SOCIAL IMPACT ASSESSMENT

— Korean Irrigation Funded by USAID —

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This report has been prepared as an assessment of the social impact of an irrigation project funded by a loan from USAID. The research has been implemented by the Korea Rural Economics Institute under contract to the Government of the United States, represented by the AID representative to Korea at Seoul, Korea, on behalf of the Agency for International Development.

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FORWARD

Korea has experienced great social change in recent years with its rapid industrialization. During the 1970s many low-income rural areas were exposed to an accelerating process of modernization through the government's intervention in various community development programs. The government's effort to upgrade the quality of rural life has brought great progress to rural areas.

The AID irrigation project was part of the nationwide agricultural and rural development program. The major goals of the project were to improve production of rice and barley and subsequently to increase farmers' income. After the completion of the AID water projects, research teams which visited Korea found that rice yields had increased significantly and that the increase of farmers' incomes had met the originally-set target as a result of the implementation of the water projects.

The goal of our survey was to assess the overall social impact of the projects on beneficiaries and related people. Many persons helped me finish this report. Special thanks go to Mr. Shim Jae-Woong for his invaluable and most dedicated assistance at all stages from the data collection and analysis to the reading of the final draft.

Appreciation is expressed to Mr. Min Sang-Ki and other staff in the Department of Rural Society for their help in various work. Thanks are also expressed to Dr. Kym Anderson and Margaret Kim for their reading and correcting of the English expression. Special acknowledgement is given to Miss Han Jung-Soo for her typing.

The comments herein should be attributed to the writer alone and the content of this report does not reflect any opinion of the Korea Rural Economics Institute or AID.

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I. INTRODUCTION

A. Background

In April 24, 1980 USAID granted research funds to Korea Rural Economics Institute (KREI) to conduct a social survey to assess the social impact of the AID water project on project beneficiaries in rural Korea. The water project was based on AID Loan No. 489-T-090 granted to the Republic of Korea in May, 1974 in order to help finance the completion of "up to 66" land and water development projects throughout the rural countryside. These 66 projects were small and medium scale projects designed to benefit 52,288 hectares of land. By the time KREI began the social impact survey in May 1980, AID funds had assisted the completion of 55 projects.

A series of studies to evaluate the effects of the project before and after completion of the water facility construction were to be conducted. For example, in 1975 a baseline survey was carried out to assess the economic and agricultural status of farmers and their villages in the project areas. The baseline data, collected by Richard Duvick, Jeong-Boo Kim and Jeong-Bae Kim, were to be compared with data to be collected after project implementation. In May, 1980 this post-evaluation survey was conducted by the Agricultural Development Corporation (ADC) under the supervision of Dr. Richard Duvick. The evaluation studies by Duvick and others (such as the 1976 survey carried out by ADC assisted by Dr. Martin E. Hanratty, Analyst, Korean Agricultural Planning Project) were, however, concerned mainly with the economic analysis of the porject's impact.

The AID administrator also sent a research team to Korea to conduct an evaluation of the actual impact of projects on beneficiaries. This AID irrigation impact evaluation team, consisting of David

Steinberg, PPC/E (the team leader) and Robert Morrow, NE/TECH from the AID administrator's office and Ingrid Palmer, a British economist with extensive Asian background, was tentatively scheduled to arrive June, 1980. Although the AID research team was to be concerned with a comprehensive examination of the social and economic impact of the projects, the AID administrator felt that a further survey covering the social aspects of the project's impact on beneficiaries should be undertaken and analyzed prior to the arrival of the AID research team. Thus, for both AID and KREI, time was very pressing. The KREI's social research proposal was communicated with AID in Washington, D.C. through cables in early April, 1980, and the final research contract between the AID representative in Korea and KREI was signed on April 24, 1980.

B. Objectives of the Study

Aiming to complete a priliminary analysis of the survey data before the arrival of the AID research team in June 1980, KREI interviewed farmers over the period May 6-15. While the goal of KREI's social survey was to assess the overall social impact of the AID water projects on beneficiaries and related people in rural Korea, specific objectives were spelled out by AID through cables. The specific objectives of the survey were:

(1) To measure beneficiaries' perception of the effects of the projects on their lives and those of their families, and to explore social and economic impact on nearby non-irrigated farmers and others such as non-project farm labor affected positively or negatively by the project. Interviewees should be distinguished by sex.

(2) To distinguish effects of general Korean economic growth and rural development projects over the past five or so years from effects of the project.

(3) To assess the effects on project management and beneficiaries of other village or land level organizations such as the Saemaul Undong, cooperatives, etc. For example, where did village leadership come from and what impact did it have on the project?

(4) To examine the impacts of the projects on family roles. Specifically, how did the project affect the social or economic status of women?

(5) To explore other sociologically significant questions. For instance, was the project evaluated positively or negatively in terms of farmers' perceptions of mobility and income? What is the debt burden on farmers and how is it perceived? What were the effects of land reform, tenancy and tenure on the project and its beneficiaries? What was the interaction between the village and the next level of administration such as the Gun, Eup, and province? What types of extension assistance were available to beneficiaries and were these important? Is the project replicable by the Korean government?

In brief, the major purpose of this research is to evaluate the changing quality of life among beneficiaries in the project areas as a result of the water projects.

C. Outline of the Report

The remainder of the report is broken down into six major sections. Part II presents the conceptual framework and research design. Part III provides us with a general profile of respondents and their

villages in rural Korea. Part IV describes indicators of socioeconomic living conditions of farmers including their demographic background, while part V presents an evaluation of social psychological and subjective aspects of farmers' changing quality of life. Part VI describes organizational and managerial aspects of the water project and its direct impact on beneficiaries. Finally Part VII presents a summary and concludes with forecasts for the future and policy implications.

II. CONCEPTUAL AND RESEARCH DESIGN

A. Conceptual Framework

1. The Concept of Social Indicators and Quality of Life

Recently, social scientists have shown a great deal of interest in measuring quality of life through various social indicatiors. The social researchers' concern with this problem has been increasingly hightened since the problem of defining and measuring quality of life as well as social indicators has become more and more a public issue related to social policy for the national or regional development and improvement of the well-being of the citizens.

This recent trend is understandable when one considers the fact that the ultimate goal of the national or regional development program is to enhance the quality of life of the citizens. Quality of life, however, is such a broad concept that it includes not only the economic condition or material living standard of the people but the cultural, social, and psychological state of well-being of individuals and their environment. It is a multi-faceted and comprehensive concept. It has both objective and subjective aspects. It covers almost all aspects of human life and their surroundings which have an impact on the well-being of individuals.

Thus, it can be measured by objective indicators (or social indicators in a narrow sense) - statistics, statistical series and other forms of empirical evidence and by subjective indicators - people's attitudes toward their environment or community and feelings about their life in general. These objective and subjective indicators of the quality of life are what we call social indicators. Social indicators, then are the tools or means to measure directly or indirectly the quality of life of the people, the ultimate end of public policy formation and programs.

However, it should be understood that not all social indicators do indicate the quality of life of every individual. It is commonly known that people with higher incomes enjoy their life better and are in fact happier than those with lower incomes (Cole, 1976). However, life satisfaction and happiness is a matter of degree and not everybody with a high income is happier than those of lower income status. The relationship between objective conditions and psychological states is very imperfect. Thus, in order to know the quality of life experience it is necessary to go directly to the individual himself for his description of how his life feels to him. In this sense subjective evaluation of one's life conditions or life quality seems to be a better indicator of one's quality of life than any objective indicator (Camebell, Converse and Rodgers, 1976). Of course, this statement is not intended to deny the fact that overall, people with more income and wealth are more satisfied with their life than those with less wealth.

In view of this point, objective social indicators commonly used by social scientists and researchers should be regarded as conditions or constraints that affect an individual's perception of his or her quality of life. This is the reason why it was stated above that social indicators are tools to measure <u>directly</u> or <u>indirectly</u> the quality of life. Put differently, we regard objective social indicators (e.g., family income) as life conditions or constraints that have an impact on and thus measure indirectly quality of life of individuals.

Subjective social indicators, then, are the means to measure people's quality of life. However, it should be pointed out that not all subjective social indicators are to measure directly the quality of life of individuals. Some subjective indicators are to measure collective aspects of quality of life among people and some others are used to

measure individuals' evaluation of their life from their personal viewpoint. The former indicators are to measure the external or environmental conditions relevant to the quality of life of individuals whereas the latter indicators are to show how people themselves evaluate various aspects of their lives (Andrew and Withey, 1976).

However, despite wide spread interest in developing social indicators useful for measurement of social conditions or changes in quality of life, many of these indicators are not theoretically well connected. This lack of theoretical framework which can integrate various social indicators into a logically consistent framework is not stemming from social researchers' neglect or lack of effort to develop it. Rather, this problem is based on our inadequate and imperfect understanding of social reality.

Thus, one approach we can take is to begin our study of social indicators, particularly those geared to measure the social impact of any developmental project or the overall social change in an individual's life with a set of variables of presumed importance and seek primarily to examine how these have changed in relation to other variables. The end result is typically a set of a relatively simple statements, perhaps an elementary model of "causes and effects."

This simplest model of cause and effect has some practical utility for policy making purposes, but usually little informative value for a general understanding of social processes and their antecedents. Thus, despite the fact that there is no general theory or conceptual framework yet developed to describe and explain social phenomena and processes in their totality, some sort of conceptual framework is essential for us to describe and analyze social phenomena. Without such a framework it is impossible to develop a useful research design.

2. Theoretical Basis for a Social Impact Analysis

A social impact survey purposes to measure any change occurring in a social setting (or community in our research design) and assess its impact on man in their community. The impact may be direct or indirect and beneficial or adverse to community residents. Thus, a social impact assessment is concerned not only with economic indicators but also with questions about human relations, personal life-style, social structure and the culture in which the individual lives.

In the present research framework, we are specifically concerned with man in his or her community, or more specifically his or her quality of life which would be influenced by a community-wide developmental project. As it was pointed out already, quality of life of residents is measurable indirectly through various objective variables (e.g., increased crop production or income) and directly by subjective indicators (perceived benefits or life satisfaction).

In this conjuncture, a question should be raised. What is the logical or theoretical basis which can justify a particular set of indicators to be used for the assessment of the quality of life of the people. Such a conceptual framework is essential to convert empirical facts or raw data into practically useful social information.

A conceptual model useful for the assessment of the social impact of a particular community project should include several factors. First, who are the people affected by the project implementation in the community? That is, who did benefit and who did lose? Among the beneficiaries who did gain most and who did benefit least? This is a question of benefit recipients and the distribution of impact in the community.

Second, what are the objective outcomes of the project? In the case of our study, for instance, what are the economic benefits (e.g., increased

farn household income or general living standard) or adverse effects (e.g., increased debt among farmers) resulting from the completion of the water project financed by a foreign aid agency? What impact did the project have on the physical environment or the community's social environment that are related to the quality of life of the residents?

Thirdly, what are the social-psychological or subjective consequences of the project? How do the residents evaluate the overall effect of the project on their life and community in general? How do they perceive or evaluate changes in their quality of life? What is their social-psychological state or attitude toward their life and community? Are they better integrated into their community or more alienated from their neighbor than before the project? Is their aspiration or expectation for their children's education higher than before?

The fourth question is concerned with how successfully or efficiently the project itself was carried out. What is the degree of efficiency in terms of the financial (e.g., benefit/cost ratio) or managerial aspect (e.g., output/input ratio)? Is the project successful in terms of internal rate of return? What was the process of the project implementation? Who took the major role in the process of project implementation? Did community residents have an equal opportunity to participate in the decision-making or implementation process? What about the technological or organizational component that was relevant to the project implementation?

Finally, an effective social assessment should take into account not only the more immediate and direct social impact on the people and community (in population, economy, etc.), but the extent to which it forecasts changes in the social processes, values, resources, and the quality of life of the people which emerge over a period of time after the implementation of the project (Fitzsimmons, Stuart and Wolff, 1977).

Of course, this is the most difficult task to accomplish since at this time we simply do not have adequate techniques or scientific methods through which we can predict future social phenomena. Nevertheless, our evaluation model should include this last element simply because the ultimate goal of the evaluation research is to predict continued future benefits and to obtain useful social information which can be used for further social recommendations, or future policy-making. Furthermore, even in the present stage of scientific knowledge we can get some idea about the future trend or direction of change derived from sound evaluation research.

So far we have identified five components that make a conceptual model for social impact research. These components are:

(1) Recipients (People in their community);

(2) Objective Indicators (environmental, cultural, social and economic conditions or constraints. Some of these constraints are external to individuals, e.g., physical environmental, technological or structural constraints. Others are individualistic constraints, e.g., size of family members or income);

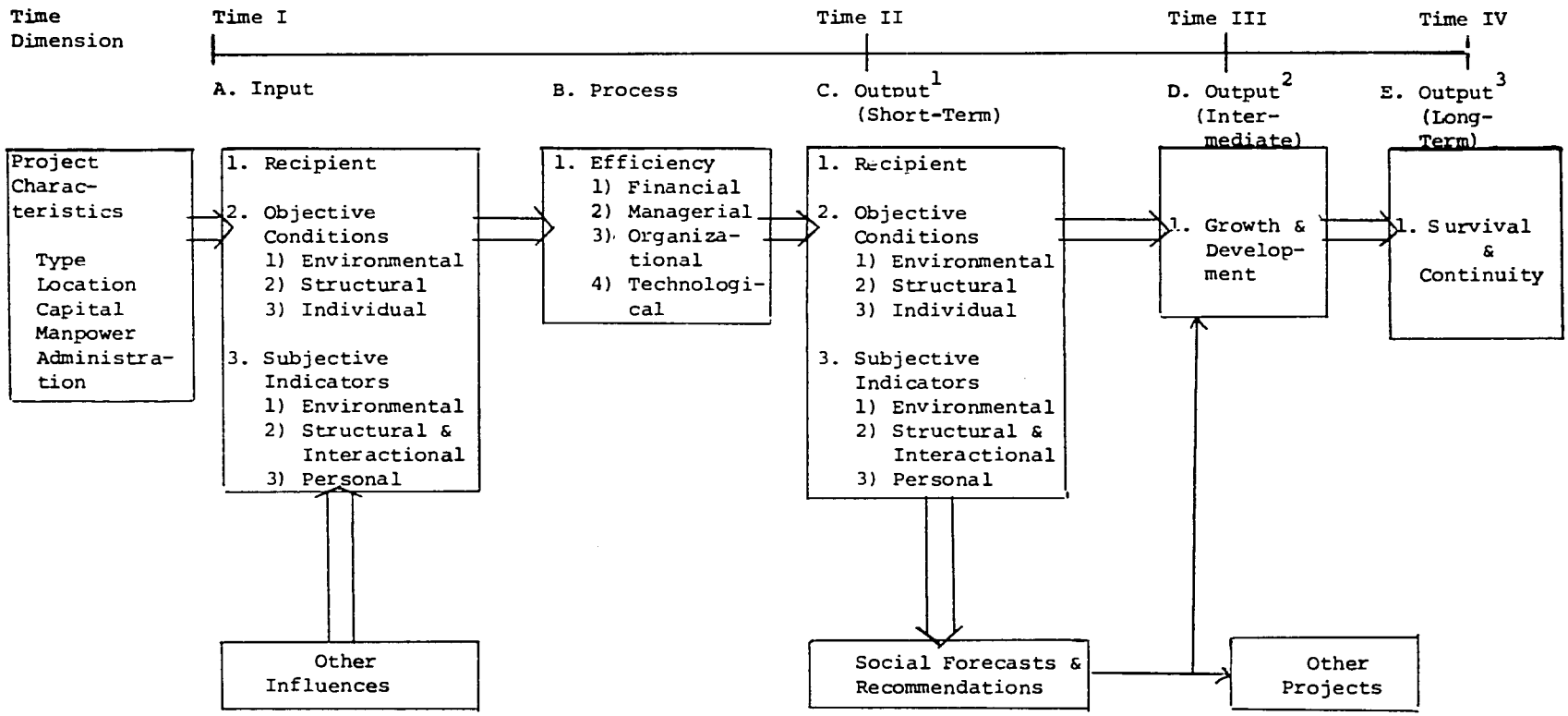
(3) Subjective Indicators (subjective indicators related to quality of life. Some of these are the individuals' perception of the quality of their surroundings. Others are the individuals' subjective evaluation of their own life quality);

(4) Process or procedual evaluation (financial, managerial and technological efficiency); and

(5) Forecasts for the future (social recommendations).

The conceptual framework consisting of the avove five components may be diagramed as follows:

Figure 1. Diagram of the Project Effectiveness Model



The figure illustrates that our conceptual model is a simple system model based on input-process-output formula. In this model, however a heavy emphasis is put on the human element. That is, the research focus is put on the people in their community who are directly or indirectly affected by a developmental project. Emphasis on the human element is seen again in the component of subjective indications, i.e., people's perception of the quality of their life and surroundings. Furthermore, our model indicates that human and organizational interaction process through which the community goal or task (e.g., Water Project) is accomplished is an important element.

This theoretical orientation derives from the tradition of interactionist perspective in the area of community studies. The interaction approach to the study of community emphasizes the need to look at community phenomena in terms of the dynamic patterns of human interaction taking place within a local area and to delineate the stages through which interaction events and episodes proceed (Murdock and Sutton, 1974). The works of Bernard (1955), Kaufman (1959), Sutton and Kolaja (1960), and Sutton (1970) are examples of this approach. The origin of this "interaction theory" may be found in Weber's classic "theory of action" which was exapnded by Parsons (1949), and secondly in symbolic interaction theory, which may be traced to the works of Mead (1934), and Corley (1902), but finds more recent expression in the writings of Blumer (1962), Duncan (1969), and Warriner (1970). Both of these models conceive the actions of individuals to be more or less independent of structural determinism and can thus be considered together (Kim, 1979; 1980).

One distinctive feature of the interactionist approach to the study of community is found in its emphasis on the social psychological dimensions of human interaction. This orientation derives from symbolic

interactionism which posits that actor takes an action based on his own interpretations and implications which he derives from the actions of others and from his own "definition of situation," meaning the situation where the actor is located (Bertrand, 1972). Thus, interactionisits tend to pay special attentions to such factors as (1) number of actors (or families), (2) social psychological dimension (e.g., awareness) of action, (3) perceived goal of action, (4) recipients of collective community action in their local area (Sutton and Kolaja, 1960).

This theoretical model is useful, in particular, for our evaluation research. This is so because, as it will be pointed out in detail later, we do not have base-line survey data collected before the project and thus have to rely on retrospective data or residents' perceived change of their life quality and situations. Thus in this study we will put an emphasis on the social-psychological aspect, i.e., the residents' subjective evaluation of the water project and/or the related change that occurred in their community.

B. Research Design

1. Sampling and Data Collection

During the period of May 6 to 15, 1980 we carried out a social survey funded by USAID to evaluate the social impact of the AID's 66 small and medium scale water projects on rural Korea from a sociological perspective. Out of 66 project areas 16 were chosen as sample sites for the survey. These 16 sample sites are exactly the same areas which were selected and surveyed by Dr. Richard Duvick and his associates in 1975 (Duvick, Kim and Kim, 1976). The original Duvick's sample was drawn with consideration of three factors: (a) size -- less than 400 hectares and 400 or more hectares, (b) type -- reservoir or pumping station, and

(c) region -- northern, middle and southern provinces corresponding to changing cropping pattern dictated by climatic differences in Korea.[1/]

In Duvick's smaple 60 villages were included, which were located in the project areas. In our survey, however, 30 more villages outside project areas were added as a sort of quasi-control group. Thus, our sample consists of a total of 90 villages (see Table 1). Some of these 30 villages were located near the project areas and others were away from the project areas. These control groups, however, were not chosen randomly. Two considerations were given to the selection of the sample from non-project areas. First, because of the limited time and available expenses we wanted villages which were not too far away from the project areas. Second, we wanted villages which had somewhat less irrigated land than villages in the project areas. Based on these criteria, we asked village leaders of the project areas which villages in the non-project areas would be most appropriate for our research purpose. Thus, our sample villages from non-project areas were selected on the basis of village leader's recommendations. There are further differences between Duvick's smaple and ours. In Duvick's sample, five respondents who were male heads of the households in the project areas were selected randomly. Thus, the total sample size of individual respondents amounted to 300 persons (i.e., 60 villages X 5 persons). Our sample, however, consisted of 540 persons (90 villages X 6 persons) since we had 30 additional villages from non-project areas and we interviewed one village leader or knowledgable person in addition to five other respondents from each villages. Furthermore, although we visited the same households in the project areas which were surveyed by the Duvick's research team, this time we interviewed heads of household or their spouses so that we can get information from female

1/ For additional information, see Duvick, et al., 1976.

