

DEMAND SIDE MANAGEMENT & RENEWABLE ENERGY IN INDIA: CAPACITY BUILDING OF CSO'S – DREC PROJECT

[This Consumer Survey was conducted to gauge the change in awareness level among consumers on issues pertaining to Demand Side Management & Renewable Energy and to identify whether the project had been able to induce any practice change among the relevant stakeholders]

I. ABOUT THE PROJECT

CUTS International with support from the Shakti Sustainable Energy Foundation, New Delhi has been implementing a project entitled 'A Diagnostic Study to Build the Capacity/Awareness among Civil Society Organisations (CSOs) to Demand for Demand Side Management & Renewable Energy in India – DREC'.

The overall objective of the project is to build long-term capacity/awareness among consumer groups to be able to demand and help mainstream demand side management (DSM) and renewable energy (RE) initiatives in two states in India – West Bengal and Gujarat. The aim of the project is also to help understand, document and communicate the specific needs of the concerned stakeholders to the relevant policymakers on issues pertaining to RE/DSM in the mentioned states, so that consumer's perspective is taken into consideration in the policy-decision making process.

II. METHODOLOGY

2.1 Stakeholder Category

Consumer survey covered six broad categories of stakeholders namely – households, farmers, industries, commercial units, government institutions and CSOs. Majority of respondents belonged to the category of households and CSOs. An additional activity, i.e. focused group discussions was conducted in respective territories with the purpose to understand survey findings that cannot be explained statistically and to gather views/opinions on EE/RE by stakeholders from similar backgrounds or experience.

2.2 Sample Size

The baseline consumer survey was conducted with a sample size of 500 consumers across six stakeholder

groups. Whereas, the final consumer survey was organised covering a sample base of 350 respondents. Efforts have been made to cover 50 percent of respondents covered in the baseline consumer survey or consumer interface meetings in the final consumer survey for the purpose of comparison to evaluate the impact of the project.

2.3 Survey Territories

The surveys were conducted in four districts of Gujarat, namely Kuchchh, Patan, Mehsana & Ahmedabad. Surveys were conducted in English and in the local language, Gujarati. Questionnaires were prepared in both the languages.

III. BACKGROUND

In the initial phase of the project CUTS along with VIKSAT had undertaken a baseline consumer survey in the selected territories of Gujarat, i.e. Kuchch, Patan, Mehsana & Ahmedabad. A total of 500 consumers across different stakeholder categories were covered in the baseline consumer survey. Survey results revealed that there is a significant gap in the awareness on issues pertaining to clean energy and energy efficient practices. It also pointed out the lack of awareness among consumers and CSOs regarding regulatory process in the electricity sector.

The survey results were used to determine the need for awareness generation and relevant issues concerning different consumer categories including CSOs. After identifying the potential gaps, a five-day training workshop was organised in Ahmedabad for partner CSOs and few other local CSOs, on issues pertaining to DSM, RE, energy efficiency and overall regulatory structure of the electricity sector. After the territorial training, each partner CSO organised stakeholder specific awareness generation workshops (termed as consumer interface meetings) in

their respective territories. The consumer interface meetings also aimed at inducing practice change among different categories of stakeholders to and facilitate greater uptake of clean energy and energy saving.

Further, to gauge the change in the perspective and awareness level of consumers after intensive capacity building workshops and focused group discussions in the project territories and to access the impact of the project, a final consumer survey was conducted covering 350 respondents and efforts were made to cover the same group of stakeholders covered during the baseline consumer survey and/or the consumer interface meetings, to the extent possible.

A comparative analysis of the results of the baseline and final consumer survey is herewith presented to showcase the areas where noticeable change has been observed. All the indicators discussed here onwards are pointing towards the fact that while the project has been successful in increasing the level of awareness amongst the programme participants, large scale change in practice is yet to be observed. It is obvious that change in behaviour and attitude is a pre-requisite for bringing about a change in existing practices, which will happen gradually, with specific planning and monitoring of activities focusing around behaviour change and communication.

