Philippines “Metro Manila Depressed Area Electrification Project”

Report Date: March 1999
Field Survey: December 1998
Evaluator: Asia Pacific Research Center, Waseda University
Yasushi Kikuchi

Project Summary

Borrower: Republic of the Philippines
Executing Agency: National Electrification Administration
Exchange of Notes: December 1988
Date of Loan Agreement: June 1990
Final Disbursement Date: October 1999 (scheduled)
Loan Amount: ¥5,066 million
Loan Disbursed Amount: ¥4,812 million (as of end of March 1999)
Procurement Conditions: General Untied
Loan Conditions: Interest: 2.7%
                    Repayment Period: 30 years (10 years grace period)
Project Commencement Date: April 1991 (signing of agreement)
Project Completion Date: October 1999 (construction scheduled to be completed)

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1 This is a Third-Party Evaluation. JBIC prepared only the part before the “Third-Party Evaluation Report”. Strictly speaking, this project was on-going at the time of this evaluation. However, JBIC decided to conduct this evaluation because 1) total number of electrified households exceeded its original target, 2) 95% of the Loan amount had been disbursed and 3) social impact of this project which was the main focus of this evaluation could be analyzed at that time.
(1) Currency: Philippine Peso (P)

(2) Exchange Rate: (IFS yearly average market rate)

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<tbody>
<tr>
<td>P/US$</td>
<td>21.1</td>
<td>21.7</td>
<td>24.3</td>
<td>27.5</td>
<td>25.5</td>
<td>27.1</td>
<td>26.4</td>
<td>25.7</td>
<td>26.2</td>
<td>29.5</td>
<td>40.9</td>
</tr>
<tr>
<td>¥/US$</td>
<td>128.1</td>
<td>138.0</td>
<td>144.8</td>
<td>134.7</td>
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<td>94.1</td>
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<td>¥/P</td>
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<td>4.2</td>
<td>4.1</td>
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<td>CPI*</td>
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<td>164.0</td>
<td>177.8</td>
<td>186.7</td>
<td>206.2</td>
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</table>

*: CPI data of 1998 are figures up until the third quarter.

(3) Exchange Rate at the time of appraisal: Peso/US$ = P21
    ¥/US$ = ¥133
    ¥/P = ¥6.3

(4) Fiscal Year: January to December

(5) Abbreviations:
    DAEP: Depressed Area Electrification Project
    NEA: National Electrification Administration
    MERALCO: Manila Electric Company
    NEDA: National Economic Development Authority
Project Location
1. Project Summary and JBIC Portion

The objective of this project is to provide a safe, cheap and reliable supply of electricity to approximately 234,000 households in 229 priority development areas among depressed areas in Metro Manila in order to improve the welfare of the recipients.

The project comprised of materials for electrical distribution (poles, distribution cables, transformers, electricity meters etc.) and construction for electrical distribution. Total project cost was ¥6,333 million (of which ¥4,284 million was in local currency), with 80% of the total project cost (¥5,066 million) being covered by the ODA loan.

2 Background

2.1 Situation and Problems in the Depressed Areas (at the time of appraisal)

The number of the poor in the Metro Manila were estimated to be approximately three million in 1985, with an income of around P650/ month (1/7 of the average income of the whole Metro Manila). The gap between the rich and the poor is a problem in the region, as is illegal squatting caused by the influx of farmers and those escaping rural hardship.

The residents of these depressed areas lived in structures constructed from makeshift materials lacking most basic facilities such as water supply and drainage. The electrification rate was also low. According to a survey by MERALCO, the Manila electric power company, less than 25% of households were receiving proper electrical supply. The others could not afford the charge for equipment installation (a deposit of Ps600), and were living with light from oil lamps etc., or were stealing electricity or buying it at high prices from black-market resellers. The inferior connections done by the black market resellers and power thefts caused power losses and fires.

2.2 Philippine Government Policy and the Significance of this Project

Reduction of the gap between the rich and the poor was one of the most important objectives of the Philippine government's Medium-term National Development Plan (1987~1992). The plan emphasized the necessity of building social infrastructure for the urban poor who comprise approximately 30% of city populations. One element of the plan was to recognize the residence rights of illegal residents and work for their welfare.

Beyond the public benefit of electricity distribution itself, this project is socially highly significant and the Philippine government gave it a high priority in requesting an ODA loan for its execution.