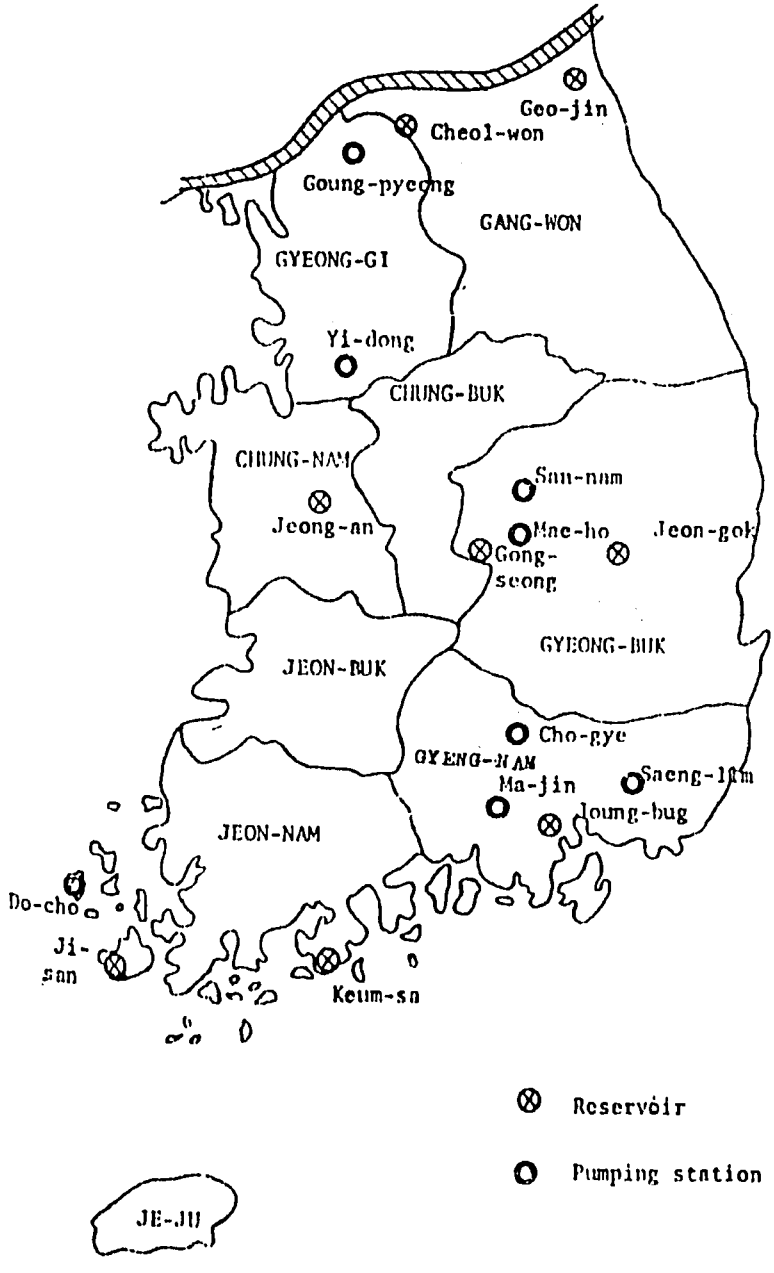
Table 1. Basic Information of the 16 Irrigation Project Areas Surveyed, Korea, 1980

Number	Name	Province	Type	Number of Villages Surveyed		
				Project Villages	Non-Project Villages	All Villages
1.	Geo-Jin	Kang-Won	Reservior	2	2	4
2.	Cheol-Won	Kang-Won	Reservior	8	3	11
3.	Goong-Pyeong	Kyeong-Gi	Pumping Station	2	1	3
4.	Yi-Dong	Kyeong-Gi	Pumping Station	6	3	9
5.	Jeong-An	Chung-Nam	Reservior	2	1	3
6.	Jeom-Gok	Gyeong-Buk	Reservoir	2	1	3
7.	Gong-Seong	Gyeong-Buk	Reservoir	6	3	9
8.	San-Nam	Gyeong-Buk	Pumping Station	2	1	3
9.	Mae-Ho	Gyeong-Buk	Pumping Station	8	4	12
10.	Do-Cho	Jeon-Nam	Reservoir	2	1	3
11.	Keum-Sa	Jeon-Nam	Reservoir	2	1	3
12.	Joong-Buk	Gyeong-Nam	Reservoir	2	1	3
13.	Ji-San	Gyeong-Nam	Reservoir	6	3	9
14.	Saeng-Lim	Gyeong-Nam	Pumping Station	2	1	3
15.	Ma-Jin	Gyeong-Nam	Pumping Station	2	1	3
16.	Cho-Gye	Gyeong-Nam	Pumping Station	6	3	9
Total				60	30	90

residents. As a result about one third of the total respondents in our sample were women.

Our decision to use the same villages and households which Duvick studied was based on the rational that we could use Duvick's data as baseline data which could be compared with our data collected five years later. However, later after our data collection was completed, we found that most of Duvick's data were not useful for our social impact survey purpose. In fact, as we will see later, none of Duvick's data was used in our data analysis. The reason for this is that Duvick's study was designed to calculate economic effects related mainly to agricultural activities and outcomes whereas our research goal was to get information about the overall social change and impact. Furthermore, in addition to Duvick's effort for the post-evaluation of the economic effect of the water project a USAID research team (led by Mr. David Steinberg) was going to carry out a separate survey to evaluate the major economic impact of the water project. Thus, there was no need for us to do any detailed economic analysis of the project effort. Nevertheless, basing our survey on the Duvick's earlier sample is somewhat justifiable for three reasons. First, we really did not have enough time to develop a new sample (our research proposal and the feedback of USAID's office in Washington, D.C. was communicated by telegram on account of time limitation). Thus, Duvick's sampling list which was carefully developed earlier was readily useful. Second, we wanted get some information about how many of the original respondents moved out of their village. We were particularly interested in the rural family's migration to urban areas during the period of the past five years. Finally, even though our research goal is different from the Duvick study's objective, the two studies based on the same sample

Figure 2. The Location of Sub-project Areas Selected for the Post-Evaluation Survey, 1980



and areas would be complementary to each other and would provide us with a more complete picture of the water project impact.

The sixteen sample sites were divided into five regions and these were assigned to five supervisors and twenty six well-trained interviewers. Out of these five regions, however, one (Jeon-Nam Province) with three sample sites (Docho, Jisan, and Keumsan) was assigned to Dr. Hyup Choi, an Anthropology Professor of Jeon-Nam University and his associates. These sample sites were most isolated from Seoul (see Figure 2). Four other regions which included thirteen smaple sites were surveyed by four supervisors who were staff in the Department of Rural Society, KREI and nineteen-hired interviewers.

In order to minimize non-sampling errors several tatics were used. First, we carried out a pretest survey to get information about the water project and to check our interview schedule. Based on this survey and pretest of the questionnaires which were applied to about twenty respondents residing in one of the water project areas near Seoul we finalized our survey instruments.

Second, we arranged about four hours of training for the supervisors and interviewers. Since the interviewers we hired were well-experienced interviewers with good reputations, four-hour training and discussion was regarded sufficient.

Third, everynight after the interviewers' daily field work was over they got together with their supervisors and discussed any difficulty or problem they had encountered. Of course checking and editing the questionnaire was routine work and every questionnaire was rechecked by the supervisor. This type of daily meeting and discussion was imperative to improve the quality of the data, especially in the early stages of the survey. One problem, for example, continuously brought

up in the evening discussion was lack of privacy or interference of other persons in the process of interviewing. This problem occurs partly due to the nature of Korean culture and partly owing to the housing structure in rural Korea. Although interviewers were instructed to take every precaution to avoid this problem, occasionally it was reported to be impossible for the interviewer to control the situation and thus contaminate our data with non-sampling errors.

Of course, there are other sources of bias (e.g., the interviewer's bias) and errors (sampling errors, e.g., drop-out or interview refusal and other non-sampling error such as measurement errors or mechanical errors). Nevertheless, rural respondents were very cooperative and village leaders also were very supportive, which helped us to obtain more or less good quality of data.

2. Operationalizations and Measurements

The operational indicators to designate attributes or to measure variables included in our theoretical model (see p.10 and also Figure 1, p.11) are as follows:

1) Recipients and People in Their Community

Recipients are defined as those who have membership of Farm Land Improvement Association (FLIA), a government-sponsored and controlled water users association. Thus, those who reside in the project area but do not belong to the FLIA are not regarded as direct recipients in our study.

Characteristics of respondents including recipients such as demographic characteristics by age, sex and socioeconomic status, etc., will be presented in this section.

2) Objective Indicators

As stated earlier, objective indicators refer to environmental (physical), social or economic conditions or constraints that have some impact on the individual's activities, psychological states and overall quality of life.

a. Environmental Conditions -- Indicators of physical environment which exerts some influence or constraints on human life are included here. Examples are:

(1) Topology;

(2) Ratio of irrigated and consolidated area; and

(3) Paddy size per family.

b. Structural Conditions -- Indicators of social structure or economic structure are included here. Examples of social or economic structures are:

(1) Social stratification;

(2) Community power (leadership) structure;

(3) Community organizations;

(4) Access to outside world;

(5) Access to administrative service;

(6) Access to communication;

(7) Community isolation index;

(8) Status of the Saemaul Undong in the village;

(9) Consanguinity; and

(10) School attendence of the residents.

c. Individualistic Conditions -- Indicators of objective life conditions that are individualistic by their nature. However, some of the above mentioned structural conditions can be treated as individualistic conditions depending on how data are treated. Examples of individualistic objective indicators are:

(1) Income;

(2) Level of material possessions(living standard);

(3) Amount of debt;

(4) Membership in the formal or informal associations (e.g., membership in Gye).

(5) Level of education;

(6) Sex;

(7) Marital status;

(8) Occupation;

(9) Size of land owned or cultivated; and

(10) Number of family.

3) Subjective Indicators

Subjective indicators in this study refer to the respondent's evaluation of his or her own life and surroundings. Various social psychological states of individuals that are related to their evaluation of the quality of life and environment are also included here. As it was pointed out earlier, the measure of these subjective indicators of the quality of life is an important part in this study.

Operationalizations and measurements of subjective indicators, however, are not an easy task. Even though we have witnessed a remarkable progress in the techniques of measuring psychological attitudes in the past few decades, there is no consensus on what and how we should measure to assess quality of life or well-being of the people. This problem stems from the difficulty in both conceptualizations and techniques for the operationalizations and measurements.

For our purpose in this study we selected 16 items or areas of "social concerns" that would reflect the respondents evaluation of the quality of their life and surroundings. We asked them to rate the

present state of each of these items and the degree of change in each item that occurred during the past 5-6 year period (see Appendix B,Q. 139-171).

The sixteen items of quality of life are as follows:

(1) Transportation conditions in the community;

(2) Market facilities;

(3) Educational facilities and conditions;

(4) Medical service and facilities;

(5) The respondent's own housing conditions;

(6) The respondent's satisfaction with the family income;

(7) The feeling of rewardness in farming (work satisfaction);

(8) Hardness of farm work (farm laboring conditions);

(9) The respondent's satisfaction with his or her present life in general;

(10) Closeness among the village people;

(11) Social treatment and conditions for the aged;

(12) Public safety and order (incidents of crime and other moral problems);

(13) The respondent's satisfaction with the community;

(14) The respondent's frequency of contact (interaction) with relatives;

(15) The respondent's participations in community activities; and

(16) Leisure and recreational activities.[1/]

1/ Of course, we know that these 16 items are not exhaustive. There are many other items available that are used in other researchers' survey. However, we decided to limit life quality items to this number mainly for efficiency reasons (time and money problems) and partly because of our haste which caused us to skip important items. For example, we realized later that it was a sheer mistake to exclude an item measuring nutrition as an aspect of quality of life.

Some of these items seem to indicate the respondent's perceived environmental conditions related to his or her well-being in their local area (e.g., transportation, market, educational and medical facilities). Some others (e.g., closeness among the villagers, public safety and order, recreational activities or community participations) seem to measure the respondent's social surroundings. Still others seem to indicate the respondent's own personal life quality (e.g., satisfaction with housing, income, farming and his or her present life in general).

Intuitively, this conceptual classification of diverse items of quality of life into three categories, i.e., environmental, social (or interactional) and personal seem to have some logical basis. However, whether a researcher's logical or conceptual understanding of social reality fits the people's perception of their reality or not is an empirical problem which needs to be tested. Thus, we carried out a factor analysis of the above sixteen items.

Factor analysis is based on the assumption that a battery of intercorrelated variables have common factors running through them and that the scores of an individual can be represented in terms of these reference factors. A factor is a construct, a hypothetical entity that is assumed to underlie a set of items.[1/] In general, factor analysis consists of three major steps: (1) the preparation of the correlation matrix, (2) the extraction of the initial factors -- the exploration of possible data reduction, and (3) the rotation to a terminal solution -- the search for simple and interpretable factors (Kim, 1975:469).

The result of the first step of the data analysis is presented in the matrix of intercorrelations among the forgoing 16 items (see Table 1 in Appendix A). Also, the result of the final step of the rotation of

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1/ For further discussion, see Kerlinger, 1973, Chapter 26, 27 and 37.

factors based on the varimax method is presented in Table 2 in Appendix A. The first of these rotated factors (Factor 1) is related to Items 2 (transportation conditions), 3 (market facilities), 4 (educational facilities), and 5 (medical services and facilities), but weakly related to the rest. The second factor (Factor II) is related to Items 1 (the respondent's housing condition), 8 (hardness of farm work), 10 (satisfaction with the present income), 12 (satisfaction with farm work), and 15 (satisfaction with the present life in general). Items 5 (closeness among the residents), 13 (social treatment of the aged), 14 (public safety and order) and 16 (satisfaction with community) load highly significantly on the third factor (Factor III) and the remainder, Items 6 (interaction with relatives), 9 (recreational activities), and 11 (community participation) load significantly on the final factor (Factor IV).

The overall result of the aforementioned data analysis is more or less consistent with our conceptual classification of the life quality indicators. Items of Factor I seem to measure the respondent's perceived environmental conditions related to his or her well-being in the community. Items in Factor III and IV seem to indicate the respondent's evaluation of his or her social surroundings. Factor III, however, seems to be related more or less to structural conditions in the community whereas items of Factor IV designate the human interactional aspect in the community life. Finally, items in Factor II seem to indicate the respondent's evaluation of his or her own life quality.

To summerize, we have derived three dimensions of quality of life from the 16 subjective indicators of quality of life. These are:

(1) Environmental dimension (Items 1, 2, 3, and 4);

(2) Social structural and interactional dimension (Items 10, 11, 12, 13, 14, 15, and 16); and

(3) Individual or personal dimension (Itmes 5, 6, 7, 8, and 9).

In addition to these indicators, the following social-psychological variables which are directly or indirectly related to the subjective dimension of quality of life are included here.

(4) Social psychological variables:

1. Respondent's educational aspirations and expectations for their children
2. Respondents' occupational aspiration for their children
3. A Scale of authoritarian personality -- the scale consists of six items:
   i) Human nature being what it is, there must always be war and conflict
   ii) What young people need most of all is strict discipline by their parents
   iii) Women should stay out of politics
   iv) Most people who don't get ahead just don't have enough will power
   v) An insult to my honor should not be forgotten
   vi) Men can be trusted more than women.[1/]
4. An anomie scale consisting of
   i) Success in business and politics cannot easily be achieved without taking advantage of gullible people
   ii) These days a person does not really know whom he can count on

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1/ This authoritarianism scale is a slightly modified version of Janowitz and Marvick's (1953) Shortened F for Political Survey.

iii) Nowadays a person has to live pretty much for today and let tomorrow take care of itself

iv) In order to get ahead in the world today you are almost forced to do some things which are not right.

5. A social alienation scale that is composed of

i) There are many difficulties I cannot overcome for myself

ii) Sometimes politics and government seem so complicated that a person like me cannot really understand.

iii) Some times we are forced to do something which is really reluctant to us

iv) I'm not much interested in the TV programs and newspapers.[1/]

6. The index of community identification based on:

i) I take pride in the success of a neighbor or his/her children

ii) I'm important as a person in this community.

4) Efficiency and Process Evaluation

Although it was pointed out in the discussion of our conceptual model that several kinds of efficiency analysis can be taken, we will focus on the analysis of the organizational aspect in this study. Evaluation of financial or technological efficiency is beyond our interest and capacity. Items related to the procedual or organizational aspects of the water project are as follows:

1/ Factor analysis was used to build the above scales. For example, the above two scales, anomie and alienation are constructed from factor analysis of 12 items including the above 8 items which are commonly used to measure anomie (normlessness) or alienation.

(1) Information about the use of traditional irrigation system

(2) Management of the irrigation facilities

(3) Opinion about the irrigation fee

(4) Information about resident's participation in the project

(5) Residents' evaluation of the project in relation to community development, income change, or present adequacy of the water resource and facilities for their farming.

3. Data Analysis

Our research design is a descriptive and exploratory one in its nature based on cross-sectional analysis. Its inherent weakness is that it fails to control for many of the alternative explanations that observed changes were caused by something other than the project. Ideally, an impact study such as this should attempt to measure all the effects of water project and to identify causal linkages. It requires a complex research period from the beginning of the project (or before the project) to the completion (even a long time after the project completion). An experimental design is an ideal choice, with its random assignment of units of the analysis (i.e., sample or population) to either the experimental or control group and its measurements before and after the program.

Unfortunately, however, our research design is far from such on ideal one. As pointed out earlier, we do not have baseline data to be compared with our data collected after the project. Thus, we were in an extremely difficult position to collect information about what social changes occurred as a result of the water projects, not to mention the question of whether changes among the people and their environment were due to the project or not.

This is why we specify the nature of our research design as descriptive and exploratory rather than explanatory or hypotheses testing design. Thus, in this report we will present descriptive data to indicate the present status of the residents and communities in the project areas in comparison to that in the non-project areas based on our conceptual framework. However, based on our cross-sectional analysis we will present indicators that seem to reflect changes related to the water project directly or indirectly. Some of these data show us more or less an objective indication of change (for example, change in the size of owned or cultivated paddy land) and some others provide us with subjective indication about any change that occurred as a result of the water project (e.g., respondents' evaluation of the water project itself).

Cross-tabular analysis with percentage difference is the main statistical tool used for the presentation of the data. Cross-tabular analysis takes more space than any other analysis, but percentage differences provide us with the overall picture about the research items in the quickest way, especially to those who do not have a soohisticated statistical background.

III. GENERAL PROFILE OF RESPONDENTS AND THEIR VILLAGES IN RURAL KOREA

A. The National Setting

Korea has experienced a swift socio-economic change in recent years along with its rapid industrialization and urbanization. The national economy has grown at an average annual rate of 10 percent in terms of GNP during the period between 1962 when its first five year economic plan was launched and 1979 when it was hit again by the international oil price hike. This economic achievement, which was primarily attributable to the expansion of the export-oriented industrial sector, caused significant structural changes in the agricultural sector and rural areas in general. These changes include a continuous fall in rural population due to the migration of farmers to urban centers, and an increasing demand for non-starch food products which has encouraged farmers to shift their production emphasis from grain products to cash crops or livestock.

The Korean agricultural sector has grown at an annual rate of 4.5 percent since the early 1960s. Several factors are responsible for this growth in the agricultural sector. One is the increased application of cash inputs and improved varieties of crops due in part to changes in the demand for farm products. For example, the total consumption of chemical fertilizers increased at a rate of 7 percent per annum during the 1965-1977 period. The total quantity of agricultural chemicals used for controlling disease and insect pests expanded more strinkingly at the annual rate of 20 percent during the same period.

Furthermore, until lately the prices of grains, farm labor and arable land have gone up steadily, while that of manufactured farm inputs such as fertilizers, chemicals and machinery have moved more slowly. As a result, the change in relative prices and the induced labor-saving

technology favored an increased use of these manufactured inputs. In particular, the relatively low prices of manufactured farm inputs, the introduction of machinery and machinery using technology, and the government support for grain prices have encouraged an increase in rice production and made the beginning of the "Green Revolution" possible in Korea.

Another factor contributing to the agricultural growth was governmental policy with respect to its institutional support systems. This support has been aimed at reducing the income disparity between the urban-industrial and the rural-agricultural sectors on the one hand and maintaining self-sufficiency of food for the whole nation on the other. For example, the work and role of the Ministry of Agricultural and Fisheries' Office of Rural Development, which has experimental stations and numerous offices nationwide, has been an important contributor to the achievement of "Green Revolution" in Korea.

The land institutions have also played active roles in land resource development and improvements, particularly the land tenure system, the farmland protection system and land inheritance system. With respect to land resource development, for instance, the government has played a dominant role in large and medium scale projects including forest land reclamation, tidal land development, irrigation and drainage facilities, and farm land rearrangement. According to government statistics, 86 percent of paddy land has been rearranged so as to facilitate technological advances.

