.





# Thank you!

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