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2 At the time of the appraisal, the project was expected to cover approximately 234,000 households in 229 locations. However, when the actual number of households covered by the implementation of the project was checked, it was found to have risen to approximately 320,000 due to the influx of people to the depressed areas.
### 2.3 Project History

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>April</td>
<td>MERALCO submitted the feasibility study to NEDA.</td>
</tr>
<tr>
<td>1987</td>
<td>July</td>
<td>Philippine government requested this project as a candidate for the 15th ODA loan.</td>
</tr>
<tr>
<td>1987</td>
<td>October</td>
<td>Government mission dispatched.</td>
</tr>
<tr>
<td>1987</td>
<td>December</td>
<td>Prior Notification, Exchange of Notes.</td>
</tr>
<tr>
<td>1988</td>
<td>July</td>
<td>Philippine government requested this project as a candidate for the 15th ODA loan.</td>
</tr>
<tr>
<td>1989</td>
<td>March</td>
<td>NEA board of directors turned down the role of executing agency for this project.</td>
</tr>
<tr>
<td>1990</td>
<td>March</td>
<td>Agreement between the Philippine Ministry of Finance, MERALCO and the NEA on the implementation scheme. *</td>
</tr>
<tr>
<td>1990</td>
<td>June</td>
<td>Loan agreement signed.</td>
</tr>
<tr>
<td>1997</td>
<td>October</td>
<td>Loan execution deadline extended by two years (to October 1999).</td>
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*: The agreement was that the project would be supervised by the NEA, and MERALCO would implement the procurement and construction. In effect, MERALCO acts as the executing agency.

### 3. Comparison of Original Plan and Actual

<table>
<thead>
<tr>
<th>Project Scope</th>
<th>Plan</th>
<th>Actual*</th>
<th>Difference</th>
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</thead>
<tbody>
<tr>
<td>Electrification Project</td>
<td>234,000 households</td>
<td>310,000 households</td>
<td>+ 76,000 households</td>
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</table>

* Results are the number of households where electrification has been completed as of end of March 1999. Including all those to be completed within the planned period, 324,000 households in total are scheduled for electrification.

#### Implementation Schedule (as of end of March 1999)

The initial loan disbursement deadline was October 1997, but the preparation for each area took longer than anticipated. Therefore the deadline was extended by two years to October 1999.

<table>
<thead>
<tr>
<th>Event</th>
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<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>L/A signing</td>
<td>June 1990</td>
<td>June 1990</td>
<td>-</td>
</tr>
<tr>
<td>Procurement of equipment and materials</td>
<td>October 1990 ~ June 1995</td>
<td>October 1990 ~</td>
<td>(under implementation)</td>
</tr>
<tr>
<td>Construction for electrical distribution</td>
<td>October 1990 ~ December 1995</td>
<td>April 1991 ~</td>
<td>(under implementation)</td>
</tr>
<tr>
<td>Connection, electricity supply</td>
<td>March 1991 ~ December 1995</td>
<td>April 1991 ~</td>
<td>(under implementation)</td>
</tr>
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</table>
## Project Cost (as of end of March 1999)

<table>
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<th>Item</th>
<th>Plan (L/A)</th>
<th>Actual</th>
<th>Difference</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Foreign currency</td>
<td>Local currency</td>
<td>Foreign currency</td>
</tr>
<tr>
<td>Foreign currency portion (Equipment and materials for electrical distribution)</td>
<td>1,863</td>
<td>-</td>
<td>3,480</td>
</tr>
<tr>
<td>(For JBIC portion)</td>
<td>(1,863)</td>
<td>-</td>
<td>(2,845)</td>
</tr>
<tr>
<td>Local currency portion (Construction costs for electrical distribution etc.)</td>
<td>-</td>
<td>558</td>
<td>-</td>
</tr>
<tr>
<td>(For JBIC portion)</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Contingency (For JBIC portion)</td>
<td>186</td>
<td>43</td>
<td>-</td>
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<tr>
<td>Total (For JBIC portion)</td>
<td>2,049</td>
<td>680</td>
<td>3,480</td>
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<tr>
<td>(Foreign currency: ¥1 million, Local currency: P 1 million)</td>
<td>(2,049)</td>
<td>(479)</td>
<td>(2,845)</td>
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</table>

[Exchange Rate] Peso/US$ = P21, ¥/US$ = ¥133, ¥/Peso = ¥6.3
Third-Party Evaluation Report

Asia-Pacific Research Center, Waseda University
Yasushi Kikuchi
Research Assistant: Fuyuo Makino
1. Geographical Coverage and Historical Background of the Metro Manila Depressed Area Electrification Project

The Manila Electric Company (MERALCO), which is the electricity distributor for Metro Manila and its surroundings, is using JBIC loans to fund two social projects as elements in the Philippine government's development policy. The projects are the Depressed Area Electrification Project (DAEP) and the Rural Electrification Project (REP).

MERALCO have been carrying out rural electrification projects since 1977, providing electrical equipment in the area they cover. However, these areas are isolated from areas with electrical facilities, and even if they were close to electrified areas, the political situation would make it difficult to meet the demands of the residents. Most of the areas covered by the Metro Manila electrification plans suffer from ownership disputes between squatters and land owners. Therefore this project, the Metro Manila Depressed Area Electrification Project, is expected to serve political and social purposes beyond the basic task of the electrification plan, which is to install the necessary equipment. Among these additional tasks, the most important is to obtain legal property ownership for the residents of the squatter areas.

