

RURAL ELECTRIFICATION: ITS EFFECTS ON PEOPLE'S SOCIOECONOMIC LIFE AND ASPIRATIONS*

Venancio B. Ardales

Background and Rationale of the Study

Just like any developing country, the Philippines has acknowledged the importance of electricity in its over-all development. Its leaders believe that power is necessary not only as a vital service to Filipino households but also as an indispensable catalyst for social, economic and individual reforms. For this and many other reasons, rural electrification became a priority in the infrastructure programs of the government.

Rural electrification in the country started in 1962. It was designed primarily to bring the benefits of electricity to the rural masses by providing the needed power for income-generating industries and irrigation systems for increased agricultural production. The program now enjoys the financial and technical assistance of the United States

for International Development (USAID) and the National Rural Electric Cooperative Association (NRECA) of the United States.

The province of Iloilo is one beneficiary of the rural electrification program of the government. The Iloilo Electric Cooperative, Inc. I (ILECO I) was legally established on June 21, 1971 with a general objective to help hasten the development of the province and of the region. Its operations officially started on November 26, 1974. As of 1978, the ILECO I records show an area coverage of 15 municipalities which have a total population of 46,130 persons. Two other ILECO plants, the ILECO II & III, service the other towns of the province.

After seventeen years of operations, it seems fitting to assess the results of the program so far. Thus this evaluation study which would tell whether the large amount of

*An executive summary of a dissertation done for a Doctor of Philosophy in Sociology degree at Xavier University. The investigator gratefully acknowledges the invaluable advice of his mentor Dr. Francis C. Madigan, S.J. and the financial support of the Ford Foundation through the Panay Island Consortium for Research and Development (PICRAD), the Philippine Social Science Council Graduate Training Assistantship Program, and of the CPU Faculty Development Program.

money, the time, talent and efforts expended on this costly project were well spent, whether the project produced a proportionate desired effect, and whether the project proceeds and is implemented accordingly as planned.

Theoretical Framework and Objectives

This study was based on the theory that, given the project area's socio-economic, political structure, environmental and other exogenous factors, rural electrification will interact with other developmental outputs like agricultural, industrial, and social development programs. The interaction will result in social, economic as well as demographic changes.

The changes that are generated by the interaction of the rural electrification with other factors are observable at two levels; namely, the community and the household.

On the above model, this investigation was designed to meet the following general objectives:

1. To find out whether the socio-economic situations and levels of aspiration of people in energized communities like Miagao are better or higher than those of people in non-energized areas like Banate.
2. To know whether users of electricity have higher socio-economic status and levels of

aspiration than the non-users who live within the service area of the electrification project.

3. To determine whether energized communities are more socially and economically progressive than the non-energized communities.

Procedures

The exploratory comparative design was used in this study. This called for the purposive selection of Banate, a non-energized town and Miagao, a municipality which had had electrification for about four years. These sample towns were comparable in terms of geographical location and in terms of the primary and secondary occupations of their inhabitants. The study design also called for the purposive selection of three barangays in each town. Their selection was based on accessibility in terms of proximity of the three barangays in each municipality to each other or to the poblacion; cooperativeness of the barangay captain, and long exposure to electricity in the case of energized sample barangays.

Two groups of respondents cooperated in this study. These were the 415 heads of sample households and the 26 opinion leaders of the communities under study. The former were chosen at random while the latter were purposively selected. Sample house-

holds in Miagao were categorized into Users and Non-users of electricity. The latter group was further classified as Non-adoptors and In-accessibles. The samples from both towns were also classified according to their area of residence; namely, poblacion and barangay.

Two sets of interview schedules were used. A structured schedule was used for the household heads. An unstructured and less standardized type was employed for the opinion leaders who represented different institutions and communities.

Data analyses include the following:

1. Comparison of the economic situations and aspiration levels of the respondents and their households by municipality, by area of residence, that is, between poblacions and between sample barangays, and by use or non-use of electricity;
2. comparison of the socio-economic conditions and levels of aspiration of the respondents and their households in Miagao sample areas by area of residence; and
3. comparison of the social and economic conditions of the energized sample communities of Miagao and the non-energized sample communities of Banate.

Descriptive statistics were used for the profile of the respondents and their households and for comparison purposes. To find out how one group differs from another in aspects on which they were compared, the significance of the difference between their means, between their medians, or between their proportions was computed using z-tests for uncorrelated samples at .05 level of significance. To determine change over time in the perception of the respondent about the adequacy of their incomes, a two-tailed t-test for correlated samples was employed using a .05 level of significance.

Significant Findings

Results of the study reveal the following significant findings:

1. Sample households in energized Miagao poblacion were far more progressive than those in the non-energized poblacion of Banate. They were found to have higher incomes, higher levels of living, greater social participation, higher level of education, higher levels of aspiration than their Banate counterparts. However, their perceptions of their future incomes and life situations were not any better than those in Banate poblacion.

