World Bank Energy Study
Household and Enterprise Energy Diaries
SAMUEL HALL

# **Baseline Survey: Fieldwork Update**



Project background

Where do we stand?

Fieldwork photos

First data

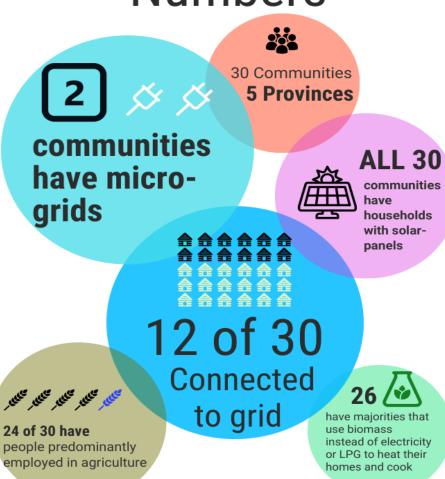
Next steps

# Locations of study

- Kabul
- ☐ Herat
- Paktia
- Samangan
- Daikundi



# Communities by the Numbers

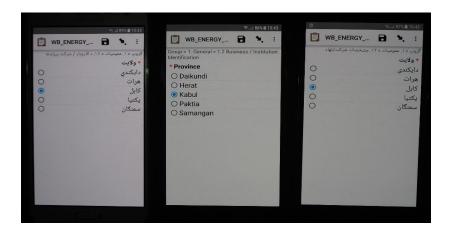


# **Baseline Survey**

	Household Survey	Enterprise / Institution Survey
Kabul	600	50
Herat	600	50
Samangan	600	50
Daikundi	600	50
Paktia	600	50
TOTAL	3000	250

#### How do we collect the data?

- Electronically, with ODK collect. It allows us to check the data quality on daily basis, take photos of energy sources and appliances, and accurate locations for survey respondents to assist in longitudinal study.
- Over 100 smartphones used to collect and upload data for this project.
- Paper "props" are used to illustrate certain concepts such as "solar lanterns" or "rechargeable batteries".





# **Qualitative Data Collection**

	Community Member FGDs		Small Business /	TOTAL (Province)
	Male	Female	Enterprise FGDs	
Kabul	2	2	2	6
Herat	2	2	2	6
Paktia	2	2	2	6
Samangan	2	2	2	6
Daikundi	2	2	2	6
TOTAL	10	10	10	30

### Fieldwork Logistics

Dedicated field staff for the project include a number of profiles.

- Field Coordinator
- Team Leaders (2 in each province)
- Enumerators (20-22 in each province, with half women & half men composition)
- Community Focal Points (one in each community)

In addition, Project Team staff based in Kabul will oversee fieldwork where possible given security and access constraints. Analytics pillar staff in Berlin is in charge of data checks and data management.

### **Enumerator training**

- Training is undertaken on a rolling basis, and conducted by Samuel Hall's experienced Field Coordinators and trained Team Leaders in each province.
- Training of Team Leaders (who act as supplemental trainers in the provinces)
   was included in the initial Kabul training
- Training of the Kabul team conducted first in Kabul, and then deployed to the communities.
- These trainings are a week-long thorough process to ensure the capacity of enumerators to explain, work with and complete the survey
- The training involves test pilots for enumerators in all locations.

#### **Timeline**

- The plan is to use the large teams of enumerators (20-22 per province) with a survey collection target of 3-4 surveys per day.
- The fieldwork did not begin in provinces simultaneously but will be done on a rolling basis with overlap between the fieldwork periods in each province.
  We aim to complete the baseline before Ramadan.

Location	Week of Training &	Fieldwork Starts	Fieldwork Ends
	Pilot		
Kabul	8-12 April	14 April	26 April
Herat	15-19 April	20 April	28 April
Samangan	14-18 April	19 April	28 April
Paktia	29 April- 3 May	5 May	14 May
Daikundi	30 April- 4 May	5 May	14 May

# **Training Session**

**Training in Kabul** 



#### **All Team Leaders**



# Team Deployment in Langar Village, Qara Bagh District of Kabul

**Team Leader & FP talk with Wakil** 

Female enumerator being helped up a ladder onto a roof





# During the HH Survey

**Household Interview in Langar** 

Household Interview, TL checks the interview quality





# **FGD Sessions**

Women FGD at a house



## **Community FGD at Mosque**



# **BE&CI Survey**

**Tailoring Shop Survey** 



### **Local Shop Survey**



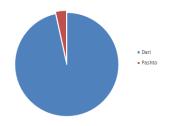
# Fieldwork Impressions

People work in their farms

**Water Supply Utility (Private Owned)** 



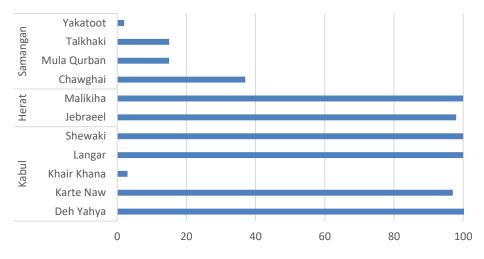




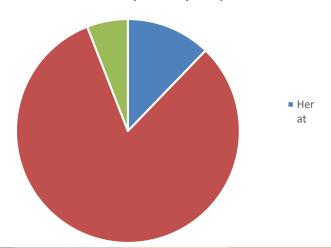
## A brief first look at the quantitative data

- As of 04/22, 686 household surveys and 62 enterprise and institution surveys.
- A considerable number of female primary respondents due to men being out to work during the day.
- Slightly less than half of the respondents thus far are literate.