By 1980 the MERALCO brought the electrification rate in their area to 92.9%, a total of approximately 30,000 households. However, in 1982 their electrification projects incurred large expenses for the restoration of electrical equipment and facilities and they ran into a shortage of funds. The assassination of Senator Benigno Aquino in August 1983 led to unrest, political and economic crisis and growing social instability. This situation led many residents of the capital region to flee to the surrounding regions in search of safety, causing a steep rise in the population of those regions. The expansion of rural electrification projects in response to these conditions risked depleting MERALCO's funds. With the end of the Marcos administration, the rural electrification projects faced the worst scenario of cancellation.

With the EDSA revolution of February 1986, MERALCO restarted its electrification projects. This aimed to achieve high electrification rates in the regions as well as in the depressed areas within the area they covered. However, the electrification project for depressed areas of Metro Manila and the rural electrification projects (planned for Buracan, Rizal, Cavite, Laguna, Batangas and Quezon provinces) had no prospect of profitability and were judged to be unfeasible. In implementing DAEP and REP, MERALCO had to search for an alternative plan to cover their losses. Finally, the Philippine government, recognizing the importance of this project, decided to obtain an ODA loan from the Japanese government through JBIC in order to implement the DAEP/REP projects. Obtaining funding from an ODA loan was a highly effective way of achieving these projects, and increasing their scale. In 1990 it became possible to implement the MERALCO DAEP/REP projects as Philippine government projects. The implementation costs were covered by the ODA loan funded by JBIC, with 1999 set as the last year of JBIC support.

The Philippine government definitely perceives these electrification projects as an absolutely necessary policy measure for improving the living environment in the regions and in depressed urban areas. It can also be inferred from the government's campaigns to eradicate poverty and preserve a stable social order that the electrification policy is one of their more important measures towards those ends. These
projects increase opportunities for employment and education in areas that suffer from employment instability, low levels of education, malnutrition and crime, factors that undermine social stability, and transform these areas into communities with a safe neighborhood.

2. **Project Summary**

MERALCO's electrification projects, which are an element of public service, partly supports the government's campaigns to raise the national level of public welfare. DAEP is the most prominent of these projects. It is truly a showcase project, improving the lives and welfare of the poor who cannot otherwise enjoy the benefits of electricity. However, if the DAEP project supports and legitimizes squatting by the destitute, it will come under fire from the rich, particularly the big landowners. On the other hand, according to the law (the ERB Act), all residents of the area served by Meralco are entitled to the benefits of electrification. In fact, the squatter areas lack electricity infrastructure and electricity is stolen by brokers (who are called "Kapit" (= to connect) in Tagalog) and resold to the poor. This practice caused Meralco huge losses. Although system losses of up to 18% are allowable, these had dropped to 12% after JBIC funded DAEP. This is clearly due to the increased revenue from electricity metering and the decline of Kapit brokers.

The latest edition of the quarterly DAEP report states that by the 30th of September 1998 electrification works (electricity distribution wiring to the exterior of the building) had been completed to 97% of the 316,300 beneficiary households whose legal position had been clarified over the preceding seven years. Connections had been made to 312,828 beneficiary households at that time, comprising 99% of the 316,300 households who were targeted as beneficiaries by the DAEP project. Wiring companies other than Meralco have completed indoor wiring in 300,684 households, or 95% of the beneficiaries.

3. **Survey Objectives and Method**

The main objective of this study is to make a comprehensive analysis of the social impact of the electrification of depressed areas, to make an evaluation and to provide suggestions. The survey method used was the conduct of interviews with beneficiary groups, which is a social anthropological approach.

The survey covered the following four areas.

1) Balikatan Magkakapidbahay Association, Purok 14, South Daan Hari Taguig Metro Manila. Number of Beneficiaries: 506 households

2) South Victoriaville Homeowners Association. Puroku 10 Extention, South Daan Hari Taguig, Metro Manila. Number of Beneficiaries: 442 households

3) Riverville Homeowners Association. Inc. Movale St. Nagpayon, Pinagbuhatan, Pasig city. Number of Beneficiaries: 139 households

4) Association of Landless Residents of Maggahan Tanimang Bayan, Napico, Pasig city. Number of Beneficiaries: 5,226 households
We were accompanied by the following staff from MERALCO's DAEP team.

1. Mr. Edilberto Edrial, DAEP/REP, Project manager
2. Mr. Eduardo Concepcion, Community relations staff
3. Mr. Cesar Cortez, Jr., Staff

Ten households were selected at random in each of the four areas listed above and interviewed using questionnaires (attached). The common sociological conditions in all four areas are that they are residential areas formed by squatting and that they are a mix of races and religions. Of the areas, the Balikatan Magkakapatubay Association is a typical mixed-ethnicity, mixed religion residential area. At the same time, it was adjacent to the modern city of Manila, making it the area most susceptible to cultural and economic stimuli. As such, it was the focus of the greatest interest and attention, and an important element of the project was to nurture the beginnings of new leadership in the area.

