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the Council for At-Risk Academics

“The Effect of the Syrian Crisis on Electricity Supply and household life in North-West Syria- a university based study”

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Objectives

Methodology

Findings

Discussion

CONCLUSION

Objectives

To assess the need of electric energy by comparing the current situation with the reality before the crisis.

To identify the sources of electrical energy, access and quantity.



Methodology

The study based on three stockholders interviews

Household
survey

KIIs of
service
providers

KIIs of
Academies

Map of study
locations

Quantitative data
by Household
survey: **136** HHs

Qualitative data
by **8** KIIs.

Qualitative data by 2 KIIs of Academies

Key Findings

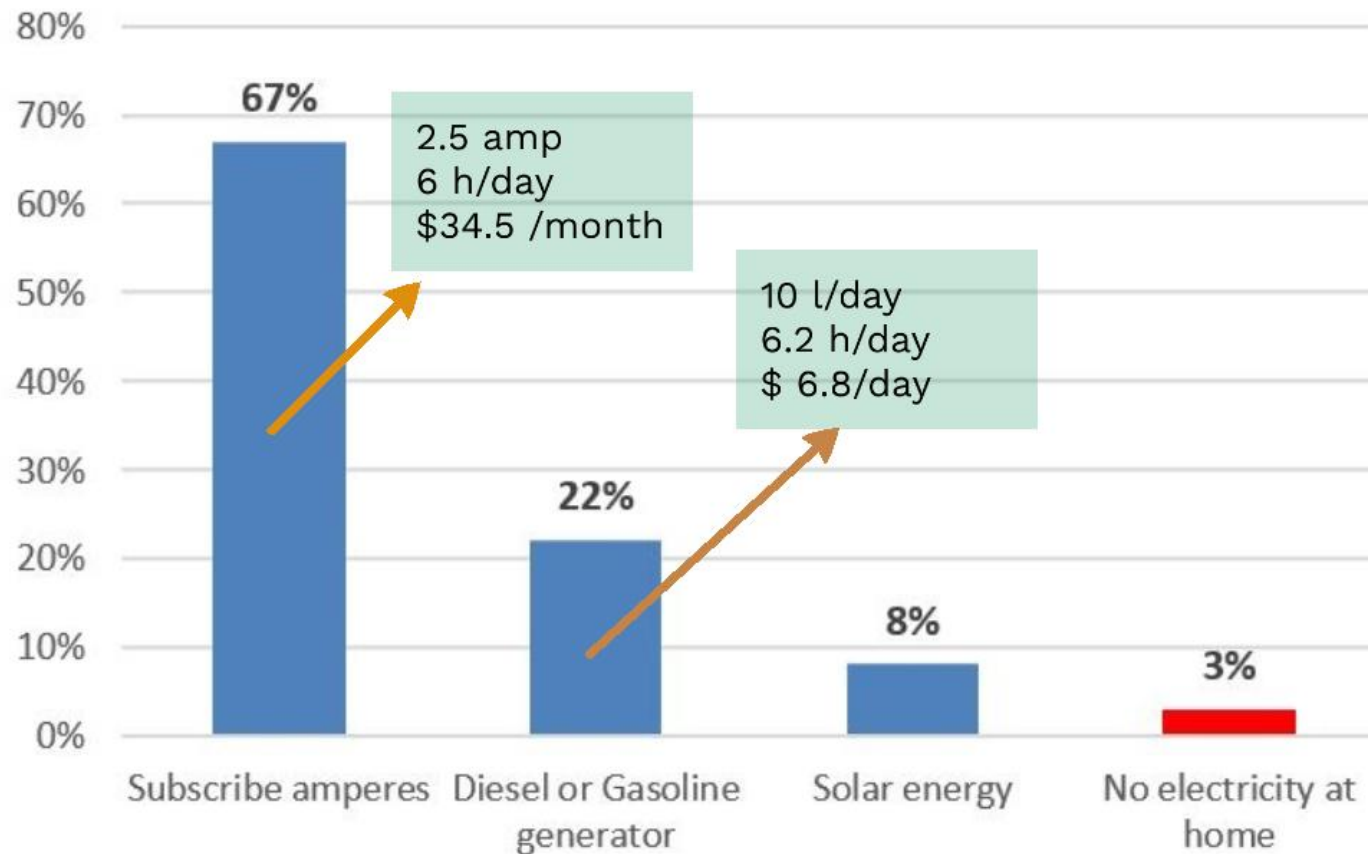
- No effective main electricity network in the target areas of study
- Average hours of electricity available for households: **6 h/day.**
- Households use very simple electrical equipment in their daily lives and limit hours of use.
- Basic family need for electricity is **10 amperes**, currently a family gets only **25% (2.5 amperes)** of the basic level.
- Use of solar energy **33.8%.**
- High prices of natural gas and diesel have left many families dependent on wood.