The agricultural growth along with the loss of rural population increased farm household income substantially during the period of 1962-1977. According to Table 2, the farm household income has doubled between 1962 and 1977. The farm household income consists of two sources,

Table 2. Changes in Farm Household Income

Year	GNP Deflator (1970=100)	Average Household Income (Thousand Won) Nominal Income	Real Income	Real Farm Household Income Index (1970=100)
1962	28.6	67.9	237.4	92.8
1965	52.6	112.2	213.3	83.4
1970	100.0	255.8	255.8	100.0
1975	219.9	872.9	397.0	155.2
1978	363.1	1,884.2	518.9	202.9

Source: MAF, Report on the Results of Farm Household Economy Survey, 1979
Yang-Boo Choi, "Farm Household Income Change and Its Policy Implications," in Korean Agricultural in Transition, Korea Rural Economics Institute, 1979.

farm and off-farm incomes. The latter had been kept relatively low at approximately 20 percent of the total household income until 1976 despite the remarkable industrial development, which has been attracting a large number of the labor force from rural areas. However, off-farm income started to increase substantially and generated nearly 28 percent of household income in 1977. As shown in Table 3, some of the reasons for the increase of the off-farm income may be the reduction of the rural labor force and the increasing cost of labor in rural areas due to a heavy loss of rural population. Table 3 also indicates that the proportion of farm population decreased from 58 percent to 34 percent during the period of 1960-1977.

In recent years, along with the aforementioned agricultural growth, rural people have experienced significant changes in the quality of their living environment since 1971 when the Saemaul Undong (The New Village Movement) was implemented. For example, remarkable progress has been made in the improvement of farm land, feeder roads, transportation, housing, mass communication mdeia, electrification and group farming in rural areas.

Table 3. Changes in Rural-Farm Population and Labor Costs in Rural Areas

Year	Total Korean Population (A) (thousand)	Rural-Farm Population (B) (thousand)	B/A (%)	Average Persons in Farm Household	Farm Labor Cost per Person (Won)
1960	24,989	14,559	58.2	6.20	-
1965	28,705	15,812	56.2	6.35	199
1970	31,435	14,422	45.9	5.81	579
1975	34,681	13,244	38.2	5.57	1,467
1978	37,019	11,527	31.1	5.18	3,393

Source: MAF, Statistical Yearbook of Agriculture, 1979

Table 4. Changes in the Rate of Electrification and Lengths of Roads and Bridges

Year	Rate of Electrification (%)	Transportation	
		Roads (Km)	Bridges (m)
1965	14.1	-	-
1970	27.0	12,018	40,481
1975	81.6	43,101	294,459
1978	100.0	55,420	471,651

Source: Evaluation Study on Rural Electrification Project under IBRD Loan: Evaluation Study on Rural Roads and Bridges Project under IBRD Loan, Korea Rural Economics Institute, 1978.

Table 5. Changes in Farm Household Assets, Net Income and Savings between 1963 and 1978

Classification	Unit: 1,000 Won in 1970 Prices		
	1963(A)	1978(B)	B/A
Assets	1,027	2,653	2.6
Fixed Assets	889	2,451	2.8
Liquid Assets	138	202	1.5
Liabilities	18	31	1.7
Farm Household Income	253	519	2.1
Taxes & Interested Paid	8	16	2.0
Disposable Household Income	245	503	2.1
Consumption Expenditures	215	369	1.7
Savings	30	133	4.4
Average Propensity to Save	12.2%	26.4%	

Source: MAF, Statistical Yearbook of Agriculture, 1979.

Table 4 presents data on the rate of electrification, transportation and communication items possessed by the rural farm households. It is believed that these changes have not only created better amenities for rural residents but also contributed to the modernization of agriculture through improved efficiency in production, marketing and communications. As Table 5 indicates, farm household assets nearly tripled and household disposable income doubled in real terms between 1963 and 1977. Moreover, as the farmers' consumption expenditures increased at a lower rate than their income, the farmer's saving capacity increased substantially.

It is also noticible that although the average age of the farm population increased due to the younger farmers' migration to the cities, the level of farmers' education went up during the past 15 years. As shown in Table 6, the average number of school years of farm families increased steadily for all farm classes. That of small sized farmers

under one hectare went up most significantly, narrowing the educational gap between the different classes of farm land holders.

Table 6. Changes in Average Number of Schooling Years of Farm Families by Size of Holding*

Year	Under 0.5 ha	0.5-1.0 ha	1.0-1.5 ha	1.5-2.0 ha	2.0 ha & Over	Average
1963	4.86	4.78	5.25	5.45	5.66	5.09
1975	5.69	5.73	5.90	6.45	6.61	5.88
1978	5.94	[illegible]87	6.95	6.06	6.33	6.18

* Calculated as zero is given to no schooling and not understanding Korean alphabet; 3-year is given to no schooling but understanding Korean alphabet; 6 for elementary school graduate; 9 for junior high school graduate; 12 for senior high school graduate; 16 for college graduate, and dividing the sum of schooling years by the number of family members excluding those who are under 6 years old.

Source: MAF, Statistical Yearbook of Agriculture, 1979.

B. Characteristics of Korean Rural Villages

We have just described what happened in rural areas and, in particular, in the agricultural sector in Korea in recent years. In this section let us take a look at what is happening at the village level, insofar as our sample data are able to indicate. Of course, the sample of farmers and villages in this study do not represent all the farmers and villages in rural Korea. Nevertheless, such a large scale of the village level data as ours is a very rare source of data depicting rural villages in Korea.

Korea is divided into two "special" cities and nine provinces of the largest administrative units. The nine provinces (do) include 33 cities and 138 counties or rural districts (called gun). Each of these counties consists of a county seat (eup) and averages 10 subcounties

(myon), each with an administrative office. Within each of these subcounties (myon) there are about 27 villages (ri or dong) on the average. The village is the lowest (or smallest) administrative unit in rural Korea, which is either a single natural habitat (community) or comprises a number of neighborhoods depending on settlement patterns. There are about total 36,405 villages in the nine provinces of Korea. Our survey covers 90 villages from six provinces.

In 1975 there was an average of 74 household and 389 persons per village in Korea. The average number of households in our survey area is somewhat larger than the national average. That is, there were on average 91 households and 468 persons in our sample villages in 1975. In 1980, however, the average number of households in our sampling area was only 84 households with 433 persons.[1/] Thus, our sampling villages lost about 7 households (7.8 percent) or 35 persons (about 7 percent) on average during the period between 1975 and 1980 (See Table 7).[2/]

When we examine the average number of households by project and nonproject areas, villages in the project area had an average of 93 households (out of these 76 are farm households and 17 are nonfarm households) in 1975 and 86 (71 farm and 15 nonfarm households) in 1980. Thus, the loss of households that occurred between 1975 and 1980 in the project areas was 7 households. In the nonproject areas there were on average 85 households (composed of 67 farm and 18 nonfarm households) in 1975 and 81 (62 farm and 19 nonfarm households) in 1980, thus, losing 4 households on the average in 5-year period.

1/ It should be noted, however, that a great deal of variation exists among the villages. The smallest village in our sample had only 116 households and the largest one had 310 households in 1980.

2/ As we will discuss later, however, this figure does not reflect all of those who actually moved out of their villages during the same period.

Table 7. Household Composition in Sampling Areas in Comparison to All Rural Areas, 1975 and 1980

	1975				1980			
	Project Areas	Nonproject Areas	Total Sample Areas	All Rural Areas	Project Areas	Nonproject Areas	Total Sample Areas	All Rural Areas
Number of Farm Household	76	67	73		71	62	68	
Under 0.5 ha	30%	28%	30%	30%	24%	28%	26%	30%
0.5 - 1.0 ha	38	39	38	36	36	36	36	37
1.0 - 2.0 ha	24	27	25	27	27	26	27	27
2.0 - 3.0 ha	7	6	7	5	11	9	10	5
3.0 ha and over	1/100%	1/100%	1/100%	2/100%	2/100%	1/100%	2/100%	2/100%
Non-farm Household	17	18	18		15	19	16	
Total Household	92	85	91		86	81	84	
Total Population	493	411	468		457	413	433	
Average Number of Family Members	5.3	4.8	5.1	5.6	5.3	5.1	5.3	5.4

Source: MAF, Report on the Results of Farm Household Economy Survey, 1976 and 1979.

According to the above figure, villages in the project areas lost more households or families than those in the nonproject areas. We are not sure what caused this difference. We know a few cases that some families had to move because of the water project (those households going under the water). However, this was a rare case in all the villages we surveyed. In fact, our sample data (i.e., the number of substituted interviewees for those who moved away since the completion of Duvick's survey in 1975) indicate that a little less than 7 percent of the surveyed households in 1975 migrated to other areas, mainly to large cities to seek new jobs.[1/]

Data in Table 7 also present characteristics of household composition by size of the owned land in our sampling areas in comparison to the characteristics of rural Korea in general. Similar to the national figure for the whole rural area, the largest portion of our sample households owns land in the size range from 0.5 ha to 1.0 ha in both years of 1975 and 1980.

Korea's average cultivated area per farm household was 0.87 hectares at the end of 1961. At the beginning of the 1960s the government began actively enforcing policy measures to expand cultivated land. In 1962, the Reclamation Promotion Law was enacted, and reclamation work by farmers was highly encouraged with the aid of government loans and subsidies. Stimulated by these measures, reclamation work boomed and efforts were made to reclaim mountain slopes and seashores as arable land. As a result, the cultivated area increased by 189,000 hectares from 2,049,000 hectares in 1961 to 2,222,000 hectares in 1978. With the farmland increase and the decrease of actual farm households, the average area per farm household rose to 0.99 hectares in 1976 from the 0.87

1/ As we will discuss later, however, this figure does not reflect all of those who actually moved out of their villages during the same period.

hectares in 1961.

The increase of per farm household acreage is seen even in our sampling areas over this short period. This is particularly true in the areas of the water projects, which seem to have brought out more lands available during the past five years.

Data in Table 8 provide us with other characteristics of the people and villages as a whole. Korea is geographically characterized by abundant hills and mountains, which occupy nearly 70 percent of its territory. Among the 90 villages we visited and surveyed, less than one fourth of them (24.4%) are located in plains areas and the rest are located in hilly or mountaineous areas. As far as these topograpical characteristics are concerned, there is little difference between the project and nonproject areas. This is natural because they are located basically in the same region.

The patterns of agricultural practices, however, are different from each other. The portion of paddies made in the project areas is much higher than that in the nonproject areas (55% vs. 40%). Again, this difference may indicate an effect of the water project, in part.

This finding is consistent with the proportion of irrigated paddy land. The proportion of irrigated paddy land in the project areas is 78 percent in comparison to 61 percent in the nonproject areas. As we will see later again with our respondent sample data, the larger portion of irrigated paddy area in the project areas than in the nonproject areas is a direct effect of the water project. The proportion of the consolidated area in the project areas also is twice as big in comparison to the nonproject areas (26% vs. 13%).

Traditionally, Korean rural society, like that of many other Asian countries, has been family or clan-oriented, stagnant, feudalistic, and isolated. Even though rural isolation has been reduced greatly by the recent expansion of modern transportation and mass media, a large

Table 8. Village Characteristics

	Project Villages	Nonproject Villages	Total Sample Areas
Topological Location			
Hilly Region	58	60	59
Plain Region	42	40	41
	100% (N=60)	100% (N=30)	100% (N=90)
Agricultural Pattern			
Paddy Mode	55	40	50
Mixed Mode	37	53	42
Upland Mode	8	7	8
	100% (N=60)	100% (N=30)	100% (N=90)
Paddy Land & Its Arrangement(per village)			
Total Size of Paddy	67ha(100%)	65ha(100%)	66ha(100%)
Irrigated Paddy Area	52 (78)	39 (60)	48 (74)
Consolidated Paddy Area	17 (25)	9 (14)	14 (21)
Leased Paddy Area	11 (16)	16 (25)	13 (20)
Consanguinity			
Clan Village (Type I)*	39	35	38
Clan Village (Type II)**	22	10	18
Non-clan Village	39	55	44
	100% (N=59)	100% (N=29)	100% (N=88)
Service of Village Ritual			
Done	30	31	30
Not Done	70	69	70
	100% (N=60)	100% (N=29)	100% (N=89)
Type of Election of Ri-Chief			
Appointed by Officer	5	-	3
Elected by Village Influentials	58	59	59
Elected by Voting	37	41	38
	100% (N=60)	100% (N=29)	100% (N=89)
Village Organizations (per village)			
Number of Organization (units)	8	9	8
Total Membership(persons)	284	261	276
Number of Achieve Members (leader or staff)	23	20	22

Table 8. Village Characteristics (continued)

	Project Villages	Nonproject Villages	Total Sample Areas
Educational Attainment of Household Head (persons per village)			
College or Technical College	2	1	2
High School	9	8	8
Middle School	18	12	16
Newspaper Subscription (copies per village)			
National Papers	13	13	13
Local Papers	9	9	8
Total	22	20	21

* More than 30 percent of households in a village belong to one dominant clan.

** More than 30 percent of households in a village belong to two dominant clans.

portion of rural people still lives in large families with strong indentification with relatives and clan. In rural Korea relatives mean much more than they do in many other countries. The Korean kinship concept is not limited to immediate relatives but extends to all people of the same clan, that is, those with the same family name tracing their ancesters to the same family name and the same family seat. Their given names are so devised as to indicate their relative position in the family tree.

Many Korean rural villages are still regarded as clan villages. Of course, this does not mean that many villages in rural Korea consist of only those who are from the same family tree with the same given name. There is no pure clan village in contemporary rural areas. By a clan village we mean a village where a substantial number of kins (i.e., those with the same given name from the same family tree) live together. In our research a village is identified as a clan village if more than 30 percent of residents are kins, i.e., from the same family seat with the same family name (Type I) or more than 30 percent of villages are composed of two kins (e.g., 20% Kims and 15% Parks, Type II). According to Table 8, about 56 percent of our sample villages are clan villages (38% Type I and 18% Type II). The proportion of clan villages in the project areas is much larger than that in the nonproject areas (61% vs. 45%). This might be interpreted that villages in the project areas maintain more traditional social structure than those in the nonproject areas.

As in most of the other primitive and early agricultural societies, the traditional Korean villages had a belief that supernatural spirits reside in natural forces and the animate and inanimate objects surrounding them. Thus when farmers wished for a good harvest, they held village

ceremonies which were intended to propitiate the local gods of field and forest. As the data in Table 8 indicate, we found that still a substantial number of rural villages (about 31%) held each year village rituals or ceremonies that were remains of primitive religious activities. The annual village ritual is held on January 15th of each lunar calender year which is regarded as the biggest holiday in rural Korea. We also found out that even among those villages that abolished such a traditional religious ceremony, the village people usually get together on that day and discuss various important village-wide issues and problems. This is the day, for example, the village leaders such as village chiefs (Ri-chief) and Saemaul leaders are elected in most of the rural villages.

Ri-chief is usually elected informally. Data in Table 8 indicate that the majority of the village leaders are informally elected by village influentials (59%) or informally but directly by the villagers' voting (usually by hand raising). The village chiefs are usually paid a small salary by the government. In addition, a lesser amount of contribution (usually with rice or other crops) is paid to the village leaders by the villagers themselves. This means the village leaders are not formal public officials although they take orders from an administrative organization and deliver them to the villages. Village chiefs also perform the role of reflecting the village people's opinion or requests to the government. Thus the village chiefs are important mediators of communications between the government and villagers. Furthermore, village chiefs take leading roles in most of the voluntary organizations in the village. Since the Saemaul Undong was launched in the early 1970s, several community organizations were created in most rural villages (see Table 8). Thus the village chiefs' roles have been

expanded and their leadership has become more and more significant in most of the villages.[1/] We also found out that a small number of the influentials' roles for important village issues and problem-solving are powerful and significant. These local influentials or rural "elites" are usually those with some wealth, education and good family background that has been recognized for a long time by the community. They are normally incumbents of various social positions such as the Ri-chief, Saemaul leader, head of FLIA office, co-op. administrators or other public officials. The number of these elites vary from village to village. But we can get some idea about the size of this elite group by looking at the number of adults who are regarded as more or less educated people. Figures in Table 8 show us that in our sample villages, only ten persons have a highschool diploma or post high school education. Even if we include persons with a middle school education (i.e., 9 years formal education) in the educated elite group, the group still involves a minority of the villagers.

A similar indication of the size of the village elite group may be seen in the number of households in the village who subscribe to national or local newspapers. Only 13 households (or 15%) get any kind of national newspapers and the majority of the villagers are isolated from the national matters -- political, economic and otherwise. Lately, since television has become widely available to rural residents, they have had some access to national news, although from only one television channel which is run by the government-owned television station.

Television watching, however, is one of the most important forms of recreations in rural Korea nowadays. This is understandable because

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1/ We asked our respondents who is the most influential person in their villages. Seventy five percent of them stated that the village chief is the most influential.

there are few other modern recreational facility such as a theater, museums, or music halls. Rural people used to get together in their neighbor's house and enjoyed their life through direct face-to-face conversations and interactions. Nowadays, instead of visiting neighbors most of the villagers sit around their family television set for rest and recreation.

The impact of the television set on rural people's life has not been systematically studied in Korea yet. We suspect that it has both positive and negative social impacts, but it is not difficult to believe that the impact of rapid industrialization and urbanization on rural people's life becomes significant through the television set in rural Korea.[1/] The role of the mass media, of course, is more than providing entertainment to the rural people. The media accomplishes an important educational function providing knowledge and information about agricultural improvement, health and family planning, housing and environmental improvement and inculcation of modernism-oriented attitudes and so on.

Although mass media takes the major role of linking rural people to the national scene daily, the rural villages we surveyed are still more or less isolated physically from major socioeconomic and cultural facilities. In order to identify the degree of physical isolation of our sample villages we asked the Ri-chiefs how far is their village away from major social and economic facilities. Data in Table 9 present the average distance by kilometer and time consumed to travel.

1/ Rural people were, however, exposed to mass media on the national scale long before they started to own television sets. The beginning of rural people's exposure to the national mass media was when the military regime initiated the rural amplifier in the early sixties. Although it was a fixed and one-sided communication system, it took a major role of connecting rural people with a national scale of news media until they possessed their own radios and televison sets (Kim, 1979).

Table 9. Indicators at Community Isolation from Major Socioeconomic and Cultural Facilities

	All Sample Areas		Project Areas		Nonproject Areas	
	Distance	Time	Distance	Time	Distance	Time
	(Km)	(min)	(Km)	(min)	(Km)	(min)
Primary School	3	19	2	19	5	19
Drug Store	3	29	3	28	4	31
Bus Stop	4	25	3	24	4	27
Sub-county Office	4	29	4	28	4	30
Middle School	4	33	3	32	4	35
Post Office	4	34	4	36	3	29
Extension Service St.	4	35	4	36	4	31
Agricultural Co-operative	4	35	4	36	4	31
Market	5	35	5	35	5	35
High School	7	45	3	32	4	35
Paved Road	8	38	8	34	8	46
Hospital	8	40	8	38	7	43
Railroad Station	18	60	15	56	23	68
County Office	17	79	17	79	16	79

Finally, we wanted to find out the impact of the Saemaul Undong (New Community Movement) on the improvement of housing and other aspects of the physical environment in the villages. Many writers have written about Korean Saemaul Undong and its effects on rural communities (Brandt, 1977; Kim and Kim, 1977; Lee, 1977; Kim, 1979). While the authors do not completely agree with each other about what was the overall effect of Saemaul Undong on rural villagers' life and their communities, a consensus exists about the effect of Saemaul Undong on the remarkable improvement of the physical environment in such areas as housing, roads, drinking water facilities, public housing facilities for the villagers' gathering and sanitary improvement.

One of the basic features of the Saemaul Undong, which was launched in the early 1970s to improve the income of farmers and to uplift their quality of life, was that it strongly emphasized human development and training for community development work. Financial, administrative and technical support from the government has been used judiciously for this purpose. With such training in mind, the Saemaul Undong first emphasized those projects for improving farmers' immediate living environment, followed by projects to create an economic and social infrastructure, and finally by projects to increase farmers' production and their income. At the initial stage, the government gave incentives to farmers to improve their own living environment such as improvement of roofs, kitchens and toilets.

These projects in the initial stage of the Saemaul Undong were taken mainly by individual farmers themselves. Materials required were provided by the government, partly as grants and partly as loans, but the recipients had to carry out the work in accordance with a set of standard designs. All they needed was a motivation and a desire to help themselves. At this time diligence, self-help and a cooperative spirit was the philosophical and conceptual foundation of the Saemaul Undong.

As individual farmers achieved their initial goal of improving their own immediate environment and as the individual farmer's self-help spirit was inspired, the government encouraged villagers to take up projects to create an infrastructure for increased agricultural production and other projects which would require cooperation of all the villagers. Examples of these community-wide projects were construction of small bridges, opening up farm roads for motor transport, improvement of running-water facilities, construction of small-scale irrigation facilities, village beautification, construction of village meeting halls,

and the establishment of credit unions. In most cases the government provided a small share of the finance, necessary materials, and technical guidance.