4. **Social Anthropological Problems of Philippine ODA Projects**

The issue of how far a given society can adapt to externally-inspired social change (social impact) is one of the most interesting issues in the research field of social anthropology. For example, if a farmer who is able to cultivate his land adequately with an ox plough is given a cultivator as aid but cannot afford fuel and does not know how to repair it, it will be left to rust. If modern buildings are built which do not suit the local land and climate, the users will not be able to cover the maintenance costs demanded by its modernity (such as electricity for cooling) and the building will not be used for its original purpose. Research into the relationships between development and culture is urgently needed to provide ODA policy with suggestions based on social anthropology for constructive and effective development aid. Social anthropological concepts need to be incorporated into economic development policies for the execution of development plans. Rather than rigidly adhering to the supremacy of economic efficiency, policy must incorporate development concepts drawn from the culture of the recipient country. In the end it is these policies which will enhance the overall efficiency of aid.

The new concept of "cultural efficiency" as a means of enhancing the efficacy of social development aid, namely "the successes and potential which can be expected to be yielded by invisible culture, which cannot be numerically quantified in terms of yields and shares the way economic efficiency can". The 3D graph in appendix 1 represents an attempt to apply a specific development anthropological methodology to the evaluation survey of this project.

Another regrettable aspect of the progress of social and economic development under the Marcos, Aquino and Ramos administrations is the central position held by crony groups composed mainly of blood relatives. This is a domestic economic structure which has hindered the independent fiscal basis for regional development and the implementation of comprehensive development plans over the past 30 years. This kind of structural problem in social structures and immaturity in bureaucratic systems should be researched in conjunction with problems of social development. Furthermore, development policy based on the donor country's trust for others is a clear trend in the Philippines and in developing

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1 See Appendix 1 for a description of the cultural underpinnings of traditional Philippine society.
2 Social anthropology is a branch of anthropology which originated in England. It mainly specializes in comparative research into social structures. The analysis of social structures examines and compares the structures of marriage, families and relatives, the groups that are formed with others from outside those structures, and their problems.
3 The existence of interest groups on the fringes of political power is not a phenomenon unique to the Philippines, but crony relationships are condoned by society and can be viewed as a kind of social mechanism.
countries in general, but the failure of the flow of aid materials and funds from donor countries to improve the problems in the recipient countries which necessitated the aid in the first place reveals that there have been structural problems on both sides of aid relationships in the past.

Older aid policy emphasized speedy effects and tended to concentrate on visible structures such as bridges and ports, which means it could be described as concentrating on visible aid. Of course, when one considers the socio-economic development of developing countries, the improvement of community infrastructure certainly should not be neglected. It goes without saying that, when handled correctly, the construction of public facilities can benefit very wide groups of people. However, DAEP is a project which is effective in meeting the kind of needs stated above. In short, it can definitely deliver direct and indirect benefits to everybody in the beneficiary groups.

The Philippines has a culturally diverse society with multiple languages and ethnic groups. Therefore it is not appropriate to discuss aid to such a country in the same way as aid to other countries. When development aid policy is devised, it must be preceded by thorough research and consideration of each region's ideas, values and attitudes, which are based on its unique cultures, ways of life and religions. Without such a grasp of the unique character of the nature of the region, it is impossible to reach "aid theory based on the recipient side", which springs from the development concepts held by the recipient groups. I would like to emphasize that, in the execution of this project, the staff of the executing agency, MERALCO, took an approach that stood on the side of the beneficiary groups to encourage their spontaneous independence while considering the positions of both the donor country (JBIC) and the recipient country. This is solely due to the excellence of the staff concerned at MERALCO. The staff in charge of the project had deep and abundant knowledge of the reasoning and sensibilities of the poor groups. Therefore this project can be regarded as a successful example which avoided the risk of self-righteousness by the authority so often seen in administrators.

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4 Direct benefit includes improved standard of living through the use of electrical products, improved nocturnal security and a higher level of nocturnal activity. Indirect benefits include the reinforcement of social connections through the work involved in receiving electrical distribution connections (which will be described later), and stronger motivation to work due to more widespread desire to buy electrical appliances.
5. Analysis of Social Impact and Case Studies of Social Transformations (Case Study)

Area: Balikatan Magkakapitbahay Association, 506 households.

In this area, 506 houses are currently benefiting from the DAEP electrification project. These households were originally connected to electricity illegally. In other words, they were stealing electricity, using temporary meters with a high unit price of P4 per kilowatt-hour. With the implementation of the DAEP project they have been paying P3.5 or less for their electricity.

Similar to other squatter areas, squatter houses in this area were frequently torn down until the early 90s, forcing the squatters to relocate repeatedly. The news that it was possible to acquire legal land ownership in the area through government projects drew more people in. The use of gas lamps due to the shortage of electricity caused numerous small fires. At present, gas lamps are no longer used and well water is constantly available, preventing the incidence of new fires.