Over half of the sample in Miagao poblacion associated the availability of electricity

city with the improvements in their life situations.

2. Sample households in the energized Miagao barangays were better than their Banate counterparts only in terms of level of living and educational attainment of the household head. Their levels of aspiration were not any higher than those of Banate samples. They were found to be more pessimistic about their future incomes than the Banate samples. Their perceptions of their future life situations were not any better than those of their Banate counterparts.

Only a little over ten per cent of the respondents in Miagao sampled villages associated electrification with the improvements in their living conditions.

- 3 By municipality, the samples in Miagao were more progressive than those in Banate only in terms of level of living, level of social participation, and education of the household head. Their levels of aspiration were higher but they were more pessimistic about their future incomes and life situations than those in Banate.

Of the total Miagao sample, only twenty per cent associated electrification with the improvements in their living conditions.

4. Users of electricity proved to be far more progressive than the Non-users. They were found to have greater household and per capita incomes, higher levels of living, greater social participation, higher educational attainment, and higher levels of aspiration than the Non-users. Moreover, they were more optimistic about their future household incomes and life situations than the Non-users.

Thirty one per cent of the total Users and only five per cent of the total Non-users whose life situations have improved associated electrification with the change in their living conditions.

5. Electricity Users in Miagao poblacion were found to have higher incomes, higher levels of living, greater social participation, and higher levels of aspiration than their counterparts in the sample villages.

Fifty-five per cent of the Users in the poblacion and only eleven per cent of those in sample villages associated electrification with the improvements in their life situations. Electricity, they revealed, provides them with relatively cheap motive power for their household utilities. It provides energy for some enterprises in their communi-

ties, particularly in the poblacion, which raised the level of employment in the area and which in turn increased the incomes of the people.

6. The total sample in Miagao was exposed to electricity for a little over two years on the average; 2.7 years for the poblacion sample but only 1.7 years for those in the villages. The income of the household and the education of the household head were strongly associated with the adoption of electricity. Electricity was perceived by all respondents to be important in providing cheap motive energy to electrical appliances/equipments and businesses, and in making possible the night time activities, economic and otherwise.

Poor economic condition is the major reason for the non-adoption of electricity. The majority of the non-adoptors expressed their desire for electricity connection in their houses.

More than half of the sample in non-energized Banate have plans to install electricity in their homes once it is made available to them.

7. All opinion leaders in sample areas of the towns claimed progress in the communities and institutions they represented. In the case of Miagao

institutions and communities that were considered, many of the changes were associated by the respondents with electrification. However, opinion leaders differed in their assessment of the socio-economic conditions of their people. Eighty per cent of the Miagao opinion leaders and only 36.4 per cent of those in Banate claimed improvements in the socio-economic life of the people in their respective communities.

The opinion leaders in Banate were all enthusiastic about the coming of electricity to their communities which they believe will contribute greatly to the development of their institutions and communities.

But many complained about the inconveniences of power failure, particularly in the barangays, which they said, together with the lack of capital and expertise, slow down the progress of their communities.

Recommendations

In the light of the nature and results of this study the following are suggested:

For Policy Makers

Results reveal that the poblacion sample benefited more from the electrification project than the barangay dwellers. Since the main

target of this development project are the rural poor, the majority of whom reside in the villages, the electric service system in these areas should be improved. Immediate attention should be given to the complaints of the respondents, particularly the Users of electricity about the frequent power failure and the inadequate power supply in the barangays.

Moreover, it was found that the economic factor is the major reason for the non-adoption of electricity.

The same reason and the lack of expertise were also the constraining factors which prevented many people from starting even a small-scale business or home industry. It is suggested, therefore, that a loan service system on easy terms and which does not require much paper work and red-tape, and a team of experts on, say, the operation or management of enterprises, be made available to the people. These and many others, interacting with electricity, will greatly enhance the living conditions of the rural folks, particularly the poor.

Results of the study point out that household Users of electricity and communities exposed to electrification have enjoyed benefits from the project, though still limited, considering the short period of their exposure to electricity. It is strongly suggested, therefore, that the electrification project be maintained and supported and, as much

as possible, be made available to the entire populace of the country.

For Research Methodology

The lack of baseline data forced the investigator to rely heavily on respondents' retrospections in assessing the changes that occurred since electrification. Thus, the evaluation of changes over time is rather weak. It is recommended, therefore, that baseline information be obtained in areas before their electrification. These would provide bases for the proper evaluation of the changes caused by electrification, alone or in interaction with other factors.

Moreover, a project like electrification has two observable effects — the immediate and those which require a longer period of time to be pervasive. It is suggested then that a prospective study over time be made on the impacts of rural electrification. A continuous monitoring approach will also be helpful in providing in-depth and contextual knowledge of the specific changes caused by electrification in interaction with other rural development projects and other community factors.

It is also suggested that a large-scale study which should include more respondents and more areas be made so as to have a better perspective of the effects of the electrification project.