The villages that completed major projects of the community infrastructure development were next encouraged to take up income-generating projects such as group farming, common seed beds, greenhouse vegetable cultivation, livestock farming, forestation and reforestation, Saemaul Undong factories and common marketing facilities. The government provided materials, grants and loans and people put up a share of funds, labor and cooperation. As such income-generating activities require sophisticated managerial and technological skills and community people's full participation and cooperation, they were introduced step by step after the village had passed the second stage of projects intended to build a sound infrastructure and to create a cooperative spirit. This step-by-step approach is considered one important factor contributing to the success of the Saemaul Undong.

In connection to the developmental stages of the Saemaul Undong movement, in 1973 all Korean villages were classified into three categories; 1) basic (underdeveloped) villages (18,415, or 13%); 2) self-reliant (developing) villages (13,943, or 40%); and independent (developed) villages (2,307, or 7%). During our survey period we asked the village chief to rate the villages in terms of these three categories. The result of their rating is presented in Table 10. According to these data, the villages in the project areas seem to have received more governmental support for their community development along with the implementation of the water projects. More detailed data about the progress of the Saemaul projects are provided in Table 11. Again here we can see that the degree of progress of various Saemaul project in the water project areas is somewhat higher than that in the nonproject areas.

Table 10. Village Leaders' Ratings of Their Village in Terms of the Degree of the Saemaul Project Progress

	Project Areas	Nonproject Areas	Total Sample Areas
Underdeveloped Villages (Backward Villages)	5%(3)	7%(2)	6%(3)
Developing Villages (Self-Help Villages)	30%(18)	37%(11)	32%(29)
Developed Villages (Self-Reliant Villages)	65%(39)	56%(17)	62%(56)
	100%(60)	100%(30)	100%(90)

Table 11. Village Chiefs' Ratings of the Status of Various Saemaul Projects in Their Village (percent)

	All Sample Villages	Villages in Project Areas	Villages in Nonproject Areas
Roof Improvement	86	83	90
Village Hall	83	90	70
Village Warehouse	63	63	63
Sanitary Water Supply	44	38	57
Communal Retail Store	40	45	30
Sewage Improvement	40	45	30
House Improvement	21	20	23
Village Resettlement	11	12	10
Village Working Site	9	12	3
Communal Stall	6	5	7
Communal Laundry Yard	4	5	3
Public Bath Houth	4	3	7
	N=90	N=60	N=30

Table 12. Decision-Makers in Daily Affairs (percent)

	All Respondents	Residents in Project Areas	Residents in Nonproject Areas
Parents	8	7	11
Husband Only	62	60	66
Husband & Wife Togegher	19	22	15
Wife Only	8	8	6
Others	3	3	1
	100% (448)	100% (296)	100% (152)

How much would this Saemaul movement and its projects have changed the rural people's mental outlook? In a way Saemaul Undong was a social movement toward modernization of the rural villages and people. Obviously, environmental and small structural changes would not bring about a quick change in the people's attitudes or behavior. Thus, we asked our rural respondents who the final decision-maker for their daily life affairs is in the their family. We found that it is still the husband who makes a final decision for the family's daily affairs to a large extent (62%). Only 16 percent of the respondents said both husband and wife discuss and make decisions together for their daily affairs.

Table 13. Decision-Makers in Property Management (percent)

	All Respondents	Residents in Project Areas	Residents in Nonproject Areas
Parents	8	7	11
Husband Only	66	65	68
Husband & Wife Together	16	16	16
Wife Only	7	9	4
Others	3	3	1
	100% (445)	100% (293)	100% (152)

Table 14. Decision-Makers in Children's Problem (percent)

	All Respondents	Residents in Project Areas	Residents in Nonproject Areas
Parents	3	2	4
Husband Only	56	53	61
Husband & Wife Together	25	25	25
Wife Only	9	10	7
Others	7	10	3
	100% (444)	100% (292)	100% (152)

When we asked more specifically who makes the final decision regarding their property management, 66 percent responded that their husbands make the decision. Eight percent said that parents are the most important decision-makers and 16 percent claimed that both husband and wife jointly make the final decision. Even in the matter of children's education 56 percent of the respondents believe that husbands are the ones who make the final decision. In this case, however, about 25 percent of the respondents said that the husband and wife make a joint decision about their children's education.

Thus, one can notice that, if women's participation in the daily decision-making process for their family matters is an important element of the modernization, it has yet to occur in rural Korea. In fact, women's participation in many of the village matter decision-making processes is minimal in rural areas. In most of the cases, women's participation in any voluntary association is not allowed or encouraged except their participation in the Saemaul women's club activities. For example, they are not qualified to become members of the agricultural cooperative, which is supposed to be an organization for the inhancement of the farmers' welfare. In other words, rural communities still

maintain a strongly male-centered patriarchal social system. In the latter section we will present more detailed data about the mental outlook of the rural people in detail.

While many rural villages seem to maintain more or less traditionalistic social structures with some degree of physical isolation, rural resident's interactions with the outside world seems to be frequent. For example, 39 percent of our respondents said they visit cities occasionally or often. However, the most frequent interaction with outsiders occur between them and public officials who visit the respondent's village. When they were asked to respond to the question, how often public officials visit their community, the majority of them (69%) mentioned that the officials visit them occasionally or often. We also asked whether the villagers often visit public administrative office (such as county or sub-county offices), forty three percent of them said they seldom visit it and the remainder said they occassionally or often visit the office. However, a larger proportion of females said they seldom visit the administrative offices. The interaction between the villagers and urban people or public officials could be another source of stimulation that could bring about change in rural Korea.

IV. INDICATORS OF SOCIOECONOMIC LIFE CONDITIONS

In the previous section we have described the overall characteristics of the rural villages and some social aspects of village life. We will describe additional demographic and socioeconomic characteristics of the individual and related social conditions.

A. Demographic Background of Respondents

As stated earlier, we had total 540 respondents interviewed for our survey. Out of these 540 respondents 76 were Ri-chiefs and the remainder 464 were ordinary villagers. Among these 464 persons 307 were those residents who resided in the project areas and 157 were from the nonproject areas. We found out, however, that among these 157 nonproject area residents about 18 percent or 29 persons had memberships in the FLIA although they did not benefit from the AID water project. This indicates that even in the nonproject areas there exist some water facilities which are controlled by FLIA. Furthermore, this small number of FLIA members (29 persons, 18%) indicated that water facilities in the nonproject areas are smaller in scale and not numerous enough for the FLIA to extend its membership to a larger number of farmers. In comparison to this, 79 percent of the respondents who are residing in the project areas belong to FLIA, indicating that a larger portion of the project area residents are direct beneficiaries of water facilities in the project area.

Data in Table 15 present information about demographic characteristics of the respondents. According to these data, the majority of our respondents are between ages 35 and 54 (68%), males (63%) and married (95%). Most of them are farmers (97%). Also, the majority had at least an elementary school education and those who have not received

Table 15. Demographic Characteristics of Respondents, 1980

(percent)

Demographic Characteristics	Residents in Project Areas			Residents in Non-Project Areas			Total
	Member	Non-Member	Subtotal	Member	Non-Member	Subtotal	
AGE							
20-24	-	-	-	-	1.6	1.3	0.3
25-29	1.2	-	1.0	-	1.6	1.3	1.1
30-34	7.8	3.1	6.8	6.9	6.3	6.4	6.7
35-39	11.5	12.5	11.7	-	8.6	7.0	10.1
40-44	16.5	17.2	16.6	44.8	24.2	28.0	20.5
45-49	18.9	14.1	17.9	13.8	26.6	24.2	20.0
50-54	16.5	26.6	18.6	20.7	12.5	14.0	17.0
55-59	9.9	7.8	9.4	10.3	10.9	10.8	9.9
60-64	9.1	9.4	9.1	3.4	6.3	5.7	8.0
65 +	8.6	9.4	8.8	-	1.6	1.3	6.3
	100%	100%	100%	100%	100%	100%	100%
SEX							
Male	64.6	55.6	62.7	75.9	62.5	65.0	63.4
Female	35.4	44.4	37.3	24.1	37.5	35.0	36.6
	100%	100%	100%	100%	100%	100%	100%
MARTIAL STATUS							
Married	94.6	93.8	94.4	96.6	96.9	96.8	95.2
Widowed	5.0	6.3	5.2	3.4	2.3	2.5	4.3
Unmarried	-	-	-	-	0.8	0.6	0.2
Unknown	0.4	-	0.3	-	-	-	0.2
	100%	100%	100%	100%	100%	100%	100%
EDUCATION							
No Education	24.7	26.6	25.1	10.3	21.1	19.1	23.1
Seodang	3.3	1.6	2.9	6.9	3.9	4.5	3.4
Primary School	48.6	50.0	48.9	44.8	39.8	40.8	46.1
Middle School	16.0	14.1	15.6	17.2	21.9	21.0	17.5
High School	6.6	7.8	6.8	20.7	11.7	13.4	9.1
Technical College	0.4	-	0.3	-	-	-	0.2
College	0.4	-	0.3	-	1.6	1.3	0.6
	100%	100%	100%	100%	100%	100%	100%
OCCUPATION							
Farmer	97.9	87.3	95.8	100.0	97.7	98.1	96.5
Officer	0.8	1.6	1.0	-	1.6	1.3	1.1
Skilled Labourer	-	1.6	0.3	-	-	-	0.2
Agricultural Labourer	-	1.6	0.3	-	-	-	0.2
Sales	0.4	6.3	1.6	-	-	-	1.1
Others	-	-	-	-	0.8	0.6	0.2
Unemployed	0.8	1.6	1.0	-	-	-	0.6
	100%	100%	100%	100%	100%	100%	100%
	(243)	(64)	(307)	(29)	(128)	(157)	(464)

any formal education were about 23 percent of the total respondents.[1/] Comparing the project area residents with the nonproject area residents, the latter have a somewhat higher level of education than the former. This is one indication that the villages of the project were less progressed than the nonproject-area villages before the project.

In order to find out how stagnant or mobile these communities are, we checked the respondent's experience of occupational and physical mobility. We found out that about 19 percent of the respondents had experienced changing their jobs before. Some of these people were public officials before but farmers now, mostly as a result of their retirement.[2/] Some others were in sales business and are now farmers. A small portion of these people are now in sales business who were farmers before. Most of these mobilities, however, were more or less horizontal ones and a vertical mobility seems to be a rare experience for these rural people. As we will see later again in their desire for children's educational and occupational achievement, the major source of social mobility for these farmers is in their children's success or failure.

We also found out that about 32 percent of the respondents came to their present villages from other areas. Although the majority of our sample residents (91%) have lived in their present villages for more than 9 years, indicating that nowadays people do not move into rural villages and many of them instead move out of rural villages, even though in the earlier period the physical mobility could have been an important source of social change. For example, among those who moved

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1/ When we look at the respondents' level of education by sex, females' level of education is much lower than that of males. About 33 percent of the female respondents said they did not have any formal education while only 17 percent of the males reported that no formal education had been received.

2/ Low ranking public officials' retirement age in Korea is rather young, between 50 and 55 years.

to their present villages, about 23 present of them lived in Seoul or large cities and 25 percent from small cities. About 50 percent of them moved into the present villages from other rural areas, but most of these people are women who married the present village's native males.

Table 16. Family Size Distribution

Family Size	Residents in Project Areas			Residents in Nonproject Areas			Total
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	
2	1	-	1	-	1	1	1
3	1	6	2	-	2	1	2
4	5	5	5	7	6	6	5
5	13	14	13	10	17	16	14
6	22	25	23	21	24	24	23
7	21	22	21	21	22	22	21
8	18	16	18	17	12	13	16
9	19	13	17	24	16	18	18
	100%	100%	100%	100%	100%	100%	100%
	(242)	(64)	(306)	(29)	(128)	(157)	(463)

Data in Table 16 provide us with information about the average size of the family of the sample area respondents. The figures in Table 16 indicate that average number in the respondents' family is between 6 and 7 persons (or 6.7 on the agerage). Thus, one can tell that family size in rural villages is rather large in spite of a widely known success story about the family planning and birth control in rural Korea that occurred in recent years. However, the effect of successful family planning in rural Korea is seen in the following Table 17. Data in Table 17 indicate that average number of family members who are below 14 years old is about 2 and only 31 percent of the surveyed households had more than 2 children under 14 years old.

Table 17. Distribution of Number of Family Members Under 14 Years

(percent)

Persons Under 14	Residents in Project Areas			Residents in Nonproject Areas			Total
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	
0	27	22	26	14	25	23	25
1	18	25	20	18	23	22	20
2	25	25	25	25	20	21	23
3	19	17	19	25	22	22	20
4	7	5	7	14	9	10	8
5	2	6	3	-	2	1	2
6	1	-	1	4	1	1	1
9	1	-	1	-	-	-	-
	100% (243)	100% (64)	100% (307)	100% (28)	100% (128)	100% (156)	100% (463)

Table 18 Distribution of Number of Family Members Over 65 Years

(percent)

Persons Over 65	Residents in Project Areas			Residents in Nonproject Areas			Total
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	
0	68	66	68	55	71	68	68
1	24	28	25	41	23	26	25
2	7	6	7	3	5	5	7
3	-	-	-	-	1	1	-
	100% (243)	100% (64)	100% (307)	100% (29)	100% (128)	100% (157)	100% (464)

While the widely accepted family planning and birth control in rural Korea caused a decrease of the number of children in rural Korea in recent years, the number of older persons of age 65 and over has been steadily increased lately. Although this is a nationwide trend in Korea, the proportion of older persons in rural Korea, in particular, has been growing faster than that in urban areas mainly due to the loss of younger people in rural areas as a result of their migrations to city areas. According to Table 18, 32 percent of the total households we

Table 19. Distribution of Number of School-Age Family Members Who Have Migrated for Schooling

(percent)

Number of Persons	Residents in Project Areas			Residents in Nonproject Areas			Total
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	
0	76	81	77	71	73	72	76
1	15	13	14	11	17	16	15
2	6	6	6	11	6	6	6
3	1	-	1	7	4	5	2
4	2	-	1	-	-	-	1
5	-	-	-	-	1	1	-
	100% (237)	100% (64)	100% (301)	100% (28)	100% (128)	100% (156)	100% (457)

Table 20. Distribution of Numbers of Family Members Who Have Migrated for Employment

(percent)

Number of Persons	Residents in Project Areas			Residents in Nonproject Areas			Total
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	
0	45	48	45	59	56	57	49
1	26	25	26	28	23	24	25
2	21	17	20	10	16	15	18
3	6	8	6	3	4	4	5
4	3	2	2	-	2	1	2
	100% (238)	100% (64)	100% (302)	100% (29)	100% (128)	100% (157)	100% (459)

surveyed had at least one-older person and about 7 percent of the households had more than one older persons.

To what degree do the rural young people move out of their home in the rural areas? Data in Table 19 and 20 give us a rough idea about this question. Figures in table 19 indicate that about 24 percent of the rural families have at least one child who is away from his or her rural home for schooling in urban areas. Table 19 also shows us that the portion of children who are away for their education is higher in the

nonproject area villages than in the project areas, suggesting that here again people in the nonproject areas are better off than those in the project areas. Among the four groups in Table 16 the highest portion of children away from their home for schooling is found in the third group (FLIA members in the nonproject areas) and the lowest percentage is for the second group (nonmembers of FLIA in the project areas). This suggests that FLIA members in the nonproject areas are the most affluent (thus can afford to send their children to urban areas for schooling) and nonmembers in the project areas are most deprived people. Comparing FLIA members in the project areas with those in the nonproject areas, again we can tell that the latter group is better off than the former. This difference may be from the fact that the nonproject FLIA members had their membership for longer time (i.e., benefited for a longer time from the water facilities) than the project area members who gained their FLIA membership only recently. The most deprived group of the respondents are those who do not belonging to FLIA in the project areas. This group is excluded from FLIA either because they are landless or own the land that has gifted access to the natural water resource, or their land is geographically out of reach from the water facilities.

Somewhat consistent with the above findings, Table 20 shows us that the portion of those who are away from their family for employment is higher in the project areas than that in the nonproject areas (55% vs. 43%). Again, this indicates that villagers in the project areas were more deprived than those in the nonproject areas at least until better water facilities became available in recent years. However, the effect of the water project on the migration of the villagers in the project areas is yet to be seen. The data in Table 20 also suggest that a substantial number of young people are away from their rural families for an employment purpose in the urban area.

Table 21. Distribution of Educational Attainment of the Eldest Son

(percent)

Level of Education	Residents in Project Areas			Residents in Nonproject Areas			Total
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	
No Education	1	-	1			1	1
Traditional School (Seodang)	3	-	2			1	2
Elementary School	21	12	20			16	19
Middle School	24	37	26			20	24
High School	39	43	40			40	40
Technical College	6	3	6			5	5
College or Univ.	6	3	6			17	10
	100%	100%	100%			100%	100%
	(142)	(32)	(174)			(86)	(260)

Table 22. Distribution of Occupations of the Eldest Son

(percent)

Types of Occupations	Residents in Project Areas			Residents in Nonproject Areas			Total
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	
Farmer	29	32	30	22	22	22	28
Officer	8	13	9	-	5	5	7
Teacher	3	3	3	-	2	2	2
Clerical	20	19	20	11	17	16	19
Skilled Industrial Worker	10	10	10	22	10	12	11
Unskilled Factory	15	10	14	11	29	27	18
Sales	8	3	7	33	-	5	7
Others	2	7	3	-	3	3	3
Unemployed	5	3	5	-	10	9	6
	100%	100%	100%	100%	100%	100%	100%
	(119)	(31)	(150)	(9)	(58)	(67)	(217)

Data in Table 21 and 22 present the level of education of the respondent's eldest son and his occupation. According to Table 21, more than half of the eldest sons have at least a high school diploma, which indicates a remarkable progress in younger people's education in rural

Korea. Here again, the educational level of the eldest sons in the nonproject areas is higher than that in the project areas. As pointed out earlier, the remarkable degree of increase in the level of the eldest sons' education is the major source of upward social mobility for the farmers. It might be added that this intergenerational mobility is an important factor causing social change in rural Korea.

Perhaps a better and more direct indicator of social mobility is in the types of occupations taken by the respondents' eldest sons. According to Table 22, only 28 percent of the total number of eldest sons are farmers and the rest are either factory workers, white collar workers or others. Twenty nine percent of them are white collar workers (public officials, teachers, and other clerical workers) and 9 percent are in sales business or others. Skilled and unskilled factory workers account for about 29 percent of these people, which indicates a significant impact of urbanization and industrialization on rural families in Korea.

When we compare the four groups of our sample, again we can see that a higher degree of upward mobility is seen in the nonproject areas (especially in the third group of FLIA members in the nonproject areas) than in the project areas. Interestingly, however, the highest portion of white collar workers is seen among the nonmembers' sons in both of the project areas (36%) and nonproject areas (24%). This may be so because many of the nonmembers were either landless or had a small amount of land and thus their sons could not expect to inherit any profitable portion of land.

The above findings about the respondents' demographic background seem to indicate some important facts about the recipients or nonrecipients in the rural villages we surveyed. First, we found out that a small number of FLIA members in the nonproject areas are better off than any

other group members. That is, those farmers who belonged to FLIA and thus benefited from better water resources from an earlier time are the most well-to-do farmers as we will see later again in the economic indicators of these people.

Second, people in the nonproject areas as a whole seem to be better off than those in the project areas. They are somewhat younger, better educated and could afford a better education for their children than those in the project areas. This implies that the villagers in the water project areas were more deprived earlier than those in the nonproject areas. As far as the demographic characteristics are concerned, the effect of the AID water project will have to be seen in the future.

Thirdly, comparing the FLIA members with the nonmembers in the project areas, the former is slightly younger than the latter although there is not much difference in other demographic characteristics. However, as we will see in the following section, the FLIA members are a little better off than those nonmembers in the project areas. At this time it may suffice to say that the age difference leads us to expect to find the fact that the direct recipients of the water project were better off than the nonmembers before the project. This means the recipients of the water project were not those who were the most deprived poor people in the project villages before the project.

Finally, the fact that the FLIA members from the nonproject areas are better off than any other group suggests that the socioeconomic discrepancy between the FLIA members and nonmembers in the project areas will be widened unless some measures to prevent this are taken in the near future.

B. The Socioeconomic Characteristics of Individual Life Conditions

Some of the individual characteristics such as age, sex, marital status, occupation, number of the family members and the level of education, etc., were described in the previous section. In this section we will present data regarding other socioeconomic characteristics or life conditions of the individual respondents.

Figures in Table 23 present information about the size of paddy land owned by our respondents classified by members and nonmembers and by project and nonproject areas. Consistent with the findings in the previous section, the portion of the landless farmers is highest in Group II (the nonmembers of the project areas, 22%) and lowest in Group III (the FLIA members in the nonproject areas, 3%). When we combine the landless with those with less than 0.5 ha paddy land, still the largest portion (52%) of these people is found among Group II (the nonmembers in the project areas). To put it differently, the farmers owning the smallest piece of paddy land are the nonmembers in the project areas (average .68 ha) and the FLIA members of the nonproject areas (Group III) own the largest pieces of land (average 1.10 ha).