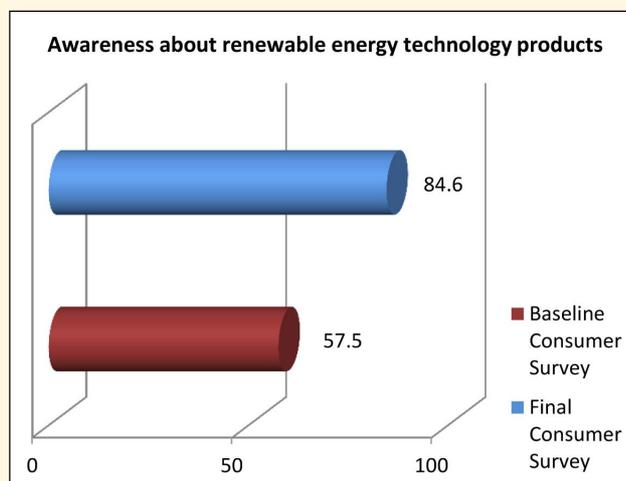
A brief discussion on the indicators of change as noted by comparing the survey results of Baseline and Final Consumer Survey is presented herewith.

HOUSEHOLDS

1) Awareness about the Star Rating and Labelling

a. Increase in awareness about renewable energy technology run household products

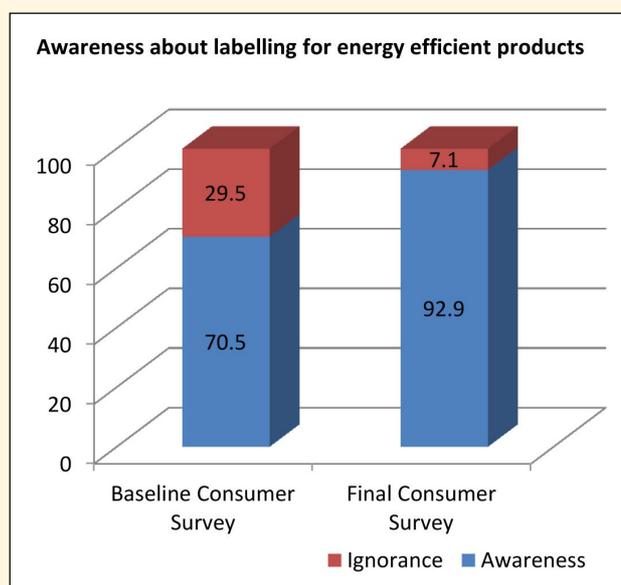
One of the immediate outcomes of the project activities was the rise in awareness regarding household products operated by RE technology. While during the baseline consumer survey, the level of awareness among respondents was 57.5 percent; whereas, during the final consumer survey, the proportion of respondents rose to 84.6 percent.



It is assumed, that an increase in awareness will consequently lead to increase in demand for products. This is a clear indicator that as and when the demand for such products is generated, the market should be in place to understand the specific needs of the household consumers and steps should be taken to overcome the barriers in adoption and sustainable use of the same.

b. Increase in the level of awareness about the labeling in energy efficient appliances

One of the positive outcomes of conducting the interim project activities was marked rise in the level of awareness amongst consumers about the labelling in energy efficient products.

