

## **Renewable Energy Solutions by Non-Governmental Organizations (NGOs): The case of Pakistan**

Zain Ul Abdin

Pakistan is facing a huge shortfall in its energy sector. According to the Youth Parliament Pakistan, a power outage of 18 hours a day and gas outage of 2 days per week has been observed. Less increase in the supply of electricity than the increase in demand is worsening the situation even more (Hammad, 2012). Efforts at both Governmental and Non-Governmental Organizations have been made to tackle the problem. For the solution of such devastating problem, different institutions and organizations have proposed various strategies. One strategy out of many is to rely on Renewable energy to meet the reckless increase in demand for energy consumption. The focus of this discussion is to highlight the Renewable energy solutions provided by NGOS.

However, large numbers of NGO are working on different projects in different sectors, surprisingly, only a few of them are currently working in Renewable energy sector. RESEARCH, Energy Foundation Pakistan, The Rural Support Programme Network (RSPN), Renewable and Alternative Energy Association of Pakistan (REAP) are the NGOS focused. These NGOS were selected on the basis of their efforts in analyzing, proposing and for starting projects at various locations to solve the problem of the excessive demand for energy through renewable energy.

According to the strategic plan of RESEARCH, one goal of significance importance out of many is to convince Government of Pakistan to facilitate and approve Renewable energy sector of Pakistan as an independent growing industry. Management of Renewable Energy projects and Energy Conservation program are included in Research's Technical Support Program (RESEARCH, 2011).

A project was carried out by the funding of German Embassy in Pakistan and executed by RESEARCH's team on 27<sup>th</sup> July 2011. RESEARCH's engineers installed the solar water pump in the village of Lathori, located in Gujrat district and Punjab province. Another local level project of RESEARCH is to provide the people of Mouza Soya Faragh, located in the Union Council of Tuman Qaisrani in the district of DG Khan, with the supply of fresh drinking water. This area has only one well, used as a source of drinking water not only by the habitants but also by the animals. Furthermore, this well is located 1.5 km away from Basti Soya Faragh which makes it extremely tough to fetch the water on the daily basis as it requires not only covering a long distance back and forth but also a hardship of carrying the fetched water through all the way back. This confirms the need to develop a supply system through which not only the supply of fresh water can be ensured but also the guarantee of easy excess to the supply can be provided. RESEARCH has identified that in order to make the supply of clean and fresh drinking water possible that there is a need for two water tanks of 1000 Gallons, each. As the area is underdeveloped the shortage of power is even more in it. For this purpose solar submersible pump will play an important role in improving the living standard of the local society without any substantial need for relying on electricity (Project, 2013).

Goals of this Ngo look as a solution in themselves but their ongoing projects depict different kind of story. Although the fact that installations of solar water pumps will help solve the problem of getting access to water supply by decreasing the dependency on electricity but these projects are that small scale local level projects. As the energy crisis of Pakistan is large scale these issues are not enough to help solve it.

Energy Foundation of Pakistan is planning to start many projects for the development of Renewable energy sector of Pakistan. They have proposed solutions to meet the shortfall of energy by claiming to start different projects in the upcoming period of time. These projects involve Promotion of Green Energy, Development of Renewable Energies, Project Survey of Energy, Project GETC, Project Save Energy, Project Bio Gas, Biogas Community Latrines, Solar Electricity and last but not least Wood Gas Stoves (EFP-Projects, 2013). The biggest problem with their proposed solution is that these are only on paper, waiting for the source of funding, but the solution to Energy crises needs more of practical implementation rather than just planning. Another problem that cannot be ignored is the lack of proper provided details in their plans about how they are going to implement these projects making, even, their objectivity questionable.

The Rural Support Programmes Network has been working on the project called Pakistan Domestic Bio Gas Programme, also known as PDBP, to provide the solution for the energy shortfall through renewable energy. This project is based on the provision of energy through Bio Gas. The project was funded by Netherland Development Organization (SVN), for the first corresponding year and then by the Embassy of the Kingdom of Netherlands to support the construction of 14,000, household, biogas plants in central Punjab of Pakistan. RSPN has been successful in constructing 70 biogas plants in the first year of their PDBP project. They have been successful in

setting their offices in four districts of Punjab. They claim to have achieved a reduction in health problems and also developing databases (PDBP, 2013).

In spite of the fact that RSPN still have a lot more work to accomplish in order to build 14000 biogas plants all over the Punjab district, this Ngo is the only one with a large scale project of some kind. It makes it good that this Ngo is planning to cover the whole Punjab but the problem of energy crises is not only limited to Punjab. Energy crisis is in other provinces cannot be ignored.

REAP is a non-profit and non-political organization that has already launched three faces of training sessions. Purpose of the sessions is to provide training for the participants in the Renewable energy sector of Solar Water Heater. Training sessions were carried out in three major cities, Karachi, Lahore and Islamabad (capital) of Pakistan. Training was given by two German experts working as Master Trainers and two local Master trainers from Islamabad (REAP, 2013). The training session in Karachi was carried out in October 2010. Although training sessions arranged by this Ngo may provide some sorts of indirect solutions in the near future, more direct solutions instead of indirect are needed.

Though Ngo's made efforts to somehow direct the issue of lack of energy facilities in Pakistan not a single project of significant importance has come to my knowledge so far. EFP may have planned to commence some good projects in the near future but, at my point of view, solution for the issue of the energy shortfall requires more than just planning. The RSPN's Pakistan Bio gas Development project was the biggest, most beneficial and successful project among all the above projects under discussion. It was the most successful for the reason of constructing 70 plants for, and planning to construct 14000 more, households. Its scope is big and extent of benefits were and are going to be high as it is conducted in the rural areas of central Punjab in not only a single district but in four districts.

Although NGO's are working to provide some sorts of solutions in Pakistan at local level, there is a need for solutions at broad (state) level. By the evidence provided in the preceding section it is worth mentioning in concluding that NGO's projects at local level may prove to be beneficial to solve the problem of small areas and villages such as Basti Soya Faragh but the issue of Energy crises requires a bigger solution overall solution. By taking the caliber of the issue addressed into consideration, small scale projects carried out under the supervision of NGOs are not enough. Hence it is concluded that there is a desperate need of complex projects through which new Renewable Energy productive plants can be started to meet increasing demand for energy, especially electricity, in Pakistan.

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