Here again the implication is clear. In the project areas those who do not belong to FLIA are poorer than the FLIA members (although the former is a smaller portion, about 21% of the total farmers). However, we suspect that this finding is not a consequence of the water project. Rather this is based on the fact that the nonmembers were either landless or owners of a small amount of land even before the project. These people have been excluded from the FLIA membership because they either did not own any paddy land or their land was not located within easy reach of the new water facilities.

Table 23. Distribution of Owned Paddy Land by Size

(percent)

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Total
Landless	7	22	10	3	14	12	11
Less than 0.5 ha	22	30	24	31	28	29	25
0.5 - 1.0 ha	38	20	35	17	27	26	32
1.0 - 1.5 ha	21	16	20	24	20	21	20
1.5 - 2.0 ha	5	9	6	3	5	5	5
2.0 ha & over	6	3	6	21	6	8	7
	100%	100%	100%	100%	100%	100%	100%
	(243)	(64)	(307)	(29)	(128)	(157)	(464)

Table 24. Distribution of Paddy Land Owned 5-6 Years Ago by Size

(percent)

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Total
Landless	9	17	10	14	13	13	11
Less than 0.5 ha	25	28	25	21	31	29	27
0.5 - 1.0 ha	34	22	32	21	27	26	30
1.0 - 1.5 ha	21	25	22	24	19	20	21
1.5 - 2.0 ha	7	6	7	7	3	4	6
2.0 ha & Over	5	2	4	14	7	8	6
	100%	100%	100%	100%	100%	100%	100%
	(243)	(64)	(307)	(29)	(128)	(157)	(464)

Next we wanted to find out if there was any change in the size of paddy land owned by the respondents in the period before the water project and after the implementation of the project. We simply asked our respondents how much paddy land they owned 5-6 years ago. The response to this question is presented in Table 24. By comparing the data in Table 23 with that in Table 24, i.e., comparing the proportions of farmers who own more than one ha of paddy land between 5-6 years ago and now, we can get some idea about what change occurred during the 5-6 year period. Among the four groups, Group III (the FLIA members of the

nonproject area) gained the largest piece of paddy land (1.4 ha) and Group I (the FLIA members of the project areas) gained a much smaller piece of paddy land (0.2 ha) during the same period. In contrast to this, the farmers of Group II (the nonmembers of the project areas) lost on average some of their paddy land (0.3 ha). Looking at this trend from a different angle, we can see that about 17 percent of the Group II farmers were landless 5-6 years ago and 22 percent this year, showing a 5 percent increase in the number of landless farmers during the 5-year period. In comparison to this, about 9 percent of the members in the project areas (Group I) were landless 5-6 years ago and about 7 percent are landless at this time, thus indicating a 2 percent decrease in the portion of landless persons in this group. Again the most favorable change occurred among the third group (members in the nonproject areas); an 11 percent decrease in the portion of the landless during the some period.

Table 25. Distribution of Owned Upland by Size

(percent)

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Total
Landless	24	30	25	21	23	22	24
Less than 0.5 ha	56	44	53	52	49	50	52
0.5 - 1.0 ha	14	16	15	24	23	23	18
1.0 - 1.5 ha	5	8	5	3	6	5	5
1.5 - 2.0 ha	1	2	1	-	-	-	1
2.0 ha & Over	-	2	1	-	-	-	-
	100%	100%	100%	100%	100%	100%	100%
	(243)	(64)	(307)	(29)	(128)	(157)	(464)

Table 26. Distribution of Upland Owned 5-6 Years Ago by Size

(percent)

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Total
Landless	21	30	23	28	22	23	23
Less than 0.5 ha	59	44	56	48	47	47	53
0.5 - 1.0 ha	15	16	15	21	22	22	18
1.0 - 1.5 ha	5	8	5	3	8	7	6
1.5 - 2.0 ha	1	2	1	-	1	1	1
2.0 ha & Over	-	2	-	-	1	1	-
	100% (243)	100% (64)	100% (307)	100% (29)	100% (128)	100% (157)	100% (464)

What caused such changes? We suspect that some of these changes occurred as a result of the water project and some other changes occurred as a mere transaction between the owners. According to data in Table 25 and 26, farmers who do not own any upland this year account for about 24 percent in the Group I (the FLIA members in the project areas). The proportion for these farmers with no upland was about 21% in the same group 5-6 years ago, thus, about 3 percent of the farmers who are the FLIA members in the project area lost their upland during the 5-year period. This trend is also seen in the change of the average size of the upland owned by each household. The Group I farmers lost average 0.7 ha of upland during the same period. Probably most of this change was caused by the water project which helped farmers to convert their upland to paddy land. In fact, some of our respondents reported that they gained some paddy land which was converted from the upland as water become available from the new water facilities.

How about those who lost some or all of their paddy land in the past few years? As we pointed out already, some farmers belonging to the Group II (the nonmembers of the project areas) lost their paddy land

(i.e., about 5 percent increase of the landless), others in the same group lost part of their paddy land, and a few gained more land. But overall, this group lost about 0.3 ha of paddy land on average during the past 5-year period. Could this decrease also have occurred as a result of the water project? The writer suspects that this decrease of the paddy land among the second group was not caused by the water project but happened as a result of transactions of the ownership to secure cash for other purposes than farming. The data in Table 27 support this opinion.

Table 27. Reason for the Decrease in Land Holdings

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Total
Low Profitability	-	17	4	25	-	4	4
Labor Shortage	13	-	10	-	17	15	12
Living Expenses	8	-	6	25	9	11	8
Educational Expenses	29	42	32	25	35	33	33
Medical Expenses	8	8	8	-	13	11	9
Family Ritual Expenses	8	8	8	25	-	4	7
Establishment of Stem Family	3	-	2	-	4	4	3
Others	32	25	30	-	22	19	26
	100%	100%	100%	100%	100%	100%	100%
	(38)	(12)	(50)	(4)	(23)	(27)	(77)

Table 27 presents the farmers' response to the question of why they lost their land. The largest proportion of the answers is found in the category of response that children's education was the reason to sell their land. Among the four groups, about 42 percent of the Group II farmers (the nonmembers in the project areas) said that they had to sell their land to secure expenses for their children's education. This finding is not surprising considering the fact that, as we will see later

again, farmers and especially low-income farmers have very high aspirations for their children's education. We have already pointed out earlier that the major source of social mobility (i.e., upward mobility) for the farmers is their children's education. We also found out that the non-members (the less affluent farmers than the FLIA members) produced more white-collar workers out of their eldest sons than those more affluent FLIA members.

Education is the most important reason for selling land for all of the four groups. Other important reasons for selling land are labor shortage (12%), medical expenses (9%), living expenses (8%) and expenses for family rituals such as wedding and funerals (7%). The labor shortage in the rural areas was mentioned by many of our respondents. This problem is a direct impact of urbanization and industrialization which caused a large portion of rural young people to move to urban areas. Medical expenses have also been a heavy burden to the rural people who are excluded from any benefit from the modern medical insurance. As we will see later again, majority of our respondents pointed out that medical facilities are poor, or rather nonexistent in their villages at the present time. Another important reason for reducing their property among the farmers is to secure expenses for their family rituals.

Traditionally, rural Koreans (and urban people, too) spent a substantial amount of money for their family rituals mainly because it is a symbol of the family's status. In the early period of the last decade, however, the government passed a new law restricting the family's spending for their rituals related to the family member's wedding, funeral, ancestors worship, ceremonies for the 60th birth day of the elderly, and so forth. This new law with an extensive social campaign to simplify traditional rituals and to reduce financial waste was largely

successful. As a result, nowadays family rituals are much simpler and frugal. Despite this national trend, however, our data indicate that still some of the rural families reduce their lands just to pay for their traditional rituals and ceremonies.

Next, what is the status of the family income among the rural residents? Did the water project have a direct and positive impact on the rural family's income? While the second question is a difficult one for us to answer, by looking at the income status of the four groups we may be able to get some rough idea about the impact of the water project on it.[1/]

Table 28. Distribution of Family Annual Income

(percent)

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Total
Under 50 Thousand won	6	10	7	4	7	7	7
50 - 100	17	20	18	16	21	20	19
100 - 150	27	20	26	16	18	18	23
150 - 200	15	12	15	12	12	12	14
200 - 250	16	18	17	20	17	18	17
250 - 300	4	5	4	8	7	8	5
300 - 350	7	8	7	4	11	10	8
350 - 400	2	2	2	12	1	3	2
400 & Over	5	5	5	8	5	5	5
	100% (228)	100% (60)	100% (288)	100% (25)	100% (122)	100% (147)	100% (435)

1/ We found out that it is difficult to get accurate information about the respondent's family income of 5-6 years ago. The information obtained from the respondents' memory is unreliable although we can get their overall assessment about their income change in the past 5-6 year period. Better information of the income change can be obtained from other research teams' work carried out by Duvick, Morrow or Stein. Their work will be published in the near future.

According to data in Table 28, again the members of Group III have the highest income and the Group IV members earned the least amount of income during the year of 1979. Comparing Group I with Group II in the project areas, the data show us that the former earns a little more than the latter, indicating that the FLIA members seem to benefit more from their new water facilities than the nonmembers. Although this difference of income between the two groups could be result from the difference of the size of land owned between the two groups, an important fact is that the majority of the farmers (79%) became FLIA members as a result of the AID water project. Also, the Group I farmers had a higher income than those of the Group IV who are the majority of their villages (85%). Put differently, the fact that the majority of the farmers (Group I, 79%) in the water project areas had a higher income than the majority of the farmers (Group IV, 85%) in the nonproject villages indicates that the water project had a positive impact on family income.

Table 29. Household Items Possessed by Respondents, 1980

(percent)

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Total
TV Set	89	78	86	100	84	87	86
Rice Cooker	64	55	62	66	66	66	63
Electric Iron	59	53	58	66	60	61	59
Electric Fan	59	59	59	59	54	55	58
Tape Recorder	19	20	20	21	28	27	22
Phonograph	12	13	12	28	21	22	15
Refrigerator	9	20	11	28	17	19	14
N	243	64	307	29	128	157	464

Table 30. Change in Household Items Ownership in Rural Areas, 1970 to 1980

(percent)

	1970[1/]	1975[2/]	1976[3/]	1977[3/]	1978[3/]	1979[4/]	1980[5/]
TV Set	1	16	30	44	63	64	86
Electric Iron	-	-	-	-	-	50	59
Electric Fan	-	18	18	24	46	48	58
Rice Cooker	-	-	-	-	-	47	63
Tape Recorder	-	-	3	4	11	13	22
Phonograph	4	7	12	14	17	12	15
Refrigerator	0.5	1	1	2	4	6	14

1/ National Bureau of Statistics, Economic Planning Board, 1970, Population and Housing Census Report.

2/ National Bureau of Statistics, Economic Planning Board, 1975, Population and Housing Census Report (5% Sample Survey).

3/ Ministry of Agriculture and Fisheries, 1949, Annual Report of Agriculture in Korea.

4/ In-Joung Whang, et al., 1979, The Integrated Rural Development in Korea, Korea Rural Economics Institute.

5/ Surveyed sample (N=464).

A similar trend is seen in Table 29 which presents information about household items possessed by the rural farmers. Among the household items the most popular and widely spread item among the farmers is the television set. This item is owned by 86 percent of the total respondents. Again, the data indicate that Group III members are the most affluent farmers and the Group II respondents are the least. Comparing the respondents of the project areas with those of the nonproject areas, the majority of the farmers in the project areas (243 persons or 79% of the total residents) seem to be materially better off than the majority of the respondents in the nonproject areas (128 persons or 85% of the respondents). Thus, if we judge the level of living of the respondents by the proportion of TV sets owned by them, we might conclude that the water

project has upgraded the living standard of the majority of the farmers in the project areas.[1/]

The improvement of the living standard among the rural people in terms of their possession of the household items occurred rapidly in the most recent years. In fact, the majority of the rural people did not own television sets or other electric household items by 1975. As data in Table 30 indicate, only about 20 percent of the Korean rural residents owned television sets in 1975 although about 82 percent of the rural communities had electricity by that year (see Table 4).

Table 31. Total Amount of Debt

(percent)

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Tota
None	27	33	28	17	23	22	26
Under 50 Thousand Won	32	34	33	21	26	25	30
50 - 100	16	13	15	17	19	19	16
100 - 150	13	13	13	21	17	18	14
150 - 200	2	3	2	17	2	5	3
200 Thousand & Over	10	5	9	7	13	12	10
	100%	100%	100%	100%	100%	100%	100%
	(243)	(64)	(307)	(29)	(128)	(157)	(464)

Data in Table 31 exhibit a different picture about the economic conditions of the respondents. About 74 percent of our rural respondents have some degree of debt. The smallest amount of debt on the average is found among the Group II members but this is so probably because they

1/ Notice that the largest percentage of the respondents owning refrigerators is found among the Group II people (the nonmembers of the project areas). This is so probably because about 6 percent of the Group II respondents are engaged in sales work such as groceries or other small stores. During our research, however, the writer did not find any household's refrigerator that kept animal protein food such as meat or fish.

simply could not afford a large sum of debt. In fact, the largest portion of families who claim that they do not have any debt is found among the second group (the nonmembers in the project areas). We have seen already that this is the group that is most deprived among the four groups.

Table 32. Reason for Debt (The Largest Stem)

(percent)

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Total
Living Expenses	9	16	10	4	7	7	9
Farming Cost	64	35	58	61	60	60	59
Educational Expenses	12	9	11	13	9	10	11
Medical Expenses	1	5	2	4	3	3	2
Purchase of Farm Machines	4	12	5	-	4	3	5
Purchase of Farmland	2	2	2	4	3	3	3
Family Ritual Expenses	3	2	3	4	2	3	3
Land Consolidation	1	-	1	-	-	-	1
Others	4	19	7	9	11	11	8
	100% (180)	100% (43)	100% (223)	100% (23)	100% (98)	100% (121)	100% (344)

The main reason why we wanted to know about the amount of debt was to find out if the farmer's debt was enlarged as a result of the water project. Thus, we asked the respondents what was the main reason for their present debt. Data in Table 32 present the responses. The majority (59%) of them said farming expenses were the major cause of their debt. The next important reason was to secure educational expenses for their children (11%). We pointed out earlier that some farmers had to sell their land to send their children to schools. We found out, however,

that most of the farmers were unaware of how much they owe to the government as a result of water project. As we will see later again, many of the FLIA members complained that their water fee paid to their local FLIA office is too high without knowing what portion of the water fee they pay was for their debt to the government.

Next we asked to whom they owe their debt. The majority (75%) said that their loan is coming from their local agricultural cooperative office. However, about 65 percent of the respondents said that the major source of smaller amount of loan is their neighbors. In this case they have to pay much higher interest to their private creditor than to the agricultural cooperatives or other banks.

Table 33. Numbers of Membership in Gye

(percent)

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Total
0	27	22	26	26	27	27	26
1	40	32	39	30	36	35	37
2	23	15	22	26	26	26	23
3	5	15	7	19	5	8	7
4	3	10	4	-	3	3	4
5 & Over	3	5	3	-	2	1	3
	100%	100%	100%	100%	100%	100%	100%
	(229)	(59)	(288)	(27)	(118)	(145)	(433)

In rural Korea, however, there is a long and presistent tradition of cooperative efforts in the socioeconomic spheres. For example, several types of voluntarily formed multi-aid cooperatives exist for social and economic cooperations among the villagers. These are called Gye. We found out that only 26 percent did not belong to any type of Gye and the majority had membership in at least one Gye in their village. As data in Table 33 indicate, a little less than 40 percent of the respondents

belong to two or more Gye indicating that Gye is still the most popular informal organization through which rural people save money or help each other.

So far we have presented data regarding some of socioeconomic characteristics of the individuals and their life conditions. Socio-economic status (SES), however, is a relative social position that indicates where an individual or his/her family members are located in the system of social structure. Thus, we may assess one's SES in terms of his/her income, education or occupation, or an index combining these factors in relation to other members of the community. We, however, run into a problem when we want to assess one's SES in terms of such objective indicators. The trouble is finding a cutting point to determine who belongs to the group of upper status and who belong to middle or lower class.

Thus, a solution to this problem may be to take the subjective assessment of the respondents' themselves regarding their SES in the community. For example, when we ask respondents what stratum they think they belong to, they might give us a subjective assessment of their relative ranking in terms of their level of income, education, occupation or other subjective criteria in comparison to the other people of their community or society in general.

Table 34. Subjective Evaluation of SES in the Village

(percent)

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Total
Upper	14	19	15	25	13	15	15
Middle	65	48	61	57	59	59	60
Lower	22	33	24	18	28	26	25
	100%	100%	100%	100%	100%	100%	100%
	(243)	(64)	(307)	(28)	(128)	(156)	(463)

The figures in Table 34 provide us with the data regarding the respondents' subjective evaluation of their social status. The findings from this table are more or less consistent with those given by other objective indicators of the socioeconomic characteristics of the respondents discussed earlier. The largest percentage of the respondents who claim they belong to the group of upper status in their community is found among those of Group III. However, when we compare Group I with Group II, a smaller portion of the FLIA members state that they are the people of upper status than the nonmembers of in the project areas. This finding may look somewhat inconsistent with earlier findings that the Group II people are the most deprived people. But we can see that this finding is deceiving when we compare those who believe they belong to the groups of the lower stratum. In this case, it is the nonmembers of the project areas (Group II) who claim that the larger portion of them belong to the lower status group than any other group members.

When we look at the middle SES category, again the picture is clear. That is, 65 percent of the Group I members claim that they are the people of the middle SES and 49 percent of the Group II people believes that they are those of the middle SES group. Comparing Group I with Group IV, the FLIA members of the project areas evaluate their socioeconomic status a little more positively than the nonmembers of the nonproject areas.

Data in Table 34, however, provide us with interesting and important information about the nature of social structural conditions in rural Korea. Discarding group differences, 25 percent of the respondents regard themselves as having lower status, 15 percent believe they belong to the group of higher status and the rest (61%) said they are middle class people in their villages. Thus, the majority of the rural

residents feel that they are somewhere in the middle of the social stratum system, suggesting that rural Korea has achieved a more or less stable social structure in recent years. Many scholars pointed out that an absence of a stable and significant middle class could bring about polarization of the people into two conflicting groups, i.e., the haves and the have-nots in a society that maintains a capitalistic economic system (Marx, 1973). In the rural areas we surveyed, almost a half of the most deprived group of people (48% of the nonmembers of the project areas) feel that they belong to the group of the middle SES in their communities.

Many factors may be responsible for the emergence of such a stable social structure in rural Korea. The early 1950's Land Reform Act that turned most of the Korea's cultivated land over to the family actually cultivating it and reduced the number of tenants or landless farmers to a miniscule 5 to 7 percent of the total farmers may be responsible to this. Also, according to the law, no farm family can own paddy land bigger than 3 hectares as we pointed out earlier.

Another factor responsible for the achievement of some degree of economic equity may be the government price policy for agricultural products, in particular, rice and barley. That is, the government implemented a double-price policy to guarantee a stable income for farmers. But it has been asserted that this policy was implemented to protect urban consumers rather than rural farmers (Ban, Moon and Perkins, 1980).

Still another factor may be various community development projects and the Saemaul movement. As was mentioned previously, the government was to a large extent successful in mobilizing unused rural labor for the improvement of the rural environment and to increase farm production.

Whatever may have caused the aforementioned stable social stratification system, data in Table 35 indicate that the gap between the rich and the poor has been reduced and the proportion of middle class farmers has increased during the past 5 to 6 year period. According to the figures in Table 35, 16 percent of the residents believed they were people of upper status, 53% were in the middle and 31% in the lower status 5-6 years ago in comparison to 15% upper status, 61% middle status and 25% lower status in 1980 (See Table 34).

Table 35. Subjective Evaluation of SES in the Village (5-6 Years Ago)

(percent)

	Residents in Project Areas			Residents in Nonproject Areas			
	Member	Nonmember	Subtotal	Member	Nonmember	Subtotal	Total
Upper	16	16	16	28	13	16	16
Middle	56	52	55	45	51	50	53
Lower	29	33	30	28	35	34	31
	100%	100%	100%	100%	100%	100%	100%
	(243)	(64)	(307)	(29)	(127)	(156)	(463)

Of course, this does not mean that the discrepancy between urban dwellers and rural residents has been reduced in terms of income or other socioeconomic status. What our data suggest is that the larger portion of rural farmers now identify themselves as people of the middle SES group within their rural communities.

When we compare the four groups of our respondents, about 7 percent of the Group I people, 10 percent of the Group III members and 7 percent of the Group IV moved up to higher status from lower status. The Group II people are the only ones who did not show upward mobility, indicating that those who do not belong to FLIA in the project areas are the most deprived people.

