

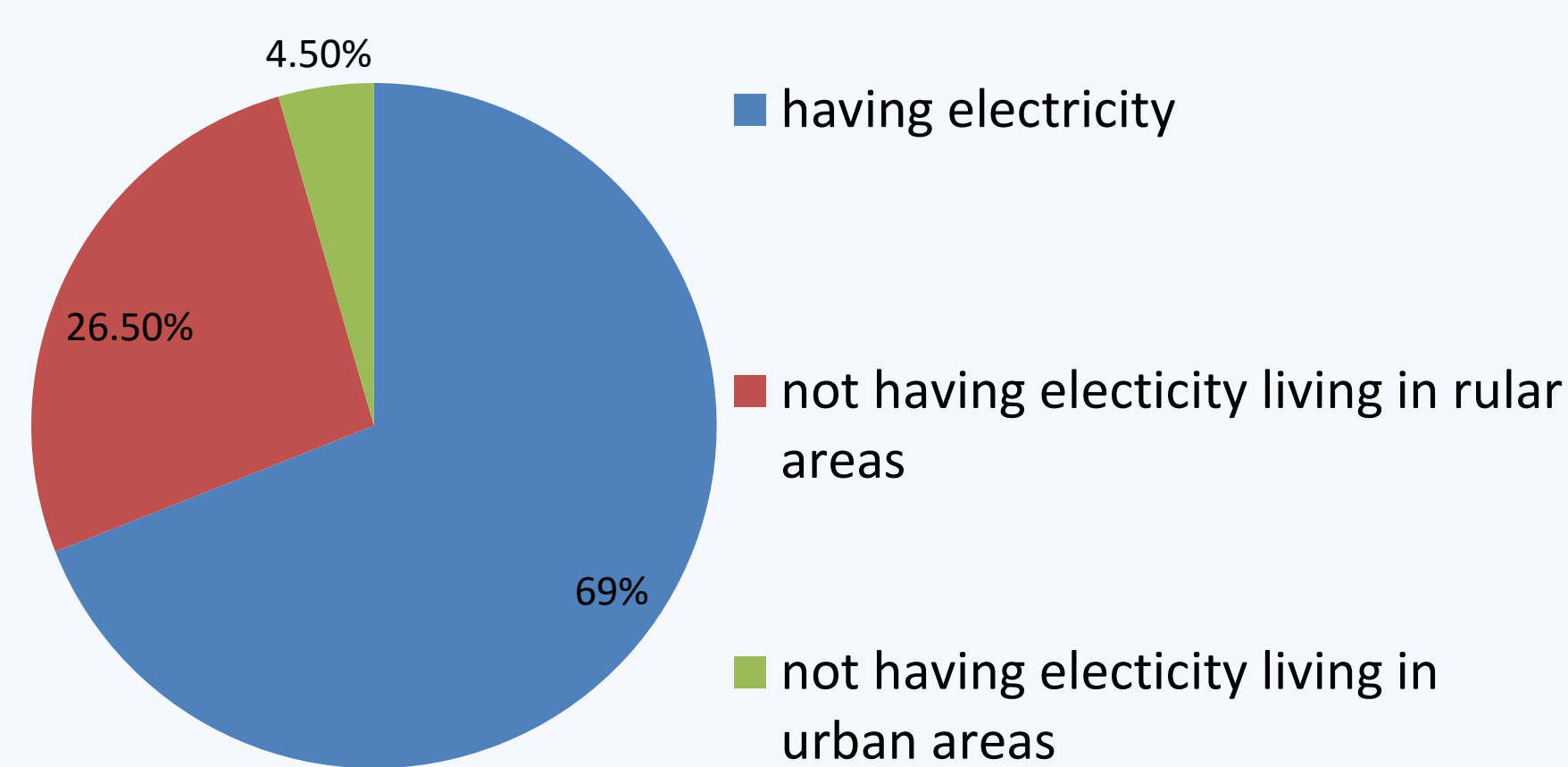
When Ideas Flow, Villages Grow

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Introduction

Pakistan is the 7th country of the world with the largest population without access to electricity, 2010. The International Energy Agency(IEA) estimates that 31% population of the Pakistan haven't access to electricity. 85% of those live in rural areas. Every third person in Pakistan has lacked access to electricity. Electricity plays an important role in our daily life. Imagine you wake up this morning and had no electricity. What difference it will make to your daily routine? You will be late to office/school because you have to iron your clothes but you can't, you have to take tea but electric cattle needs electricity, etc. all of the things in our daily life has direct or indirect link with electricity. WAPDA is the only source of electricity for villages(mostly in Gilgit). Gilgit is a mountainous area, strong winds blow there and it is the source of electricity which is utilized by people of Gilgit by building windmills. Wind power is one of the renewable energy. Renewable