From 1997 the residents have petitioned Meralco to remove the stigma of squatting from their name, but the electrification works were proceeding slowly. The greatest problem was that, at that time, the individual owners of most of the land in the community would not accept the placement of utility poles on their land. Furthermore, most residents suffered from financial problems. The financial burden on the community as a whole amounted to P360,000, but that has now decreased to a total of P100,000.

In the end the landowners agreed, under pressure from city councilors, to sell an area of 100m² of their land for the installation of transmission lines. The government paid the landowners P10,000 per square meter. In order to qualify for the DAEP project, the area had to provide road access and land for the electricity transmission utility poles. The community plans to pay off the debt over 25 years, with each resident household paying around P190/month.

At present, the average household uses electricity for fluorescent lamps (two or three lamps of around 20 watts), a television, one or two fans and a karaoke system, for which they pay electricity bills of around P300/month. A household with a refrigerator and a washing machine would pay around P700/month.

In the center of the community, there is a court for basketball, which is the national sport. It also serves as a recreation area and open-air meeting area. The community has a women's association for the worship of a religious sect, Lady of Fatima. The group of women (housewives) who form the core of this association and their group spirit served to promote this electrification project. The women had a better grasp of the state of the community compared to the men who went out to work during the day. They also had some income from side jobs, which had the effect of bringing them some social awareness. The women, who had some financial strength, were very interested in labor saving in their household chores, increasing income from their side jobs (sewing and trading in sundries) and using electrical appliances, played an important role in motivating the men to form community-level groups.

Nearly all residents had jobs, with very few people unemployed. The incidence of crime fell after electrification, and the use of television reduced the noise coming from children playing. Most people came to spend more time indoors in the evenings. As far as we could see, the proportion of pregnant women was not high. Increased entertainment, centered on television, was expected to bring a rapid reduction in the birth rate, but the leader, Mr. Jarabata, was concerned that the birth rate might increase.
again in two or three years due to the influx of pornographic videos. The use of videos for entertainment is in fashion, with most households having bought a VCR. The diversification of entertainment has reduced the incidence of fights between the men, and many respondents said alcoholism and drug abuse had also been reduced. These phenomena have led to a revival of public order in the community.

Entertainment for the men consists of weekend drinking parties and group karaoke. Family ties are very close. The community leaders usually have many compadres and commadres (close relations under Catholic etiquette). They find meaning in their lives through their families and friends. They say that electrification has made their lives much happier. Before, they lived in gloomy darkness, in an unhygienic and hazardous situation. Immoral people benefited from the darkness. Some residents said that before the project, the lack of electricity made them feel helpless. Clearly, without light and electricity, they felt they had lost some of their humanity, and an important portion of their lives. They were also deprived of hope and the will to work.

The men hold a wide range of jobs, such as electricians, factory workers, builders, plumbers, wholesalers, dockers, stevedores and security guards. The women work as factory workers or leave to work overseas as sharecroppers or seamstresses. Average income per household is PhP6,000. The lowest pay for a skilled worker is PhP250/day, while that for a factory or unskilled worker is PhP180. Most income is spent on food and it is difficult to spare money for anything else.

The main ethnic groups are Visayans, Bicolanos, Ilocanos and Cavitenos. The Visayans and the Bicolanos are the most peaceable to other groups. As noted above, the news that legal land rights could be obtained was passed to blood relatives, and also to compadres and commadres, who scrambled to move into the area.

In a society such as that of the Philippines with a bilateral kinship structure, women are usually held up in a position of respect by men, rather than being socially discriminated against. In this association, there are two female as well as eight male directors. They serve as the secretaries, which is not unusual. At present, the association holds the land used for the electricity distribution poles. As the MERALCO electrification project is improving the quality of their lives, the residents hope that one day they will each come to own the land they live on. The residents believe they could obtain a plot of around 700m² (an average of 37~42m² per household), which is less than they live on now. Most of them would be very happy to own their own land, even if it was small.

The loan agreement with JBIC was concluded in 1991 and implemented from 1992. The residents are united in saying that over six years the project has given them hope and happiness.