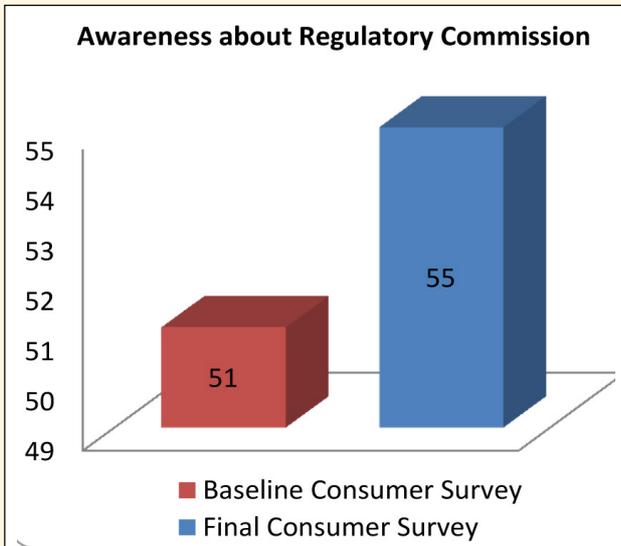


Now only a small section of respondents (7.1 percent) is completely unaware of star rating and labelling. As compared to the baseline survey results, more than a fourth of respondents (29.5 percent) were completely unaware of such labelling indicating energy efficiency.

However, in the final consumer survey, only 58.6 percent respondents were able to identify Bureau of Energy Efficiency labelling as a sign of energy efficiency. A section of respondents (36.6 percent) stated that they associate ISI/ISO marking with energy efficient product. This shows that while there is an overall awareness regarding the issue, appropriate transfer of knowledge will take some more time.

c. Awareness about Regulatory Commission

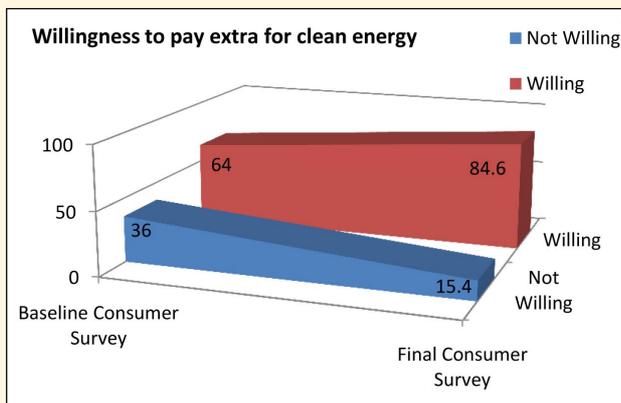
A marginal but worthy progress was seen in the awareness level regarding the regulatory agency in the state. While 51 percent respondents in baseline consumer survey were already aware of the presence of regulatory body in the state; in the final consumer survey with an increase of four percent, i.e. 55 percent of respondents were able to identify Gujarat Electricity Regulatory Commission as the agency responsible for the implementation of regulation in the state.



2) Willingness to Pay Extra for Clean Energy

The baseline survey revealed that 64 percent of the total respondents were ready to pay extra amount for the expensive energy considering the fact that it would help reduce the effects of climate change and pollution.

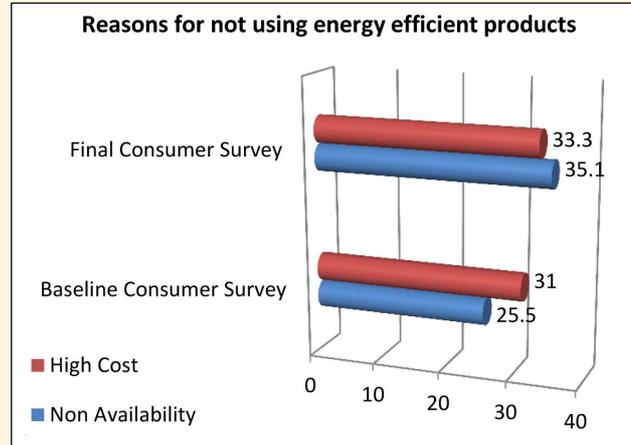
The final consumer survey brought forth that a much larger proportion (84.6 percent) of respondents expressed readiness to pay extra for expensive energy to ensure long term benefits. Here, it important to understand that consumers are willing to pay more, only within the range of 1 to 5 percent extra and not more. Secondly, by paying more, consumers expect good quality of services and products. There is a need to consider the fact that currently, there are no such mechanisms in place to ensure the standardisation of the renewable energy technology run products. Credibility of services and products based on RE technology is an issue that needs to be addressed to ensure sustainability of use.