#### Locations of household interviews to date

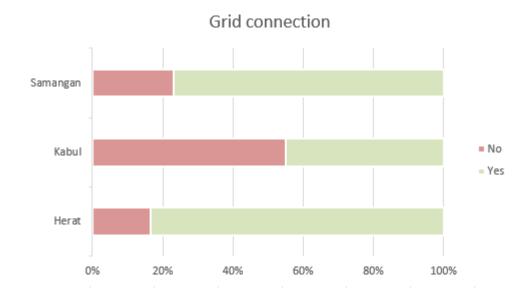


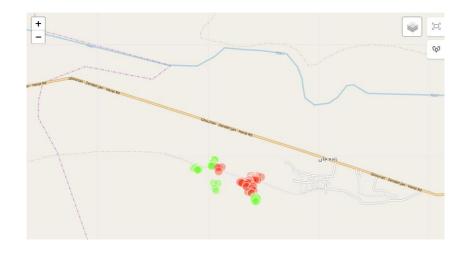
Gender of primary respondent



#### **Grid connection?**

- The majority of the sample thus far does have a grid connection. (This will likely change).
- Most have had the grid connection for five years or fewer. Those who do not have it expect to get it shortly.
- Grid is not uniformly available even within a given community. (Example Herat: →)





#### Other sources?

- Thus far, no minigrid and no pico-hydro system.
- Only 10% regularly rely on a fuel-powered generator.
- Only 6% regularly rely on rechargeable batteries (such as car batteries.
- Close to 50% of households interviewed thus far have used a solar home system or a solar lighting system in the past year.



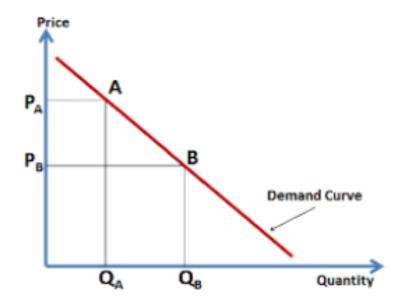
### Willingness to pay

In order to compute a demand curve for inclusion in the electric grid and / or other forms of access to electricity, each respondent is asked to indicate whether he or she would be willing to pay a given amount.

•	The amounts are chosen at random
	between 0 and full cost for each
	respondent.

 The demand curve is then determined at each hypothetical cost by counting the proportion of respondents willing to pay that amount or less.

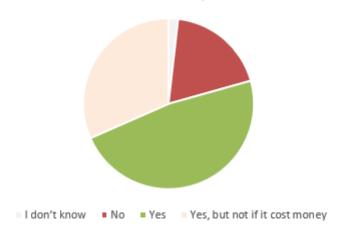
If offered to buy a new Solar Home System (three lights, TV and fan) financed in 24 monthly installments, would you be willinglable to pay \${rand4} per month for it over two years?	with mobile phone charging and 2 years warranty, would you be willing/able to pay AFN \$\frac{1}{2} \text{first on this lighting} \text{source?}
1172	No
2407	I don't know
2364	No
279	No
2207	No
<b>1</b> 844	No
2631	No
<b>*</b> 89	No
<b>1</b> 891	Yes
<b>"</b> 928	No
<b>5</b> 900	No
2195	No
<b>1</b> 732	No
<b>5</b> 1107	No.



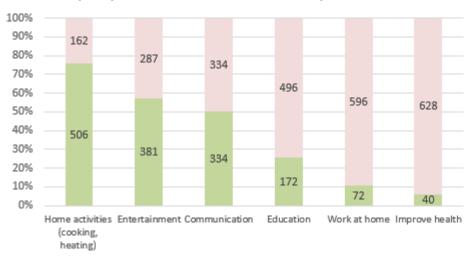
## **Aspirations**

- General eagerness to improve power situation
- Perceived gains especially in terms of home activities, entertainment and communication

Would you like your power to be better even if it cost money?



If your power were better, what would you use it for?



# **Next Steps: Longitudinal Energy Diaries**

The energy diary phase will consist of a monthly survey of households or enterprises / institutions which will be conducted by phone. It will focus more on:

- Energy usage
- Changes in energy access or availability
- Income

## **Next Steps: Longitudinal Energy Diaries**

#### **Qualitative: Seasonal Case Studies**

Based on the findings of the baseline survey, a tool will be developed to explore key issues around the impacts of energy usage on different types of households through the use of a Seasonal Case Study (once in every 3 months).

### It will mainly focus on:

- a) Gendered impacts of energy usage,
- b) Impacts of energy usage on education, income generation and health,
- c) Challenges and aspirations

Thank you!

**Questions?**