energy includes hydro, solar power and bio-fuels etc. The most bad thing for the villagers is that, their education is suffered which is an obstacle for their development.



Off-grid System as an Alternate Source of Generating Electricity

Off-grid systems are those appliances which generate electricity independent of any other public supply.



Hydro turbine

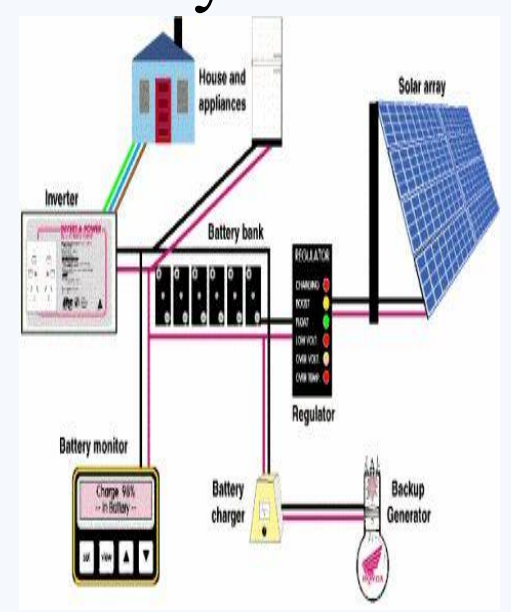


Wind turbine



Solar Panel

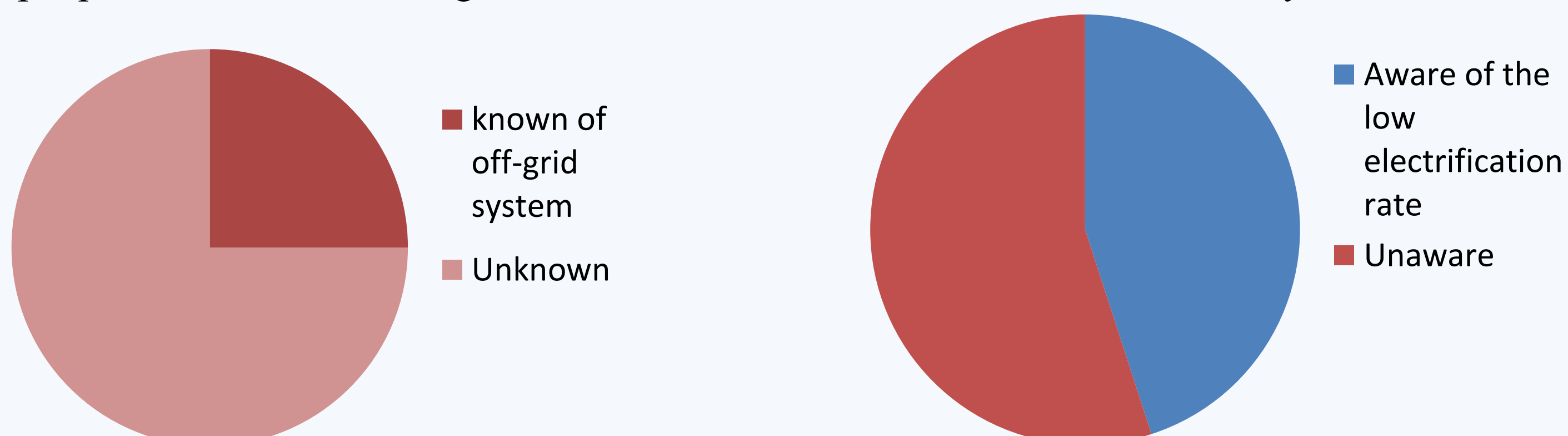
56 million people of Pakistan are un-electrified in 21st century despite of availability of modern gadgets for generation of electricity in markets. Most of the villages in Pakistan are located in highly remote areas therefore, off-grid system is an alternative for generation of electricity there besides governmental supply. People suffer from 16-18 hours of where public electric supply is accessible. Usage of off-grid system can ensure undisturbed energy supply. Getting an off-grid system is a good way to counter slow electrification rates in Pakistan. It is cheaper therefore people of remote areas can easily access it through forming community.