Now let us consider the emergence of new leaders. Clarifying the process by which Mr. Jabarata, who was mentioned above, came to be selected as the leader helps to illustrate the politics of depressed areas. He moved into the area in 1993 from the Antipolo area after being invited by a friend (a compadre). At that time it was still a squatter zone, but according to the information from his compadre, it was soon going to be legalized and he recalls that there was the prospect of acquiring his own land. When he moved in, there were only 300 households in the area, but by the time the decision for private land ownership was taken in 1995 the population had grown to 506 households. As noted above, the women's community leadership consisted of devising specific proposals for community development, offering their opinions to the men and pushing them to get involved in political activity. He did not try
to show signs of it, but in the interview he unintentionally revealed his political ambitions. He handles people well and takes great pains to look after the residents. However, this alone is not enough to make a leader. According to sociological explanations to date, in a bilateral society, there is little prospect of political unity emerging from a mixed community comprising multiple ethnic groups lacking leadership. The Philippines is no exception. However, a close analysis of this community's case shows that the conditions are in place for the formation of a new community. The first factor is that Mr. Jabarata is of mixed blood between an Ilocano Christian father and a Magindanao Muslim mother, and is therefore able to understand multiple cultures and religions. The second factor is his duality, belonging to both a large ethnic group and to a small one. Duality means that he cannot take action that is biased towards any one of the four ethnic groups in the area, which is a popular position. Under his leadership, a sense of solidarity in a group was created and certainly the strengthening of their unity benefits these multiple ethnic groups. This kind of phenomenon is a sociological phenomenon based on principles of interest relationships which are their unique sense of values. What is remarkable is the emergence of local community with a political complexity which transcends blood relationships. Such a phenomenon has not been mentioned in any previous studies of the Philippines. If this political and familial community grouping can continue for a number of generations it will certainly have an impact on the theory of social anthropology, and particularly of development anthropology. It will break down the established wisdom left by previous researchers, which held that in a bilateral society there was no possibility of forming political communities transcending blood ties because of the lack of leadership.

I have already stated that the DAEP has played an important role in building communities. It has certainly acted as a trigger to motivate the transformation of residents into political communities grouped around leaders. Through these leaders, MERALCO has been able to make the residents feel the obligation to keep paying their electricity bills on their due dates and make them aware that dishonesty and the use of stolen electricity constitute bad behavior. MERALCO's real motives are not clear, but their treatment of leaders to support their positions has been handled superbly.

6. Lessons Learned and Evaluation

One condition for laying the foundations for the next generation of development is the raising of community awareness that supports group principles. For progress in social development, people must have the courage to move beyond blood ties and build social values in their place. We have seen an example of a community which is forming beyond blood ties which shows potential for future progress through this project.

In considering the modernization of societies in developing countries, it is extremely important to understand these cultural foundations. I believe the comparison with family structures described above shows that the question of whether or not developing societies in developing countries can move forward depends on whether or not their members have the courage to move beyond blood ties in search of further progress. To put it another way, their level of awareness must escape from the level of the bilateral extended family to reach the levels of community groupings incorporating non-blood relationships, and beyond to the national level. This progress is one precondition for "modernization". In order to transcend blood relationships and reap the benefits of social dimensions they will each have to become organization men and form a community. If that is to happen, society and the government will have to enable people to receive from others the kind of support and protection they could previously only count on from relatives.
This survey clearly showed that the DAEP staff were communicating well with the communities, winning a very high level of confidence from them. The staff's community out-reach activities have created a model for participatory development that is appropriate for the Philippines. This project was also suitable in the scale of the development. In the future, more small and medium development projects of this kind should be devised and detailed. Furthermore, effective methods should be devised for their implementation. There are good prospects for secondary DAEP in other countries. This has been a successful example of how to avoid the dangers of self-righteousness among bureaucrats, and development projects led by the people.

Finally, the social impact of this project on the people affected has been to promote the formation of communities as political groupings in which people who are not blood relatives pursue common interests. Although the residents were not aware of it, the DAEP played a very important role in building communities. The DAEP made a great contribution in motivating people from diverse ethnic groups to join together in forming political communities around their leaders. A new cohesive principle among the people of the Philippines can be added to the research made to date on Philippine communities.
In debating how social anthropology can make a real theoretical contribution to development theory, the clearest point is in examining the importance of relationships between communities and its constituents for the implementation of development plans. In this report, I will use the familiar theory of social anthropology to analyze and explain the relationship between kinship structures and the ability to implement development.

The basic kinship structure in Philippine society is ego-oriented and either unilateral or cognatic. Japan's traditional kinship structure is ancestor-centered and unilateral.

From the point of view of principles of human relationships, I will explain these two kinship structures with reference to Japan's traditional kinship structure for the former type and to the Philippines' kinship structure for the latter type.

The typical kinship structure in the Philippines is a bilateral kinship system. In a bilateral kinship system, an individual has uninterrupted relationships with the families of both parents. Therefore, as shown in Figure I, the number of relationships between the individual and previous generations is theoretically explained by the coefficient 2 to the power of n (where n is the number of generations). However, the number of remembered generations is very small in practice, usually around 2~3 generations.

In contrast, Japan's kinship system tended to be patrilineal, dominated by the first son, and based on the principle of descent line. Thus the relationship between father and first-born son is the axis of the
kinship system. However, in Japan's kinship relationships there are occasionally cases of succession based on the incorporation of adopted children who are not blood relatives, rather than on the principle of strong blood relationships that is seen in bilateral societies. This kind of phenomenon indicates that in traditional Japanese society the continuation of the family line was placed above individual people. In short, even if the person to carry on the family line was not a blood relative, a suitably qualified person could be chosen. Compared to this attitude, the Philippine perception of kinship relationships puts a very strong emphasis on blood relationships. Therefore there is generally no possibility of choosing to adopt a child who is not a blood relative.