3) Non Use of Energy Efficient Products

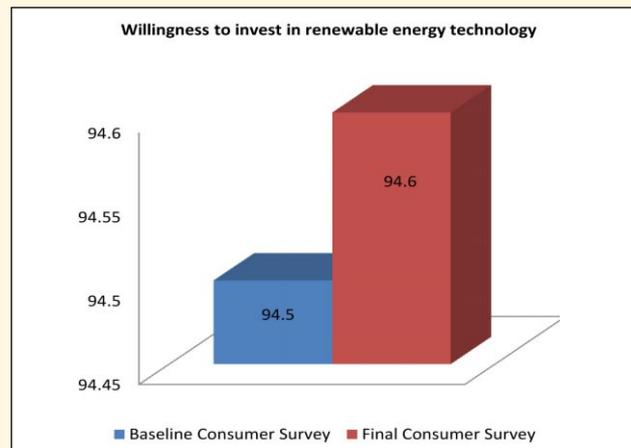
High cost and non-availability of products were cited as major reasons for non-use of energy efficient products. Thus, innovations in technology leading to cost reduction, increase in the range of household products, increase in the scope of energy efficient products in rural settings, increase in credibility of the quality of the products, establishing mechanisms to ensure standardisation of

renewable energy technology-run products are some of the important strategies to overcome the chief barriers in use of energy efficient products in households.



4) Willingness to invest in renewable energy technology

It was encouraging to observe that people, after being aware of the long-term benefits of RE technology and the harmful effects of burning the fossil fuels, were willing to opt for renewable energy technology run appliances. This corroborates the observation made earlier, that the stage is set for implementing activities to promote RE technology and energy efficient products by devising strategies to overcome the barriers towards penetration of the same.



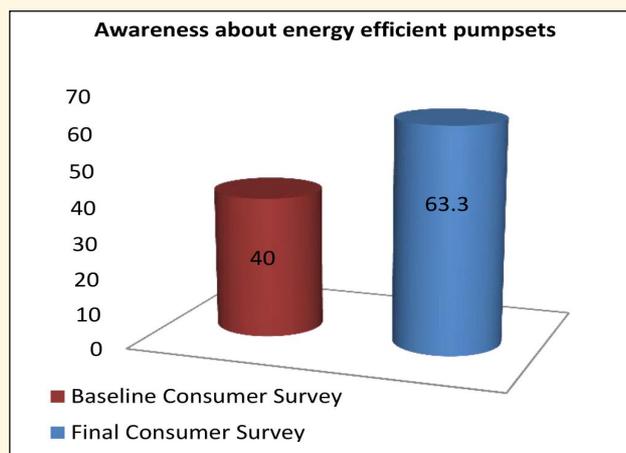
AGRICULTURE SECTOR

Awareness about Energy Efficient Pump sets

Energy efficient pump sets are available in market but farmers were not much aware of it. During the consumer interface meetings farmers were given information about energy efficient pump sets.

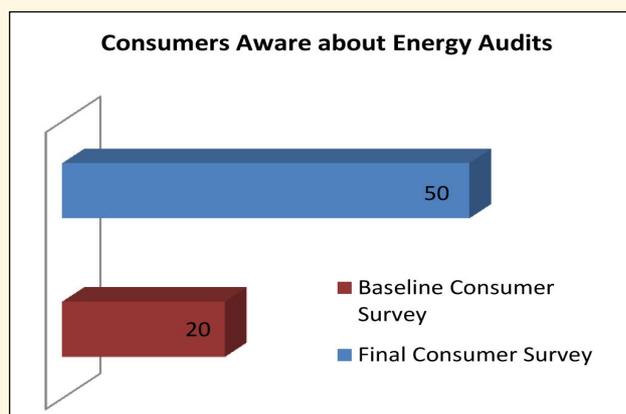
As seen in the figure here, the proportion of respondents aware of such pump sets have risen from 40 percent in the baseline consumer survey to 63.3 percent during the final consumer survey. Although, still no one from the surveyed farmers are using energy efficient pump sets or pump sets run on clean energy