Main sources of electricity

Use of electrical equipment

Energy sources for cooking,
space heating
and hot water

The main source of electricity



Use of electrical equipment

Lamps



5.4 h/day



TV



4.9 h/day



Washing machine



4.3 h/week



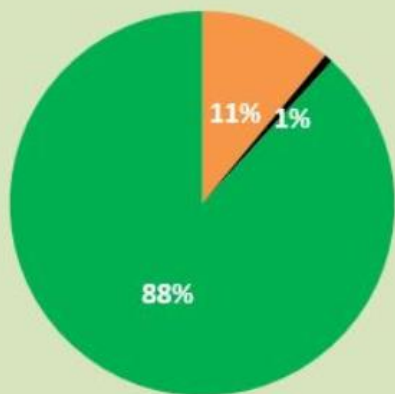
Refrigerator



3.7 h/day

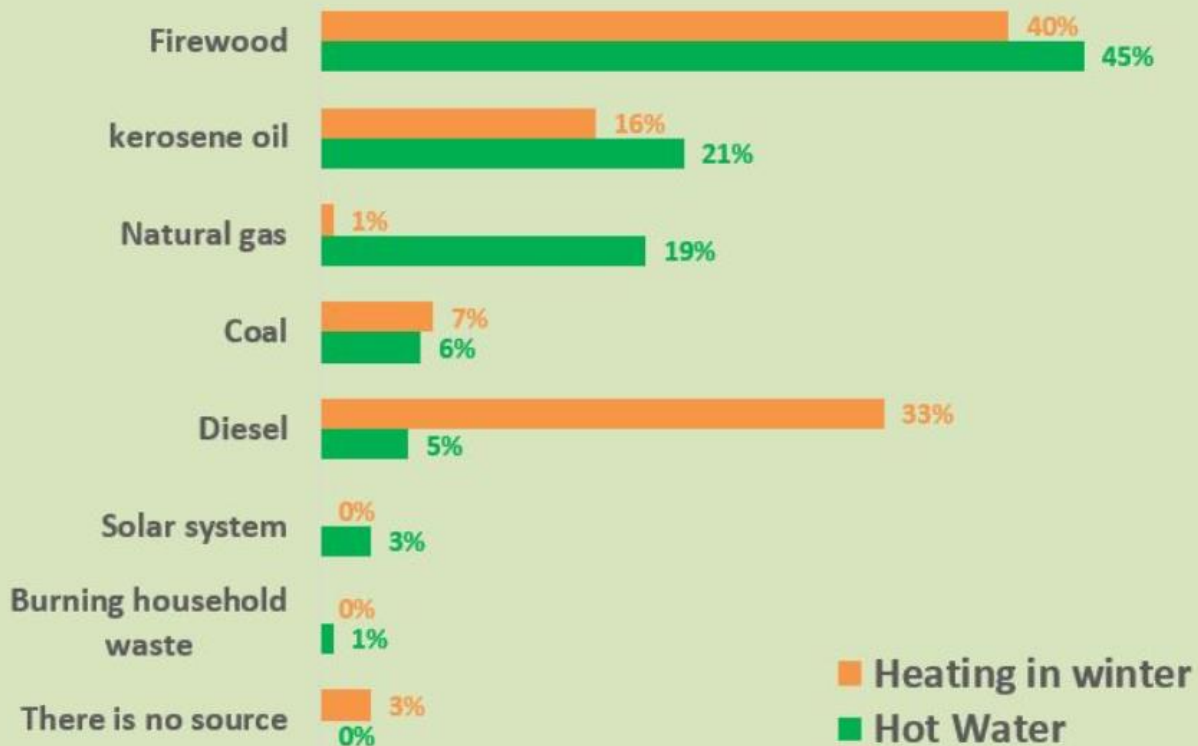


Energy sources for cooking



- Firewood
- kerosene oil
- Natural gas

Energy sources for space heating and hot water



- Heating in winter
- Hot Water

Discussion

The electricity
before and
during the crisis

The electricity
before and
during the crisis

Comparison of monthly income and expenses on electricity before and after the crisis

Average household income			
At the time of research		before the crisis	
64,375 SYP	129 USD*	46,048 SYP	1,023 USD**
Average availability of electricity			
At the time of research		before the crisis	
6.03 hours/day		23 hours/day	
Average household electricity expenditure			
At the time of research		before the crisis	
9,984 SYP	19.97 USD*	494 SYP	10.98 USD**
Ratio of electricity cost to household income			
15.5%		1.1%	

* 1 USD ≈ 500 SYP at the time of research

**1 USD ≈ 45 SYP before the crisis

- A large discrepancy between number of hours of electricity per day available before the crisis (**18 to 24** hours) and currently (**2 to 10**).
- References from comparable regions show an amount of household consumption of electricity (**72- 196 kWh/day**). While in Syria during the crisis is (**3.1 kWh/day**).
- Energy in the targeted areas is now dependent on the private sector or family initiative while previously supplied through the government.
- Solar energy is an alternative solution.



CONCLUSION

- During the war in Syria, the infrastructure of public utility services, electric power stations, transmission stations and distribution networks has been destroyed or stolen. Syrian people stayed without electricity services over long periods of time.
- the academic contribution to knowledge production about electric energy has been lost.
- Using the indicators obtained from the statistical study in humanitarian and social studies to benefit understanding of reality after the crisis.
- Urging NGOs and academics to increase people's awareness about the importance of using solar energy systems.

Thank you