For the individual in Japan's axial family (head family), there is a very clearly delineated linear structural relationship between the head of the household (the father) and the successor, as can be seen in Figure II. However, as noted above, that single line does not necessarily mean only blood relationships. Rather, the emphasis is placed upon the sociological line. Second and third sons can separate from the head family to form their own branch families, creating vertical relationships modeled on the parent-child relationships between the main and branch families. This kind of cognate grouping serves to stabilize give-and-take relationships of mutual support.

In the Philippines the order of authority between siblings depends solely on the order of birth, with no relation to gender. Rather than assigning authority according to gender, society in the Philippines treats both sexes equally.

The human relationships surrounding an individual form a cognate group founded on unilateral blood relationships, as shown in Figure II, with the people within the solid line around the individual clearly being far more numerous and strongly rooted than in the kind of ego-oriented relatedness seen in Figure I. Thus in Figure II, the number of people in the group around the individual is broadly proportional to the number of generations considered. All these people are, sociologically, in kinship relationships, and all can benefit from the assets built up by previous generations.

Moreover, this group functions as an autonomous supra-generational community. Therefore the right of membership is innate and the individuals rights and obligations in respect to the group function clearly. Therefore the existence of the "family" for the kin members of such groups to hold on to play an important role as the symbol of inheritance from ancestors, strengthening the sense of solidarity and the bond between group members. The existence of this family is superimposed with reverence for forefathers, leading to the formation of a group based on trust. In that sense, a society with a Japanese-style kinship structure can be called "a society with a high level of mutual trust".

On the other hand, the bilateral society of the Philippines cannot enjoy the supra-generational protection afforded in Japan by the assets and family name built up by previous generations. An individual in a bilateral society must look for people with whom they can build the mutual support relationships they need to survive in their own generation. Therefore the first thing individuals must do is solidify the fluid, rootless family relationships which surround them. These family relationships are called personal kindred relationships and are the only human relationships the individual can depend upon.

However, in life within a society, relationships with non-relatives are also necessary. Therefore there is the Compadrazgo system of formal family relationships springing from the religious relationship between godparents and godchildren who are baptized into the Catholic church. The relationships of interdependence between the godparents and the parents of the baptized children supplement acquisitive human relationships, and form exclusive club organizations which increase the relationships
between the "club" members. This creates a social mechanism for broadening the network of interdependent relationships which exists around an individual. These quasi-kinship relationships could be called contractual human relationships. To put it another way, in a bilateral society such as the Philippines, it is impossible to have close trust relationships with non-blood relationship without a formal contractual relationship. In general, people in non-kinship relationships are looked on with suspicion. Kinship organizations in bilateral systems lack autonomy as groups and it is difficult for people in kinship relationships to form communities and create rigid membership rights. Therefore I refer to this kind of society as an uncrystallized society. Thus in kinship structures in bilateral societies, individuals build on the main axis of their ego-oriented relatedness with kindred as they seek to expand, as far as possible, their quasi-kinship relationships based on contracts or trust in response to individual ability. Furthermore, they would like to become leaders, if leadership is open to all. Conversely, it would be true to say that this shows a lack of leadership. Therefore, this kind of society can be termed "a society of distrust".

Human relationships in bilateral societies, as seen in the Philippines, are built on a foundation of person-to-person relationships working on the principle of interest relationships. Individuals use various methods to create pseudo-relatives, but this is clearly done in order to create relationships of interdependence. As I mentioned in passing above, this kind of personal structural principle leads people in bilateral societies into relationships that value people as they really are and rationalize the theory of interest relationships between two parties. When we consider kinship relationships against the background of this kind of informal human relationship, people are protecting themselves for the future when they give priority to the family relationships. Looking at human relationships at the social level, the emphasis is always placed on face-to-face personal relationships. Personal structural principles, namely interest relationships between two parties, will always be given priority over public structural principles.

When one considers the modernization of Philippine society, it is highly important to have a grasp of this kind of cultural foundation. Based on the above comparison of kinship structures I believe the comparison with family structures described above shows that the question of whether or not developing societies in developing countries can move forward depends on whether or not their members have the courage to move beyond blood ties in search of further progress. To put it another way, their level of awareness must escape from the level of the bilateral extended family to reach the levels of community groupings incorporating non-blood relationships, and beyond to the national level. This progress is one precondition for "modernization". In order to transcend blood relationships and reap the benefits of social dimensions they will each have to become people within organizational structures and form a community. If that is to happen, society and the government will have to enable people to receive from others the kind of support and protection they could previously only count on from relatives. Therefore the government and other political and social groups must do more than they did in the past to serve as the protectors of the people. This will demand a greater level of maturity in the bureaucratic system.
Appendix 1

Graphical presentation of evaluation findings

Area considered: Riverville Homeowners Assn. Inc.
Beneficiaries: 139 households (population approximately 400)
Number surveyed: 17 households

This area was the most depressed of the four mentioned above. In July 1998, the residents of the area asked MERALCO for electrification. Therefore at the time of the survey the electrification works were not complete and therefore the area differed from the others in having 5% of respondents expressing dissatisfaction. In the other three areas none of the respondents expressed dissatisfaction with this project, which provides a cheap supply of electricity. The reason is that the project is perfectly aligned with the interests of the beneficiaries. In such cases 3D graphs have little visual appeal.