On the whole, our data indicate a meaningful trend in that the majority of the residents residing in the AID project areas became better off during the past 5-6 year period possibly as a result of the water project if only in part. However, there is a dark side. About one third of the nonmembers (33%) in the project areas regarded themselves as those of the lower status in their community a few years ago and this portion remains the same this year. This suggests a trend for the socioeconomic gap between the FLIA members and the nonmembers to increase in the project areas unless some measures to prevent this are taken in the future. We have already seen that the socioeconomic gap (in terms of both objective and subjective indicators) between a small number of the FLIA members and the majority of the residents who do not belong to their local FLIA in the nonproject areas is substantial.

V. SOCIAL-PSYCHOLOGICAL AND SUBJECTIVE INDICATORS OF FARMERS' LIFE QUALITY AND ITS CHANGE

Subjective indicators in this study refer to the respondent's evaluation of his or her own life and surroundings. Various social psychological states of individuals that are related to the quality of life and environment are also included here.

A. Perceived Quality of Life and Its Change in Rural Village

As was stated earlier, for our purpose in this study we selected 16 items or areas of "social concern" that would reflect the respondents' evaluation of the quality of their life and surroundings. We asked them to rate the present state of each of these items and the degree of change in each item that had occurred during the period of the past 5-6 years. Before we analyze these data by region (Project vs. nonproject areas) and other background variables (age, sex, and SES), we will present here an overview of perceived quality of life and its change in the rural villages we surveyed.

Table 36. Subjective Indicators of Quality of Life and Its Change

	Positive Evaluation of the Present Status		Positive Evaluation of Change	
	Villagers	Chiefs	Villagers	Chiefs
Closeness among Villages	95%	95%	38%	41%
Public Safety and Order	90	91	33	36
Community Participation	81	97	49	67
Contact with Relatives	76	78	43	43
The Conditions of the Aged	73	67	59	54
Overall Community Satisfaction	72	64	90	87
Educational Facilities	59	55	65	67
Transportation Conditions	54	47	70	66
Market Facilities	52	46	58	55
Work Satisfaction	51	49	33	37
Housing Conditions	48	50	54	49
Overall Life Satisfaction	37	34	67	64
Leisure and Recreation	33	37	27	25
Hardness of Farmwork	21	24	52	53
Medical Service and Facilities	17	12	36	32
Income	17	21	49	54
	N=463	76	N=463	76

Table 36 contains residents' and village chief's responses to the question of what the present state of their quality of life is and what changes have occurred in their quality of life in terms of the 16 items during the past 5-6 year period. The most satisfactory item of the quality of life indicators is the degree of closeness (or extension of friendly help) among the villagers at present. Next most satisfied items are public safety, community participation, interaction with relatives, life conditions for the elderly, educational facilities, transportation and market facilities. There is not much difference in responses to these items between the villagers and their leaders except for one of the items, community participation, which is most positively evaluated by the leaders. This is understandable considering the fact that one of the village chief's roles is to promote villagers' participation in various community activities.

The above quality of life indicators show how the respondent's perceived environmental conditions or social surroundings relate to his or her well being in the local area. Thus, on the whole, 72 percent of the villagers expressed satisfaction with their community environment and a somewhat smaller portion of the village chiefs (64%) manifested their feeling of satisfaction with their communities.

The respondents said they are least satisfied with medical services and facilities in their community and their present family income. Only 17 percent of the villagers expressed happiness with the present income status. However, almost a half of them (49%) believe that their income status has got better in recent years. Similarly, only 21 percent of the village chiefs said they are satisfied with their present family income while 54 percent of them believes that their income status has improved during the past few years. Satisfaction with farm work is

also not high considering the fact that only about a half of the respondents (51% of villagers, 49% of village chiefs) expressed feeling of satisfaction with their occupational work. Housing conditions are still regarded as inadequate by many farmers despite the Saemaul movement that has helped farmers to upgrade the quality of their housing. In fact, 54 percent of the villagers and 49 percent of the village chiefs believe that their housing is more convenient now than 5 to 6 years ago.

The modern concept of leisure and recreation is alien to many of the rural farmers. Although they enjoy a few days of the nationwide holidays such as Choosuhk (a sort of Korean version of thanksgiving day celebrated on August 15 in the lunar calendar) and the new year holiday and traditional games or recreations during these holidays, they hardly benefit from modern recreational facilities that are enjoyed by most urban dwellers. While this trend is common among farmers in many other countries, Korean farmers do not seem to be satisfied with the leisure and recreational aspects of their life. Only 27 percent of the farmers and 25 percent of the village leaders believed that the recreational aspect of their life had got better in the past few years.

Still a large number of farmers (79%) and their leaders (76%) complained th. t they suffer hardships because of their farm work although more than a half of them feel that their farm work had got easier lately. On the whole, the majority of the respondents seem to be satisfied with the environmental and communal aspect of their life except for medical facilities and they are less happy with the personal aspects of their life such as housing, leisure and recreation, farmwork and income. Thus, less than 40 percent of the respondents (37% of the villagers and 34% of their leaders) expressed a sense of overall satisfaction regarding their personal life. However, although over 60% of the rural

respondents did not show any sense of satisfaction about their present life, the majority of the respondents (67% of villagers and 64% of leaders) expressed that their overall life condition had become better and thus they are more satisfied with their life now than before.

B. Difference between Beneficiaries and Non-beneficiaries in Quality of Life

Earlier we stated that the major goal of our research is to assess the effects of the AID's water project on rural people, especially those who benefit from the project and their villages. In order to meet this goal, our sample was divided into four groups: (1) the FLIA members in the project areas (Group I: these are direct beneficiaries of the project); (2) the non-FLIA members in the project areas (Group II; those people living in the project areas but not benefiting directly from the FLIA-controlled water resources); (3) the FLIA members outside the project areas (Group III: they are beneficiaries of other water facilities irrelevant to the AID water project); and (4) the non-FLIA members outside the project areas (Group IV: these are the people who do not benefit from any form of FLIA water facilities). Group I is composed of 243 members (79% of the respondents) living in the project areas and Group II consists of 64 persons (21%) in the same areas. The number of Group III members is 29 (18%) and that of Group IV is 128 (82%). In the data analysis presented below, however, we will eliminate the second and the third group (the FLIA members in the nonproject areas) mainly because of some methodological problems involved in the cross-tabular analysis. That is, the small size of Group II and III members makes it difficult for us to control third variables such as age, sex, and SES because of the occasional appearance of empty cells in the table. When this happens, a cross-tabular analysis does not have much meaning.

Secondly, even if we might have a meaningful size of numbers in all cells of the table, comparing eight groups controlled by any background variable (e.g., age or sex) makes it too complicated for us to interprete the data. Thirdly, our goal of the data analysis is to see the social impact of the water project mainly by comparing the FLIA members (the direct beneficiaries) in the project areas with those farmers who live outside the project areas, but do not belong to the FLIA and thus do not have anything to do with the AID or other water projects.

In the presentation of the results of our data analysis, first we will discuss the respondents' perceived environmental conditions as they relate to their well-being in their local areas. As we mentioned earlier, this aspect of the quality of life indicators refers to the environmental dimension of life quality. Next we will present the respondent's evaluation of his or her social surroundings. This is the social structural and interactional dimension of the quality of life indicators. Finally, data regarding the individual or personal dimension of life quality, i.e., the respondent's evaluation of his or her well-being will be presented.

1. Environmental Dimension

Four variables are included in the environmental dimension of the quality of life indicators. These are the respondents' evaluations of transportation conditions, market facilities, educational services and medical services and facilities in the villages. Data in Table 37 provide us with information regarding ordinary villagers' and their leaders' ratings of the transportation conditions in their communities.

Among the ordinary villagers the FLIA members in the project areas (the beneficiaries as designated hereafter) evaluate the community transportation conditions more favorably than the non-FLIA members in

Table 37. Subjective Evaluation of Quality of Life: Evaluation of Transportation Conditions by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	60	47	56	49	44	47
Not Good	40	53	44	51	56	53
	100%	100%	100%	100%	100%	100%
	(243)	(128)	(371)	(53)	(23)	(76)

Percent Difference = 13% Percent Difference = 5%

Difference of Defference = 8%

Table 38. Respondents' Evaluation of Transportation Conditions by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	62	53	59	60	44	54

d.% = 9% d.% = 16%

d. of d. = -7%

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	59	49	55	64	44	57

d.% = 10% d.% = 20%

d. of d. = -10%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	59	49	56	63	43	56

d.% = 10% d.% = 20%

d. of d. = -10%

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	54	42	49	64	51	60

d. % = 12% d. % = 13%

d. of d. = -1%

the non-project areas (hereafter designated as the nonbeneficiaries). Thus, on the whole, residents living in the water project areas are more satisfied with their community transportation conditions than those living outside the project areas. A similar trend is also seen in the village chiefs' rating. The village leaders of the project areas evaluate the transportation conditions a little more favorably than the leaders of the nonproject villages.[1/]

Furthermore, this pattern remains more or less same when the respondents' age, sex and socioeconomic status are controlled. In other words, regardless of age, sex and SES difference the beneficiaries in the project areas rate their community transportation conditions more favorably than the nonbeneficiaries outside the project areas. Thus, since demographic and socioeconomic background variables such as age, sex and SES do not change the original finding that most of the residents of the project areas evaluate their community transportation conditions more favorably than those residing outside the project areas, we suspect that the AID water project had some impact on the environmental improvement in the project villages.

When we compare the two groups within each of age, sex and SES groups, we can tell that younger people, females and those of lower SES perceive their community transportation more positively than the older, males and higher SES people. According to Table 38, the difference between the beneficiaries' rating and the nonbeneficiaries' rating is 16 percent (60 - 44 = 16%) among the young while it is 9 percent (62 - 53 = 9%) among the old. Thus, the difference of difference between the

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1/ When, however, we compare the total ordinary villagers' rating with those leaders' rating, we can see that the village leaders are more critical about their community transportation conditions than their villagers.

younger and older groups is 7 percent (16 - 9 = 7%), suggesting a tendency that the younger members of the beneficiary groups rate the transportation conditions more favorably than the younger members of the nonbeneficiary group while the difference between the beneficiary and nonbeneficiary groups is smaller among the old people.

Likewise, the female beneficiaries evaluate the transportation conditions much more positively than the famale members of the non-beneficiary group (64 - 44 = 20%) while the difference between the male beneficiaries and male nonbeneficiaries is smaller (59 - 49 = 10%). Similarly, the difference between the beneficiary and nonbeneficiary groups is large among the lower (63 - 43 = 20%) than among the higher SES people (59 - 49 = 10%). Thus, age, sex and SES seem to be important variables related to the respondents' evaluation of the community transportation system within each of the two groups. If, however, we discard the difference among the two groups, age, sex and SES per se do not seem to have much influence on the respondents' evaluation of the transportation system (e.g., compare the total of the high SES with the total of the low SES, then we see no difference, i.e., 56 - 56 = 0). Only when we compare the two groups, do age, sex and SES emerge as significant variables. This means age, sex or SES interacts with the group characteristics in its relation to the respondents' evaluation of their community environment. We are not sure why this is the case. No other studies are available in Korea that are useful to explain the difference in the subjective evaluation of environmental conditions between age, sex and SES groups as related to any community development project. At present, let it suffice to say that the difference in the subjective evaluation of the transportation condition between the beneficiaries and nonbeneficiaries is larger among the younger people, females and

those of the lower SES than among the old, males and those of the higher SES.

In addition to the individual's demographic and socioeconomic background, finally, a village characteristic, viz., the degree of development of the villages in terms of the Saemaul movement was controlled in order to see if the Saemaul movement had any impact on the respondents' evaluation of their community environment. Data at the bottom of Table 38 present interesting findings. First, regardless of the development stage of the villages, the beneficiaries perceive their present community transportation conditions more favorably than the nonbeneficiaries in both developing and developed villages. This finding indicates that the AID water project had something to do with the village transportation conditions irrespective of the Saemaul project.

Second, when we compare the overall evaluation of the people living in the developing villages with the total rating of the people residing in the developed villages, the latter evaluate their community transportation conditions more favorably than the former (60 - 49 = 11%). This suggests that the Saemaul project had impact on the community transportation conditions, too. More specifically, if we compare the evaluations of the beneficiaries and nonbeneficiaries living in the developing villages with the evaluation of the same groups residing in the developed villages respectably, we can see that both group members of the developed villages evaluate the transportation conditions more favorably than those from the developing villages (the differences in each of the two groups are 64 - 54 = 10% and 51 - 42 = 9% in the same direction). Thus, we can get an idea from these findings that both the AID project and the Saemaul project had impact on the development of the village transportation conditions.

In connection with this, however, one might ask which of the two projects had more impact on the community transportation conditions. An answer to this question might be obtained if one compares the difference of ratings between the total developing villages with the total developed villages (which is 60 - 49 = 11%) with the difference of ratings between the beneficiaries and nonbeneficiaries discarding the village status in terms of the Saemaul development programs (see Table 37; e.g., the difference between the beneficiaries and nonbeneficiaries is, 60 - 47 = 13%). In this case, since the difference of the difference is negligible (13% - 11% = 2), one might conclude that the AID projects and Saemaul project had about the same degree of influence on the transportation conditions in the rural villages.

Finally, the combined impacts of both projects on the community transportation conditions can be seen when we compare the beneficiaries' rating in the developed villages with the rating of the nonbeneficiaries from the developing villages. Sixty four percent of the beneficiaries of the developed villages rate the transportation conditions favorably in comparison to 42 percent of the nonbeneficiaries of the developing villages who rate it positively, suggesting that there is a joint effect of the two projects on the villages' transportation conditons (64% - 42% = 22%).

The next items for the environmental dimension of the quality of life indicators are concerned with the community market facilities, educational facilities and medical facilities and services.

Data in Tables 39 and 40 present information about the respondents' subjective evaluation of quality of life as related to the community market facilities. According to figures in Table 39, the beneficiaries seem to be slightly more satisfied with the present market facilities

Table 39. Subjective Evaluation of Quality of Life: Evaluation of Market Facilities by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas (I)	Residents in Non-project Areas (IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	57	52	55	54	26	46
Not Good	43	48	45	46	74	54
	100% (241)	100% (127)	100% (368)	100% (53)	100% (23)	100% (76)

Percent Difference = 5% Percent Difference = 28%

Difference of Defference = -23%

Table 40. Respondents' Evaluation of Market Facilities by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	60	58	60	55	49	53

d.% = 2% d.% = 6%

d. of d. = -4%

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	54	55	54	63	47	57

d.% = -1% d.% = 16%

d. of d. = -17%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	56	60	57	59	40	53

d.% = -4% d.% = 19%

d. of d. = -23%

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	51	39	45	60	63	61

d. % = 12% d. % = -3%

d. of d. = -15%

in their community than the nonbeneficiaries. However, according to the village leaders' information, market facilities are much more favorably evaluated in the project areas than in the nonproject areas.

Next when we control age, sex, and SES of the respondents, the difference between the beneficiaries and nonbeneficiaries in their evaluation of market facilities is negligible among the goups of the old, females and higher SES. Only those beneficiaries who are younger, females and lower SES members evaluate the community market facilities more positively than those nonbeneficiaries who happen to be young people, females and lower SES members. Among these three background variables, however, age seems to have the least influence (d. of d. = 4%). In comparison to this, sex and SES have substantial impact on the evaluation of the market facilities (d. of d. = 17%, 23% respectively).

As in the case of the transportation conditions, the Saemaul projects seem to have had significant impact on the community market facilities, too. The residents living in the developed villages evaluate the market facilities much more positively than those of the developing villages (61 - 45 = 16%, difference). Furthermore, the beneficiaries living in the developing villages evaluate the market facilities much more favorably than the nonbeneficiaries living in the same developing villages. However, the difference between the beneficiaries and nonbeneficiaries in their rating of the market facilities is negligible (3%) in the developed villages. This finding suggests that the impact of the AID water project is most strongly felt by the beneficiaries or the FLIA members of the project areas. There also is a joint effect of both of the AID projects and the Saemaul programs. Compare 60 percent of the beneficiaries belonging to the developed villages who are satisfied with the present conditions of the market facilities with

Table 41. Subjective Evaluation of Quality of Life: Evaluation of Educational Facilities by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	63	58	61	57	52	55
Not Good	37	42	39	43	48	45
	100%	100%	100%	100%	100%	100%
	(243)	(128)	(371)	(53)	(23)	(76)
	Percent Difference = 5%			Percent Difference = 5%		
	Difference of Defference = 0					

Table 42. Respondents' Evaluation of Educational Facilities by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	65	65	65	62	55	59
	d.% = 0			d.% = 7%		
	d. of d. = -7%					
2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	59	56	58	71	60	67
	d.% = 3%			d.% = 11%		
	d. of d. = -8%					
3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	57	55	56	71	63	68
	d.% = 2%			d.% = 8%		
	d. of d. = -6%					
4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	59	46	53	65	68	66
	d. % = 13%			d. % = -3%		
	d. of d. = -16%					

only 39 percent of the nonbeneficiaries living in the developing villages who express satisfaction with the market facilities (d.%: 60 - 39 = 21%).

A similar trend is seen in the respondents' evaluation of their community educational facilities. According to Table 41, both of the beneficiaries and village leaders from the project areas evaluate their community educational facilities slightly more positively than the non-beneficiaries and their village chiefs in the nonproject areas. Here again there is no difference between the beneficiaries and the non-beneficiaries in their evaluation of the educational facilities and services among the old, male and higher SES persons. Only among the young, female and lower SES respondents do the beneficiaries evaluate the educational facilities somewhat more positively than the non-beneficiaries.

The impact of the Saemaul project is also seen according to the data in Table 42. On the whole, the residents of the developed villages evaluate their community educational facilities more favorably than those of the developing villages regardless of the AID water project. However, when we compare the beneficiary group with the nonbeneficiary group within the developing villages, the beneficiaries feel more satisfied with their community educational facilities than the non-beneficiaries (13% difference). Also, by comparing the ratings of the beneficiaries of the developed villages with the rating of the non-beneficiaries of the developing villages we can detect a joint effect of the AID and Saemaul projects on the community educational facilities (the joint effect is 65 - 46 = 19%).

Finally, figures in Tables 43 and 44 present data on the residents' evaluation of the community medical services and facilities. The

Table 43. Subjective Evaluation of Quality of Life: Evaluation of Medical Services and Facilities by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	20	13	18	11	13	12
Not Good	80	87	82	89	87	88
	100%	100%	100%	100%	100%	100%
	(243)	(128)	(371)	(53)	(23)	(76)

Percent Difference = 7% Percent Difference = -2%

Difference of Defference = 9%

Table 44. Respondents' Evaluation of Medical Services and Facilities by Age, Sex, and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	20	8	16	21	16	19

d.% = 12% d.% = 5%

d. of d. = 7%

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	19	10	16	22	19	21

d.% = 9% d.% = 3%

d. of d. = 6%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	18	13	16	24	14	20

d.% = 5% d.% = 10%

d. of d. = -5%

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	24	5	16	19	20	19

d. % = 19% d. % = -1%

d. of d. = -20%

beneficiaries regard their community medical facilities as more satisfied than those nonbeneficiaries from the outside of the project areas. In this case, however, the village chiefs from the both project and non-project areas do not show much difference in their opinion about the quality of their community medical facilities and services.

When we hold age, sex and SES constant, still, the beneficiaries tend to evaluate their community medical facilities more favorably than the nonbeneficiaries. This time, however, the difference between the beneficiaries and nonbeneficiaries in their rating of the medical services is larger among the old and male respondents than among the young and female respondents. Put differently, as far as the medical facilities and services are concerned, the nonbeneficiaries who are old and male are least satisfied with them. In comparison to this, the group which seems to be most satisfied with the medical facilities among the four groups is that of the beneficiaries with the lower SES background.

As for the impact of the Saemaul programs, there is not much difference between the developing and developed villages. However, within the developing villages the difference between the beneficiaries and the nonbeneficiaries in their ratings of the equality of the medical services is rather substantial (d.% = 19%). This finding suggests that the AID water project might have had some positive impact on the medical facilities in the developing villages while it did not have any impact on the already developed villages.

In summary, we have seen a consistent pattern of findings regarding the environmental dimension of the quality of life indicators. The beneficiaries who are the FLIA members in the AID project areas evaluate such environmental conditions as transportation conditions, market facilities, educational facilities and medical facilities and services

in their communities more favorably than those nonbeneficiaries living in the villages outside the project areas. Furthermore, this pattern did not change even when we controlled third variables such as age, sex, SES and the developmental status of the villages in terms of the Saemaul programs.

However, the largest difference between the beneficiaries and the nonbeneficiaries in their ratings of the environmental conditions is seen in the transportation conditions. This finding may stem from the fact that with the construction of the new water facilities, road conditions and other transportation systems improved more in the project areas than in the nonproject areas. We also found that the Saemaul movement had some impact on environmental conditions except for medical services and facilities. Thus, our data suggested that the AID and the Saemaul projects had jointly affected such environmental conditions as transportation conditions, market facilities and educational facilities.