A local village in Pakistan named as Narian khorian has installed 100 solar panels by the help of a local firm. Today, all houses in the village have sufficient energy to run an electrical fan and two light bulbs. An average solar panel lasts almost 25 years and has no maintenance costs associated with it. There is no downtime or risk of failures that may cause large-scale evacuations to life or property. This is the solution that Pakistan has been looking for: a change that is driven by the people on fundamental grass root level.

Data Collection

After conducting a survey in my village I found a majority of people who were unaware of the off-grid system and low electrification rate. They said that, this word sounds totally new for them. Somehow few people have a bit knowledge about it but were unable to describe how this system works actually.



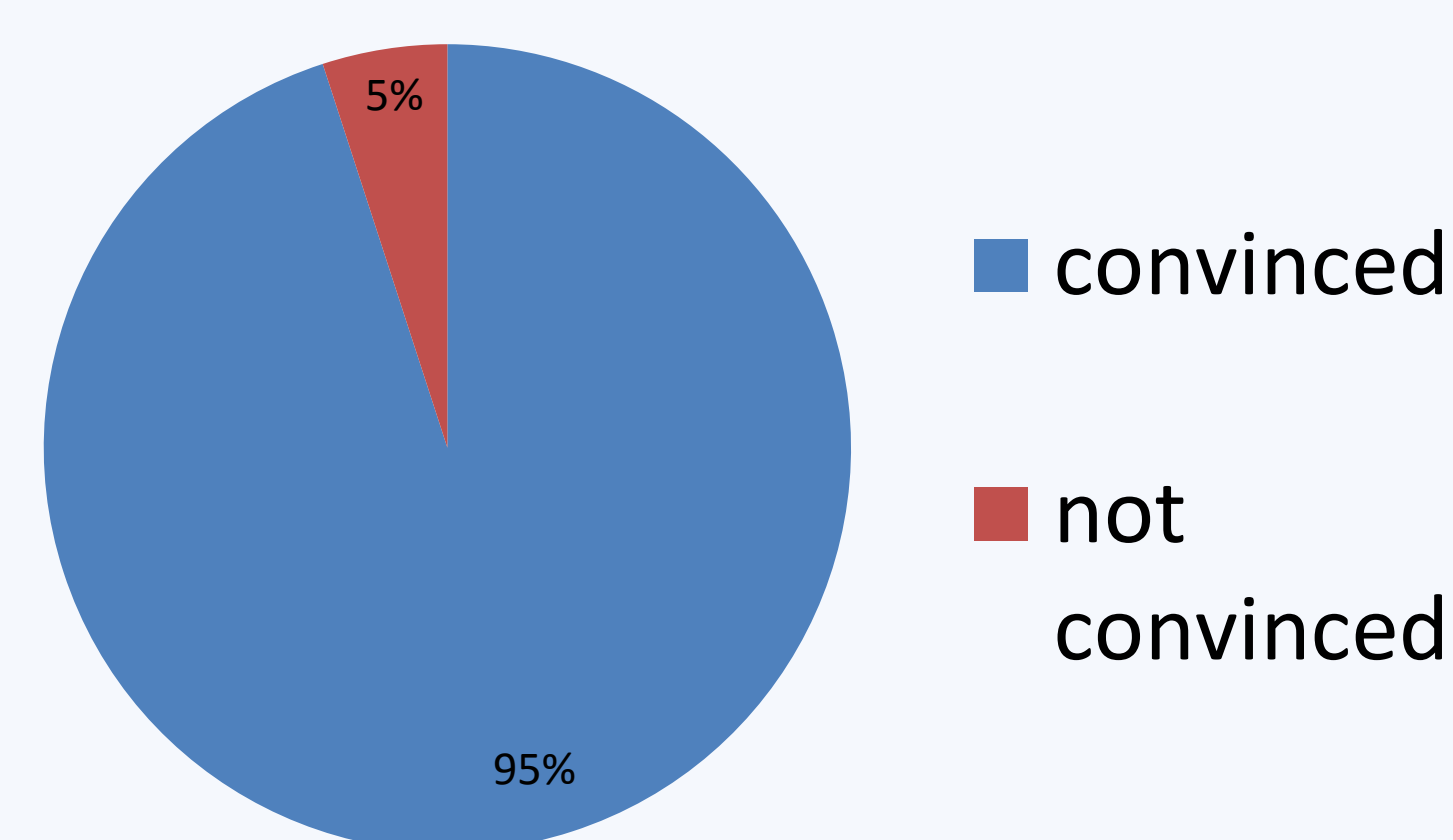
I interviewed almost 25 participants among them 20 were students and 5 were neighbors. My neighbors had the same perception about the system. They told me that, they don't know anything about it. 9 of the student also showed the unawareness about the system. I got satisfactory answer from 10 students they defined off-grid system and shared few working principles of windmills and hydroelectric power. One of the students was not only clear about the system but he also explained the working principles of each off grid system.