A lion's share of energy is consumed by this sector. There is a substantial scope of energy saving in this sector but discussed in the section on findings of the final consumer survey, there are several barriers in the penetration of the energy efficient products. Specific need-based strategies, especially customised financial services, incentives and adequate pre and post sales information and doorstep services are a pre-requisite for popularising energy efficient products in the agriculture sector.



COMMERCIAL/INDUSTRIAL/GOVERNMENT

Several industries adopted energy conservation practices after the capacity building workshops and focused group discussions conducted by CUTS & VIKSAT. Earlier only 26 percent respondents admitted that they have taken some measures or adopted energy saving practices, whereas in



the final consumer survey this figure has risen to 73.3 percent – a major practice change noticed in this sector. Most of industries not practicing energy conservation reported that high product cost, non-availability, poor after sale service as the common barrier.

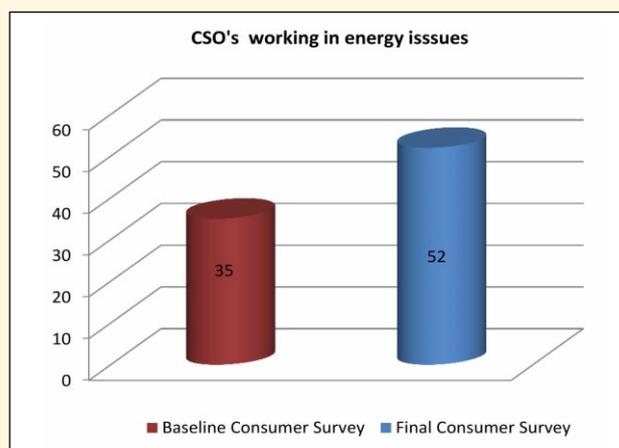
Energy audits are considered to be an important tool for energy conservation. However, despite its growing importance, the awareness about need and benefits of

energy audits were quite low. Earlier, only 20 percent of industrial consumers were aware of it, whereas in the final consumer survey, 50 percent of industrial consumers were found to be aware of energy audits. Although, bringing it into practice is still a challenging issue.

CIVIL SOCIETY ORGANISATIONS (CSOs)

As seen in the baseline consumer survey, only 15.7 percent were aware of issues while 17.6 percent had absolutely no idea about the subject. But after participation in the state level capacity building workshops and consumer interface meetings, the level of awareness has increased. There is more clarity on the role of the CSOs. 13 percent respondents have shared that CSOs have a vital role to play in the process of tariff determination, 15 percent felt that they can provide appropriate information to consumers while 33 percent felt that they can act as the bridge between grassroots-level consumers and the echelon of decision/policy makers and represent consumer issues in larger forums. As a result of the sensitisation through the project activities, CSOs working in the area of energy has grown to 41 percent as compared to earlier 35 percent.

Similarly, 74 percent CSOs has shown interest in working on energy issues in the baseline consumer survey. And 52 percent has taken up work related to energy issues by the time of final consumer survey.



CONCLUSION

The outcome of the project activities has been quite encouraging. There is a definite impact on the level of awareness of the people across the stakeholder groups regarding the energy efficient products and the RE technology appliances. The project has been successful in bringing the less-talked issue of sustainable energy to the forefront and has definitely acted as a stepping stone for the CSOs to engage in and mainstream issues that have a great bearing on macro issues, such as climate change and global warming. A change in the behaviour of stakeholders and a shift in their roles are inevitable.

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