2. Social Structural and Interactional Dimension

For the measurement of the social (structural and interactional) dimension of the quality of life the following seven items were used in our survey: the degree of closeness (or extension of friendly help and support) among the villagers, social conditions for the aged, public safety and order, contact (or interaction) with relatives, community participation, leisure and recreation, and overall community satisfaction.

Data in Tables 45 and 46 provide us with information about the respondents' rating of the degree of human closeness in their villages. While the majority (95%) of the ordinary villagers and their chiefs believe that people in their villages are still close and friendly to each other, there is no difference between the beneficiaries and nonbeneficiaries or between the village leaders of the project areas

Table 45. Subjective Evaluation of Quality of Life: Evaluation of Closeness Among Villagers by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas (I)	Residents in Non-project Areas (IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	96	94	95	94	96	95
Not Good	4	6	5	6	4	5
	100%	100%	100%	100%	100%	100%
	(243)	(128)	(371)	(53)	(23)	(76)

Percent Difference = 2% Percent Difference = -2%

Difference of Defference = -4%

Table 46. Respondents' Evaluation of Closeness among Villagers by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	97	95	97	95	93	94

d.% = 2% d.% = 2%

d. of d. = 0

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	96	93	95	95	96	96

d.% = 3% d.% = -1%

d. of d. = 2%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	95	91	94	97	98	97

d.% = 4% d.% = -1%

d. of d. = 5%

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	96	93	95	96	94	95

d. % 3% d. % =2%

d. of d. = 1%

Table 47. Subjective Evaluation of Quality of Life: Evaluation of Public Safety and Order by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	91	94	92	91	91	91
Not Good	9	6	8	9	9	9
	100%	100%	100%	100%	100%	100%
	(243)	(128)	(371)	(53)	(23)	(76)
	Percent Difference = -3%			Percent Difference = 0		
	Difference of Defference = -3%					

Table 48. Respondents' Evaluation of Public Safety and Order by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	92	93	92	90	94	92
	d.% = -1%			d.% = -4%		
	d. of d. = 3%					

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	90	93	91	92	96	93
	d.% = -1%			d.% = -4%		
	d. of d. = 3%					

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	92	92	92	89	96	91
	d.% = 0			d.% = -7%		
	d. of d. 7%					

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	92	93	93	90	94	92
	d. % = -1%			d. % = -4%		
	d. of d. = 3%					

and those from the nonproject areas. Furthermore, data in Table 46 indicate that this original finding sustains even when such other variables as age, sex, SES and the village status of the Saemaul development stage are controlled.

The next item we are concerned with is community social conditions for older persons. We introduced this item mainly to check social conditions for the well-being of the aged whose status is declining in a rapidly industrializing society. On the whole, still the majority (75%) of the respondents believe that social conditions for the elderly are favorable in their communities. According to Table 47, however, a slightly larger portion of the beneficiaries feel that older persons are treated well in their community than nonbeneficiaries. This is particularly true when we compare the project area village chiefs with those of the nonproject areas. Seventy four percent of the project area village leaders believe the elderly live in a favorable social environment. In comparison to this, however, only 52 percent of the village chiefs from the nonproject areas believe so (thus, the percentage difference is 22%).

When the third variables of age, sex and SES are introduced, the original finding still remains about the same. This means, regardless of the age, sex and SES difference, the beneficiaries tend to evaluate the social conditions for the aged more highly than those nonbeneficiaries living outside the project areas. A similar trend is seen when we control the developmental status of the villages in terms of the Saemaul movement. In both developing and developed villages the beneficiaries tend to rate the social conditions for the elderly more favorably than the nonbeneficiaries although this tendency is stronger in the developed villages. However, the data in Table 48 suggest that

Table 49. Subjective Evaluation of Quality of Life: Evaluation of Interaction with Relatives by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	75	71	74	81	77	78
Not Good	25	29	26	19	23	22
	100%	100%	100%	100%	100%	100%
	(241)	(128)	(369)	(53)	(23)	(76)

Percent Difference = 4% Percent Difference = 4%

Difference of Defference = 0

Table 50. Respondents' Evaluation of Interaction with Relatives by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	76	53	69	75	80	77

d.% = 23% d.% = -5%

d. of d. = 25%

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	78	69	75	69	75	71

d.% = 9% d.% = -6%

d. of d. = 15%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	76	77	76	74	63	70

d.% = -1% d.% = 11%

d. of d. = -12%

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	80	63	73	73	78	74

d. % 17% d. % -5%

d. of d. = 22%

the Saemaul movement per se does not seem to have any substantial impact on the well-being of the older persons in rural Korea.

When we asked our respondents whether they are satisfied with social order and public safety in their community, the majority (92%) of them said they are satisfied with that social condition. This finding is not affected by the respondents' background or their village characteristics, indicating that most of the Korean rural people are not concerned with public safety and order as a social problem.

Data in Tables 49 and 50 provide us with information about some interactional aspect of the residents' community life. The majority of the ordinary residents (74%) and the village leaders (78%) said they maintain a satisfactory level of interaction with their relatives. However, there is a weak tendency for the villagers and their chiefs living in the water project areas to manifest a slightly higher satisfaction with their relationships and interactions with relatives than those people residing in other areas.

When the respondents' socioeconomic backgrounds were controlled, somewhat different patterns appear. First, looking at the villagers' response to the quality of the interactional aspect among relatives, the younger people (77%), males (75%) and higher SES people (76%) tend to evaluate it a little more positively than the old (69%), females (71%) and lower SES residents (70%). The difference between the beneficiaries and nonbeneficiaries regarding this aspect of life quality, however, is more distinctive among the old, males and the lower SES group. Among the old, for example, 76 percent of the beneficiaries regard their interaction with relatives satisfactory in comparison to only 53 percent of the nonbeneficiaries who think so. Similarly, the beneficiaries who are males and lower SES persons regard their interaction with relatives

more satisfying than the nonbeneficiaries with the same socioeconomic background.

The impact of the Saemaul movement, however, seems to be minimal on the interactional aspect of the life quality as far as the social interaction among the kins and relatives is concerned. Perhaps this is natural considering the fact that the Saemaul programs never intended to promote more interaction among the kins. In comparison to this, the water project seems to have had a significant impact on the interactional aspect of the life quality. Within the developing villages a much larger portion of the beneficiaries (80%) believe their interactions among the relatives are satisfactory than the nonbeneficiaries (63%) who believe so. However, among the developed villages the impact of the water project on this aspect of the life quality seems negligible.

Did the water project promote the village residents' social participation in their communities? At the first glance, both village residents and their leaders do not seem to believe so. Rather in this case, the nonbeneficiaries tend to feel that their community participation is slightly more satisfying than the beneficiaries. Age, sex and SES do not change this pattern. However, when we control the village status in terms of the Saemaul movement, a distinctive pattern appears. In the developing villages the beneficiaries feel that their community participation is more active and satisfactory than the nonbeneficiaries. In the developed villages, however, this trend is opposite. In this case beneficiaries believe their community participation is less satisfactory than the nonbeneficiaries. Thus, we suspect that only in the developing villages which were somewhat backward to other villages the water project has some impact on the villagers' community participation. However, we are not sure why an opposite trend is seen in the developed villages.

Table 51. Subjective Evaluation of Quality of Life: Evaluation of Community Participation by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	77	81	78	98	96	97
Not Good	23	19	22	2	4	3
	100%	100%	100%	100%	100%	100%
	(243)	(128)	(371)	(53)	(23)	(76)
	Percent Difference = -4%			Percent Difference = 2%		
	Difference of Defference = -6%					

Table 52. Respondents' Evaluation of Community Participation by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	79	80	79	76	82	78
	d.% = -1%			d.% = -6%		
	d. of d. = 5%					
2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	84	90	86	64	67	65
	d.% = -6%			d.% = -3%		
	d. of d. = 3%					
3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	79	84	81	75	77	75
	d.% = -5%			d.% = -2%		
	d. of d. = 3%					
4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	84	72	79	74	89	78
	d.% = 12%			d.% = -15%		
	d. of d. = 27%					

Table 53. Subjective Evaluation of Quality of Life: Evaluation of Leisure and Recreation by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	30	31	33	40	32	37
Not Good	70	69	67	60	68	63
	100%	100%	100%	100%	100%	100%
	(243)	(127)	(370)	(53)	(23)	(76)
	Percent Difference = -1%			Percent Difference = 8%		
	Difference of Defference = -9%					

Table 54. Respondents' Evaluation of Leisure and Recreation by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	31	26	35	30	34	32
	d.% = 5%			d.% = -4%		
	d. of d. = 9%					

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	31	32	35	29	31	30
	d.% = -1%			d.% = -2%		
	d. of d. = 1%					

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	32	37	38	28	24	27
	d.% = -5%			d.% = 4%		
	d. of d. = 9%					

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	28	30	29	32	33	32
	d. % = -2%			d. % = -1%		
	d. of d. = 1%					

As we will see later again, most of the villagers in the AID water project claimed that their participation in the planning and implementation of the water project was limited. This seems to be particularly true in the developed villages where central government authority is most strongly felt. In the developing villages, however, the government intervention, especially, that through the Saemaul movement was minimal and thus the beneficiaries had an opportunity to participate in their community water project even though their participation was somewhat limited.

Data in Tables 53 and 54 are about the residents' leisure and recreational aspect of their life. While only a small portion (33%) of our respondents seem to be satisfied with their life conditions related to leisure and recreational activities, there is no difference between the beneficiaries and nonbeneficiaries in this aspect of their life quality. However, the village leaders of the water project areas seem to evaluate their activities related to leisure and recreation slightly better than the leaders from other areas. The difference between the beneficiaries and nonbeneficiaries in this aspect of the quality of life is not a significant one even when their background variables are held constant. The only difference regarding recreation and leisure activities appear between the respondents with high SES and those with low SES (38% vs. 27%). This findings, however, is not surprising considering that the more affluent people should have more resources and better opportunities to enjoy leisure and recreation. On the whole, the AID water project and the Saemaul programs do not seem to have had any significant impact on the villagers' leisure and recreational life.

So far we have seen the respondents' evaluations of the environmental and social conditions related to their village life quality.

Table 55. Subjective Evaluation of Quality of Life: Evaluation of Overall Community Satisfaction by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	73	73	73	66	61	64
Not Good	27	27	27	34	39	36
	100%	100%	100%	100%	100%	100%
	(242)	(128)	(370)	(53)	(23)	(76)

Percent Difference = 0 Percent Difference = 5%

Difference of Defference = -5%

Table 56. Respondents' Evaluation of Overall Community Satisfaction by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	77	88	80	70	66	69

d.% = -11% d.% = 4%

d. of d. 15%

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	70	69	70	79	79	79

d.% = 1% d.% = 0

d. of d. = 1%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	72	66	70	74	82	77

d.% = 6% d.% = -8%

d. of d. = 14%

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	74	68	71	73	76	74

d. % = 6% d. % = -3%

d. of d. = 9%

Finally, we wanted to know what their overall evaluation of their community life is. In order to find this out, we simply asked how satisfied they are with their village or community life. Table 55 and 56 present their responses to this question.

According to data in Table 55, there is no difference between the beneficiaries and nonbeneficiaries in their community satisfaction. However, among the village leaders, those from the project areas show a weak tendency that they are more satisfied with their community than those from the nonproject areas.

After controlling age and SES, however, some difference between the beneficiaries and nonbeneficiaries in their community safisfaction emerges. The beneficiaries who are old or with lower SES seem to be less satisfied with their community than the nonbeneficiaries who are old or lower SES people. In contrast to this, among the group of the young or those of higher SES, the beneficiaries are more likely satisfied with their community than the nonbeneficiaries. Again we are not sure why this is the case.

However, consistent with the previous findings regarding the respondents' evaluation of their environmental and social conditions, more of the beneficiaries living in the developing villages seem to be satisfied with their community than the nonbeneficiaries residing in the same villages. But this is not true in the developed villages. In fact the trend is reversed in this case. Thus, again we suspect that the AID water project may have had a positive effect on the residents who live in the developing villages but not on those living in the already developed villages.

In summary, as far as our respondent's social life is concerned, the AID water project and even the Saemaul movement does not seem to have had much significant impact. There is a weak tendency that the

beneficiaries evaluate the conditions for the aged, interaction with relatives a little more positively than the nonbeneficiaries. No significant difference between the people from the project areas and those from the nonproject areas was found in other aspects of social life.

When we controlled the Saemaul village status, the beneficiaries from the developing villages showed more favorable attitudes toward some aspect of their social life, e.g., interaction with relatives and community participation, than the nonbeneficiaries from the same villages. Furthermore, earlier we found it out that, the beneficiaries evaluated most of the community environmental conditions more positively than the nonbeneficiaries only in the developing villages. These findings are more or less consistent with the fact that in the developing villages slightly more people from the water project areas are satisfied with their overall community life than the nonbeneficiaries. Thus, there are some indications that the AID water project had a positive impact on those who live in the developing villages.

3. Individual Dimension

Indicators of the individual dimension of quality of life are to measure farmers' subjective evaluations of their housing conditions, family income status, satisfaction with farm work, hardness of farm work and their overall life satisfaction.

Figures in Table 57 indicate that about half of the rural residents and their village chiefs feel they are satisfied with their housing conditions. Comparing our respondents from the water project areas with those from outside the project areas, the former (beneficiaries) seem more satisfied with their housing conditions than the latter (nonbeneficiaries). Also, the village chiefs of the benefit recipient areas

Table 57. Subjective Evaluation of Quality of Life: Evaluation of Housing Conditions by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	53	37	47	53	44	50
Not Good	47	63	53	47	56	50
	100% (243)	100% (120)	100% (371)	100% (53)	100% (23)	100% (76)

Percent Difference = 16% Percent Difference = 9%

Difference of Defference = 7%

Table 58. Respondents' Evaluation of Housing Conditions by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	55	45	52	51	34	44

d.% = 10% d.% = 17%

d. of d. = 7%

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	52	34	46	54	44	50

d.% = 18% d.% = 10%

d. of d. = 8%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	57	39	51	47	35	43

d.% = 18% d.% = 8%

d. of d. 8%

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	54	30	44	52	44	50

d. % 14% d. % = 8%

d. of d. = 6%

rate their housing conditions more positively than the leaders from other areas. This consistent response among the villagers and their leaders may indicate that the AID water project had some positive imapct on the improvement of the housing conditions in the project villages.

Furthermore, this pattern did not change even after age, sex, SES and the Saemaul village status were controlled. According to data in Table 58, regardless of these socioeconomic background differences, the beneficiaries feel more satisfied with their housing conditions than the nonbeneficiaries. And, this trend is stronger among the young, males and higher SES respondents. However, it is not clear why the male and younger beneficiaries rate their housing conditions more favorably than the female and older beneficiaries while it is is understandable that the beneficiaries with higher SES feel more satisfied with their housing conditions than those with lower SES background.

When we compare the developing villages with the developed villages, the residents of the latter evaluate the housing conditions somewhat more positively than those from the developing villages. This makes some sense. However, if we look at the difference between the benificiaries and nonbeneficiaries in their rating of the housing conditions within each of the two types of villages, the difference is larger in the developing villages than in the developed villages. This suggests that the impact of the AID water project on the rural people's housing conditions was felt greater in the developing villages than in the developed villages. However, the fact that the difference between the beneficiaries and nonbeneficiaries in their rating of the housing conditions is smaller in the developed villages than in the developing villages suggests that the Saemaul programs had some impact, too. Indeed, the data at the bottom of Table 58 indicated that the Saemaul project

Table 59. Subjective Evaluation of Quality of Life: Evaluation of Family Income by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	16	16	16	15	35	21
Not Good	84	84	84	85	65	79
	100%	100%	100%	100%	100%	100%
	(243)	(128)	(371)	(53)	(23)	(76)
	Percent Difference = 0			Percent Difference = -20%		
	Difference of Defference = 20%					

Table 60. Respondents' Evaluation of Family Income by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	19	15	18	15	16	15
	d.% = 4%			d.% = -1%		
	d. of d. = 5%					

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	19	18	18	13	13	13
	d.% = 1%			d.% = 0		
	d. of d. = 1%					

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	20	20	20	12	10	11
	d.% = 0			d.% = 2%		
	d. of d. = 2%					

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	17	11	14	16	20	17
	d. % = 6%			d. % = -4%		
	d. of d. = 10%					

and the AID water project had a joint effect on the housing conditions in the water project areas (i.e., Compare 52% of the beneficiaries' rating in the developed villages with 30% of the nonbeneficiaries' rating in the developing villages. The difference is 22% indicating a joint effect of the two projects).

We have seen earlier that both the AID water project and Saemaul movement had some impact on the environmental conditions in the project areas. We have just seen a similar effect on the respondents' housing conditions in the project areas. While we treated here the housing aspect of life quality as a part of the individual dimension of the respondent's life, housing conditions can be regarded as an environmental condition for the resident, too, looking at it from a different angle.

When we examine more personal aspects of the life quality of the rural residents such as farm work satisfaction, hardness of farm work and income, we find no significant and direct effect of the water project on the rural residents. Looking at Table 59 and 60, for example, most of the rural residents and their village leaders feel that their family income is inadequate. Both beneficiaries and nonbeneficiaries feel in the same way. However, there is a great deal of difference between the village leaders from the water project areas and those from the nonproject areas. This time, however, it is the village chiefs from the nonproject areas who feel less dissatisfied with their family income status. Again we are not sure why this is the case, perhaps simply the village chiefs from the nonproject areas happen to be economically better off than those from the water project areas.

No difference between the beneficiaries and nonbeneficiaries regarding their evaluation of their family income status appear when age, sex and SES were controlled. If we discard this group difference

Table 61. Subjective Evaluation of Quality of Life: Evaluation of Farm Work Satisfaction by Billagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	51	51	54	49	50	49
Not Good	49	49	46	51	50	51
	100%	100%	100%	100%	100%	100%
	(243)	(127)	(370)	(53)	(23)	(76)

Percent Difference = 0 Percent Difference = 1%

Difference of Defference = 1%

Table 62. Respondents' Evaluation of Farm Work Satisfaction by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	60	59	65	45	48	46

d.% = 1% d.% = -3%

d. of d. = 4%

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	49	44	51	56	63	58

d.% = 5% d.% = -7%

d. of d. = 12%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	53	54	57	49	47	48

d.% = -1% d.% = 2%

d. of d. = 3%

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	58	40	50	49	60	56

d. % = 18% d. % = -11%

d. of d. = 29%

(beneficiaries vs. nonbeneficiaries), males and higher SES persons, in particular, feel somewhat more satisfied with their income status than female and lower SES respondents. Only when we control the village status of the Saemaul movement, a slight difference between the beneficiaries and nonbeneficiaries in the evaluation of their income status appears. That is, among those residents who reside in the developing villages, more beneficiaries say they are satisfied with their income status than nonbeneficiaries. Or, to put it in a different way, it is the nonbeneficiaries (11%) living in the developing villages who are least satisfied with their family income status. This suggests that the AID water project had some positive impact on the beneficiaries' income status only in the developing villages and no effect on those living in the already developed villages.

A similar trend is seen in the respondents' satisfaction with their farm work. No difference exist between the beneficiaries or their village leaders and the nonbeneficiaries or their leaders regarding their rating of the farm work satisfaction. The respondents' age did not affect this relationship. However, notice that according to Table 61 older farmers are more likely to express their satisfaction with farm work than the younger (65% vs. 46%). Similarly, females and farmers with higher SES rate their farm work more positively than male farmers or those with lower SES regardless of the regional difference.

One interesting finding is that while male beneficiaries seem to be slightly more satisfied with their farm work than males from outside the project areas, the direction is reversed among the female respondents. That is, females living in the project areas are less satisfied with their farm work than females from the nonproject areas. Although it is not clear why this is the case, our guess is that women in the project

Table 63. Subjective Evaluation of Quality of Life: Evaluation of Hardness of Farm Work by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	20	17	21	24	23	24
Not Good	80	83	79	76	77	76
	100%	100%	100%	100%	100%	100%
	(243)	(127)	(370)	(53)	(23)	(76)
	Percent Difference = 3%			Percent Difference = 1%		
	Difference of Defference = 2%					

Table 64. Respondents' Evaluation of Hardness of Farm Work by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	17	18	23	22	17	20
	d.% = -1%			d.% = 5%		
	d. of d. = 6%					

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	26	18	27	9	17	12
	d.% = 8%			d.% = -8%		
	d. of d. = 16%					

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	23	21	26	16	12	14
	d.% = 2%			d.% = 4%		
	d. of d. = 2%					

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	20	14	17	20	20	20
	d. % = 6%			d. % = 0		
	d. of d. = 6%					

areas had to be more involved in farm work than before the project as a consequence of expanded arable land and farming resulting from the implementation of the water project.

Controlling the village status of the Saemaul movement renders us another interesting finding. In the developing villages the beneficiaries feel that their farm work is rewarding and satisfacting more often than the nonbeneficiaries (d.% = 18%). In contrast to this, the trend is reversed in the developed villages. Here more of the farmers from the nonproject areas feel satisfied with their farm work than the beneficiaries of the project areas. Thus, again, our data indicate that some impact of the water project is felt by the beneficiaries who belong to the developing villages while this is not true in the developed villages.