Creating Awareness

The villagers of Pakistan are habitual to live in the light of candles. They have opportunities to develop but the people are really banal that they don't even think about their children's future. We should have to motivate them. I will do the following things :

- I will make a group of those people who have good motivational skills. What will they do?
 - i. Motivate people by giving different types of example like how different parts of the world developed through off-grid system.
 - ii. They will demonstrate the importance of off-grid system.
 - iii. Group will make people understand that off-grid system doesn't need money it just need only labor.
- I will take help from the religious scholars and leaders of my area because people will be easily convinced by them. I will strive to make them understand first the concept of off-grid system ,when they will understand it and apply then it would be easier for us to ask the other people to utilize off grid system.
- Poster is one of the best way to create awareness about off-grid system among people but if people don't know about off-grid system how they will form off-grid system? I will conduct a youth camp where I will make the youth understand the concept of off-grid system and how to form off-grid system through water. When they will understand this they will apply at their homes and will create awareness as well.

Impact



I succeeded to convince 95% people from my data and they promised me that they will try to apply the off-grid system in their homes. 5% people really opposed me. Well, I don't know the exact reason behind this opposition, might be I had less motivational power to convince them. I faced many barriers while doing this task. Many people discouraged me that, I can't do this but many of optimist really encouraged me as well

To be honest the topic "off-grid" system was new for me as well. I heard this word first time. I researched on this system and learned many things about it so this was new for me. I learned that, how to generate off-grid system electricity, how much off-grid system can provide electricity ,etc.

Reflection

In present we are unable to meet the demands of electric energy. If the conditions remain same then I don't think our future will be secure. But the condition will be changed if our government will take serious steps to improve and develop off-grid system then we can diminish the electric energy crisis. Government should focus on electricity generation through solar cells because solar energy is not limited and is available in all seasons and everywhere.

Pakistan will grow
When villages of Pakistan will grow.

When villages will grow
Ideas will start to glow