As noted above, the survey took the form of interviews. There were 25 questions, of which 14 were suitable for graphical representation of responses. In answering the questions, respondents allocated points between two or three levels. Two-level (Yes/No) questions set Yes=1, No=0. Three level questions had Yes = 1, A little = 0.5 and No = 0.

The formula for calculation of satisfaction was:

\[
\text{Satisfaction} = \frac{\text{Total of points from all respondents}}{\text{number of questions} \times \text{number of respondents}} \times 100\%
\]

Satisfaction is therefore expressed in a range 0~100%. Substituting the survey figures for the above area the result is as follows:

\[
\left( \frac{259}{17} \right) \times 100 = 95\% \]

In addition,
Recipient country (MERALCO) satisfaction = 100%
Donor country (JBIC) satisfaction = 100%
Combination of the above results produces a 3D graph as shown below.
Appendix 2

Example of graph analytical technique

Graphical presentation must start by finding the evaluation indices (satisfaction) for the donor country, the recipient country and the beneficiary group.

For the beneficiary group, questionnaires were prepared in advance and an interview survey was conducted. The replies to the questions were Yes = 1 and No = 0. For the three-level questions, Yes = 1, A little = 0.5 and No = 0. The formula for calculation of satisfaction was:

The evaluation index is (points/ Total points (number of respondents)) x 100.

This method gives evaluation indices in the range 0–100%. Where the donor country scores x%, the recipient country y% and the beneficiary group z%, the results (x,y,z) = (60, 70, 80) can be presented graphically as seen below.
From the above graphs in Figure 2 and Figure 3, we can judge whether the project was most effective for the donor country x, the recipient country y or the beneficiary group z. The problem is how to set the evaluation coefficients for the donor country, the recipient country and the beneficiary groups for evaluating the graphs. For example, the form of the line in graph three is tilted towards the beneficiary groups. At first glance it appears that the project was most effective for the beneficiary group, but if the satisfaction coefficient for the beneficiary group is higher than that for the donor country, the values of the coefficients must be used to find out which side enjoyed the greater effect. As a result, the coefficient values must be found first before it is possible to make conclusions from the graph.

To find out what the coefficients for the donor country, recipient country and beneficiary group are, let us suppose they are all the same (the standard for the degree of satisfaction is the same), which would be the ideal situation. Then the effect can be judged from which axis the line is closest to. If the degree of satisfaction for each side is equal, the line would be at an angle of 45° to each axis. If the degrees of satisfaction are not all equal, the side enjoying the greatest effect would have a smaller angle between the line and its axis. For example, in the graph of Figure 3, the satisfaction of the beneficiary group is higher than that of the donor country and therefore the line of the graph is tilted towards the axis for the beneficiary group.

However, normally the evaluation coefficients for each group have different values. This is the case because the evaluation criteria differ for each country and different values must be set for the evaluation coefficients for each donor country, recipient country and project. The social development policies, values and other aspects of the donor and recipient countries will not be identical, which makes it extremely difficult to set the evaluation coefficients. Comparing the two approaches, it is easier to calculate the environment coefficients from the results of interview surveys in the field.
Appendix 3

Questions which were applicable to graphical presentation.

Social Impact Interview Questionnaire (Philippine)

1. Do you think that DAEP really responded to the needs of your community?
2. Are there some sectors in the community who are excluded from the program?
3. Has the DAEP met your expectations?
4. Are all groups in your community equally treated by the DAEP staff?
5. Is your community regularly consulted in the implementation of the program?
6. Are members of your community given the opportunity to speak out and give suggestions in consultation meetings?
7. Were you allowed to participate in
   Q a. the planning of the project?
   Q b. the implementation and monitoring of the program?
   Q c. the evaluation and modification of the program?
8. Did the DAEP staff explain very well the objective of their program and the expected results of the program?
9. Do the DAEP staff recognize your community’s value and ways?
10. Did you understand the briefing given by the DAEP staff about the operations, maintenance and safety of the electrical equipment and the use of meters?
11. Did the DAEP staff assist you in the preparation of proposals and application of permits?
12. Are you satisfied with the services provided by MERALCO under the DAEP?
13. Does the DAEP encourage the bayanihan system in your community?
14. Does the DAEP have built-in ways for improving its implementation based on periodic results and suggestions from your community?
Electrified district

Meters installed by this project

A school electrified by this project (also used as a meeting place)