Nest we asked our respondents how hard their farm work is nowadays. The result is presented in Tables 63 and 64. The response to this question is about the same among the villagers and their leaders regardless of their residential areas. Most of them feel that their farming still demands hard work.

The respondents' opinion about the hardship of their farm work differs from group to group depending on sex, age, SES and the village characteristics. When we look at the responses by sex and SES discarding the residential area difference, males and higher SES farmers rate their farm work in terms of its hardship more positively than females and those of lower SES. Among the male respondents, however, the beneficiaries of the project areas evaluate the nature of their farm work more positively than the nonbeneficiaries who live in the nonproject areas. With better water resources and facilities resulting from the AID water project, the male farmers in the project areas may feel that

their work is easier nowadays than before. In contrast to this, however, women seem to feel differently. Consistent with the previous finding that women in the water project areas feel less satisfied with their farming than those from the nonproject areas, a larger proportion of females (in fact most of them, 91%) claim they suffer more from hardship of farm work in the water project areas than in the nonproject areas. This consistent pattern of findings regarding women's attitudes toward their farming seems to suggest that the new water facilities made women more involved in farming than before the project. In fact, we got this impression during our field trip in the project areas. The impact of the Saemaul movement on this aspect of life quality of the farmer seems negligible although there is a weak tendency for the beneficiaries to rate their farm work conditions a little more favorably than the non-beneficiaries in the developing villages.

Finally, we asked our respondents if on the whole they are satisfied with their life. About 41 percent of the ordinary villagers and 34 percent of the village chiefs expressed satisfaction with their lives. While there was no difference between the villagers from the water project areas and those from other areas in their ratings of their overall life conditions, the village chiefs from the nonproject areas evaluate their life conditions slightly more positively than the leaders from the project areas. Although again it is not clear why this difference appears among the village leaders and not among the villagers, we suspect that the family income status may be a factor related to this phenomenon. According to Table 59, we found that there was no difference between the beneficiaries and nonbeneficiaries in their rating of the family income status. However, comparing the village chiefs from the project areas with those from the nonproject areas, we found that the

Table 65. Subjective Evaluation of Quality of Live: Evaluation of Overall Live Satisfaction by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
Good	38	39	41	32	39	34
Not Good	62	61	59	68	61	66
	100%	100%	100%	100%	100%	100%
	(243)	(128)	(371)	(53)	(23)	(76)

Percent Difference = -1% Percent Difference = -7%

Difference of Defference = 6%

Table 66. Respondents' Evaluation of Overall Life Satisfaction by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
Good	41	36	46	36	41	38

d.% = 5% d.% = -5%

d. of d. = 10%

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
Good	41	37	43	34	44	37

d.% = 4% d.% = -10%

d. of d. = 14%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
Good	42	43	42	33	34	39

d.% = -1% d.% = -1%

d. of d. = 0

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
Good	40	37	38	38	41	42

d. % = 3% d. % = -3%

d. of d. = 6%

latter expressed much more satisfaction with their income than the former. In fact, data in Table 1, Appendix A show us that the life satisfaction is most strongly associated with the family income ($r = .36$, $p < .01$).

When age and sex are controlled, a relationship appears between the beneficiaries and nonbeneficiaries regarding the evaluation of their own life satisfaction. Among the groups of the old and male respondents, the beneficiaries tend to express life satisfaction a little more than the nonbeneficiaries while the trend is reversed among the young and females. This difference, however, is more striking among the different sex groups. That is, the male respondents from the water project areas tend to be a little more satisfied with their life than the male respondents from the nonproject areas. In contrast to this, among the women it is those living outside the project areas who are more satisfied with their life than the women residing in the water project areas. As we have seen already, more women in the water project areas complain about the hardship of their farm work and they are less satisfied with their farming than those from the nonproject areas. This may suggest that the beneficiaries from the water project areas are not evenly shared by different groups. However, since with the data we have presented so far it is premature to conclude this, we will discuss this problem in the later section again.

The degree of life satisfaction does not seem different between the two SES groups or between the beneficiaries and nonbeneficiaries within each SES group. When we control the village status of the Saemaul movement, beneficiaries are slightly more satisfied with their personal life than the nonbeneficiaries in the developing villages while this trend is reversed in the developed villages. Thus, again our

guess is that the effect of the water project is somewhat more positively felt in the developing villages than in the already developed villages. This was true in the case of the respondents' community satisfaction, too. In Table 56, we noticed that only those beneficiaries living in the developing villages were more likely to express satisfaction with their community than the nonbeneficiaries from the same villages.

4. Some Other Social Psychological Aspects

The aforementioned farmers' opinions about their personal and community situation fail to indicate important attitudes of these rural people concerning the nature of man's condition in society. Thus, we asked respondents and their village chiefs to react to four statements in Table 67 to find out their attitudes toward society in general.

Table 67. The Degree of Anomie by Residents and Leaders

	Residents	Ri-Chiefs
1. Success in Business and Politics Cannot Easily Be Achieved without Taking Advantage of Gullible People.	80%	61%
2. These Days a Person does not Really Know Who He Can Count on.	74	63
3. Nowadays a Person Has to Live Pretty Much for Today and Let Tomorrow Take Care of Itself.	39	29
4. In Order to Get Ahead in the World Today, One is Almost Forced to Do Some Things Which Are not Right.	67	46

As stated earlier, these four items make an anomie (or normlessness) scale. The data in Table 67 suggest that, in matters involving relationships with other people or the possibilities of future improvement, there appears to be widespread feelings of uncertainty, distrust, despair, and normlessness among rural villagers. These feelings of distrust, uncertainty, despair and

hopelessness seem to be somewhat inconsistent with the respondents' overall evaluation of their community situation. However, this seemingly inconsistent response may rather indicate that the evaluation of their specific community is one thing and their feeling about society or the world in general is another thing.

On the other hand, the respondents' attitude toward society in general seems to be related to their specific individual life conditions. We found farmers to be not very satisfied with their personal life situations such as income status, housing conditions, and leisures in their daily life. Thus, it seems to be that those who suffer poor personal living conditions may be more pessimistic and have more negative attitudes toward society than those who enjoy more affluent living conditions. Thus, village chiefs, who are better educated and more affluent, seem to be less pessimistic about their society than ordinary villagers.

On the whole, however, the data in Table 67 suggest that, regardless of class difference, rural residents seem to suffer pessimism or anomie, to use a sociologist's term (Durkheim, 1966). When Durkheim coined that concept of anomie, which involves normlessness, uncertainty, despair and hopelessness in man's condition in society, he was concerned about something more than economic factors. This concern was with rapid social change, which he believed to be responsible for the strain or malintegration of the social system. Durkeim lived in an historical period when the West experienced sudden and rapid social change, owing to the transition from a traditional social system to a modern industrial society. This sudden change was, to a large extent, the consequence of two great revolutions, the democratic and industrial revolutions. These revolutions began to reorder social roles, status, and cultural norms,

and to change traditional systems of authority and community. As many scholars pointed out, in this transitory period anomie has been a common experience in the West.

An age of profound social change is now also upon Korea. During the 1970's many low-income rural areas were exposed to an accelerating process of modernization through the government's intervention in various community development programs. This government's effort to modernize rural areas, along with the overall spill-over effect of industrialization and urbanization, has been the most significant impetus causing rural change in Korea. Rapid social change caused by such external forces as bureaucratization, industrialization and urbanization might have destroyed some of the traditional values and norms, with no new value system being established to suit the newly industrializing society. When people are caught up in the transition from a traditional social system to a modern society, they often experience a sense of confusion, uncertainty, powerlessness and normlessness. Also, many researchers have stated this is particularly true among women. In fact, our data show that this is the case in rural Korea (see Table 69).

However, when we compare the anomie score for the beneficiaries with that for the nonbeneficiaries, no noticiable difference is found. Consistent with the above finding, the only difference in anomie score appears between the ordinary villagers and their cheifs regardless of the project areal difference.

According to Table 69, age, sex, or SES does not change the original pattern. However, sex and SES seem important variables in their own right regardless of the water project. That is, women and lower SES farmers are more anomic than men and higher SES people, respectively. Our finding is consistent with other researchers' finding

Table 68. The Degree of Anomie by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
High	46	48	46	34	35	34
Low	54	52	54	66	65	66
	100%	100%	100%	100%	100%	100%
	(242)	(128)	(370)	(53)	(23)	(76)

Percent Difference = -2% Percent Difference = -1%

Difference of Defference = -1%

Table 69. Amonie by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
High	47	50	48	45	47	46

d.% = -3% d.% = -2%

d. of d. = 1%

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
High	41	43	42	55	56	55

d.% = -2% d.% = -1%

d. of d. = 1%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
High	41	44	42	52	53	52

d.% = -3% d.% = -1%

d. of d. = 2%

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
High	37	49	42	50	47	49

d. % = -12% d. % = 3%

d. of d. = 15%

in America. Srole (1956) reports that anomie as measured by his scale is more prevalent among the lower than among the higher social classes. This hypothesis originated with Merton's (1938, 1957) theory of anomie, which has been supported by many empirical studies (Bell, 1957; Tumin and Collins, 1959; Mizruchi, 1960, 1964; McDill, 1961; Simpson and Miller 1963; Rhodes, 1964). Also, a few studies have shown that lower class people are more resistent to rapid social change perhaps because of their fear of an uncertain future and lack of adaptability in comparison to those of higher socio-economic status (Stephenson, 1968). Regarding sex differences, a few studies have reported that females are more anomic or alienated than males in certain areas (Crowdon, 1970).

By controlling the Saemaul village status, however, a somewhat different pattern emerges. First, contrary to our expectation and previous findings that villagers living in developed villages evaluate their quality of life somewhat more positively than those from developing villages, the data in Table 69 show a tendency for villagers from developed villages to be more anomic than those from the other type of villages. Second while the difference in anomic scores between the beneficiaries and the nonbeneficiaries is negligible in developed villages, the difference between the same two groups is substantial in developing villages. Farmers living in the project areas are significantly less anomic than those from the nonproject areas as far as developing villages are concerned (d = 12%). This finding is more or less consistent with earlier findings regarding farmers' evaluation of their quality of life in developing villages. In brief, beneficiaries residing at developing villages are more positive in the evaluation of their life qualities and less pessimistic about society in general.

Next, we asked our respondents slightly different questions to ascertain how much rural people are alienated from their society or culture. Although it is difficult to discriminate alienation from anomie empirically, these two concepts are conceptually and analytically distinguishable (Kim, 1977). Anomie in its original usage by Durkheim referred to lack of normative regulation and the psychological manifestations of anomie at the individual level are feelings of "pessimism," "dejection," uncertainty and confusion; the behavioral consequence of this could be anomic suicide (Durkheim, 1973: 68). Alienation (identified as egoism by Durkheim) indicates defects in social structure or lack of social integration and the psychological consequences are feelings of isolation, dissociation, meaninglessness, and ultimately "sad depression" (Durkheim, 1973: 73). The behavioral consequence, according to Durkheim, is egoistic suicide, which results from the feeling of estrangement and isolation.

Table 70. The Degree of Social Alienation by Residents and Leaders

	Residents	Re-Chiefs
1. There Are Many Difficulties I Cannot Overcome for Myself.	89%	79%
2. Sometimes Politics and Government Seem so Complicated That a Person Like Me Cannot Really Understand.	89	76
3. Sometimes We Are Forced to Do Something Which We are Really Reluctant to Do.	97	97
4. I Am Not Much Interested in the TV Programs and Newspapers.	88	84

For the measurement of alienation, respondents were asked to react to four questions, the results of which are presented in Table 70.[1/]

1/ Factor analysis was used to discriminate alienation items from anomic items.

According to Table 70, rural people, both villagers and their leaders, are highly alienated from their society and culture. Although village chiefs manifest their feelings of powerlessness, meaninglessness and cultural isolation to a lesser degree than ordinary people, the majority of them feel that they are estranged from and, thus, not a part of their society and culture.

In some ways, this strong sense of alienation among the rural residents is not surprising. In a society which is based on centralism and a bureaucratic system, rural people who are distant from the central government and dominant urban culture would feel easily alienated from their society. This sense of alienation among the rural people may be directly related to the noticiable tendency for young and capable people to move to cities in recent years despite government efforts to improve rural villagers' living conditions through various development programs including the Saemaul movement.

Could the water project have had any impact on people's attitude toward their society? According to data in Table 71, it seems so. Both villagers and chiefs from the project areas express a lower degree of alienation than these from the nonproject areas, although the difference between villagers from the two areas is not significant.

A similar tendency is observed among the young, female and lower SES farmers. That is, among these three groups, beneficiaries tend to be less alienated from their society than nonbeneficiaries living off the project areas. Notice, however, that if we discard the area difference, the younger people, males and higher SES persons are less alienated than the old, female and lower SES groups. Other studies indicate that older people more often experience physical illness and loss of family members and suffer from social isolation and

Table 71. The Degree of Social Alienation by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
High	68	72	69	49	61	53
Low	32	28	31	51	39	47
	100%	100%	100%	100%	100%	100%
	(242)	(128)	(370)	(53)	(23)	(76)
	Percent Difference = 4%			Percent Difference = 12%		
	Difference of Defference = -8%					

Table 72. Social Alienation by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
High	76	73	75	61	72	65
	d.% = 3%			d.% = -11%		
	d. of d. = 14%					

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
High	65	71	67	73	73	73
	d.% = -6%			d.% = 0		
	d. of d. = 6%					

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
High	64	65	64	74	82	76
	d.% = -1%			d.% = -4%		
	d. of d. = 3%					

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
High	65	75	70	69	69	69
	d. % = -10%			d. % = 0		
	d. of d. = 10%					

depression (Cumming and Henry, 1961; Lystad, 1972); this would tend to increase their feelings of alienation. This relationship between age and alienation is consistent with Durkheim's (1966) finding that the rate of egoistic suicide is higher among the old than among the young. The finding that males are less alienated from their society than women is not a surprising one in such a society where males are powerful and dominant over women.

The Saemaul village status also specifies the relationship between the status of farmers (beneficiaries vs. nonbeneficiaries) and alienation. According to Table 72, beneficiaries are less alienated than nonbeneficiaries in developing villages while this difference is absent in developed villages. This finding is consistent with the earlier findings that the water project had a more positive impact on beneficiaries in developing villages than those from developed villages.

Table 73. The Degree of Community Identification by Residents and Leaders

	Resident	Ri-Chiefs
1. I Take Bride in the Success of a Neighbor or His/Her Children.	94	97
2. I Am Important As a Person in This Community	38	72

The above two social psychological variables are used to measure the respondent's attitude toward men and society in general and thus they do not reflect our respondents' attitude toward their community specifically. We wanted to know how much rural residents identify themselves with their village. In a way, the degree of the residents' identification with their community indicates how much they are integrated into their community.

Two questions concerning community identification were asked of respondents. The result is presented in Tables 73, 74, and 75. According to

Table 74. The Degree of Community Identification by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
High	46	42	44	83	74	80
Low	54	58	56	17	26	20
	100%	100%	100%	100%	100%	100%
	(242)	(128)	(370)	(53)	(23)	(76)

Percent Difference = 4% Percent Difference = 9%

Difference of Defference = -5%

Table 75. Community Identification by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
High	52	33	47	40	47	43

d.% = 19% d.% = -7%

d. of d. = 26%

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
High	48	46	47	41	35	39

d.% = 2% d.% = 6%

d. of d. = 4%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
High	58	58	58	28	18	25

d.% = 0 d.% = 10%

d. of d. 10%

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
High	59	39	50	40	45	41

d. % 20% d. % = -5%

d. of d. = 25%

the data in Table 73, ordinary villagers show somewhat inconsistent and conflicting attitudes toward their community whereas village chiefs express more or less consistent opinion about their community. The majority of the village leaders manifest a rather strong sense of identification with their villages. As for the villagers, however, a strong sense of community identification is expressed in one item but not in the other item. Only 38 percent of ordinary residents agree with the statement, "I'm important as a person in this community." Thus, the data suggest that ordinary rural farmers have somewhat conflicting sense of identification with their community. Their identification with the community is rather strong on the one hand, but their community dientification is weak when it is related to their personal self-image.

The impact of the water project on this aspect of social psychological status is not significant among ordinary villagers. But, among the village chiefs, beneficiaries show a slightly higher sense of integration into their community.

When we control socioeconomic background and village status, a somewhat consistent pattern emerges among the old, female and lower SES beneficiaries and among those beneficiaries who are from the developing villages. That is, beneficiaries who are old, female and higher SES are more integrated with their community than nonbeneficiaries with the same background. Also, it is seen that beneficiaries from developing villages are more integrated than nonbeneficiaries from the same villages. Thus, a tendency is observed that the water project had a positive impact on certain groups of people living in the project areas but not on other people, indicating that the project benefit is not shared evenly among all residents.

Finally, we wanted to assess among Korean rural people the authoritarian personality syndrome, as conceived by Adorno and other (1950) in a famous series of studies at the University of California. The concept of authoritarianism represents an attempt to link deep-seated personality dispositions with the socially significant forms of belief and social behavior involved in adhering to a rigid and dogmatic ideology and in adopting an uncritical and submissive attitude toward moral authorities that are idealized by his in-group. Some aspects of the authoritarian personality syndrome were identified as ethnocentrism, political, economic and social conservatism, rigid conception of sex roles, concern for status and a cognitive style characterized by rigidity

Table 76. The Degree of Authoritarian Personality Syndrome by Residents and Leaders

	Residents	Ri-Chiefs
1. Human Nature Being What It Is, There Must Always Be War and Conflict.	88	88
2. What Young People Need Most of All Is Strict Discipline by Their Parents.	59	51
3. Women Should Stay Out of Politics.	33	26
4. Most People Do Not Get Ahead Because They Have Insufficient Will Power.	40	28
5. An Insult to My Honour Should Not Be Forgotten.	73	66
6. Men Can Be Trusted More Than Women.	64	72

For our study, six items presented in Table 76 are used to measure authoritarian personality. In four items both villagers and their leaders manifest a somewhat strong tendency of authoritarianism while in the other two items the trend is reversed. This inconsistency may be related to the fact that our respondents are somewhat confused or anomic

in their attitude toward men and society in general, as noted earlier. An alternative interpretation might be that farmers are still conservative and rigid about certain aspects of their life but liberal in other aspects as a result of their exposure to new ideas and values mainly coming from urban and industrial centers. For example, the fact that the majority do not agree with the statement, "women should stay out of politics," may be the result of recent social changes that occurred in rural areas. The influence of the modernization of Korea in general and the Saemaul movement in particular that encouraged women's participation in labor and social activities may be one factor responsible for the change in farmers' attitude toward women's participation in politics. Perhaps, this is why more village chiefs are less against women's participation in politics than ordinary villagers. And yet, the majority feels that men can be trusted more than women and this belief is stronger among the leaders than villagers. This may indicate that rural people nowadays are less conservative in certain aspect of their society (e.g., sex role) as a result of the modernization influence while they are still highly conservative about other aspects of their life regardless of the industrialization and urbanization that have been sweeping the whole country.

Would the AID project be related to this social psychological aspect of Korean rural people? The data in Tables 77 and 78 do not provide us with a definite answer. But a trend is seen that beneficiaries are slightly less authoritarian than nonbeneficiaries as far as ordinary farmers are concerned. But among village leaders, the trend is reversed. The village chiefs in the benefit areas are more authoritarian than those from nonproject areas. We have seen an inconsistent pattern among the six items of the authoritarian index presented in Table 76. Of

Table 77. The Degree of Authoritarian Personality Syndrome by Villagers and Their Leaders

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Members in Project Areas(I)	Residents in Non-project Areas(IV)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-project Areas	Total
High	55	60	57	47	30	42
Low	45	40	43	53	70	58
	100%	100%	100%	100%	100%	100%
	(242)	(126)	(368)	(53)	(23)	(76)

Percent Difference = -5% Percent Difference = 17%

Difference of Defference = -22%

Table 78. Authoritarian Personality Syndrome by Age, Sex, SES and Saemaul Village Status

1. Age	Old (Over 50)			Young (20-49)		
	I	IV	Total	I	IV	Total
High	54	68	58	57	57	57

d.% = 14% d.% = 0

d. of d. = 14%

2. Sex	Male			Female		
	I	IV	Total	I	IV	Total
High	53	60	55	61	62	61

d.% = -7% d.% = -1%

d. of d. = 6%

3. SES	High SES			Low SES		
	I	IV	Total	I	IV	Total
High	51	58	53	62	64	63

d.% = -7% d.% = -2%

d. of d. = 5%

4. Saemaul Village Status	Developing Villages			Developed Villages		
	I	IV	Total	I	IV	Total
High	48	54	50	59	66	61

d. % = -6% d. % = -7%

d. of d. = 1%

course, this inconsistency among the items may indicate that not all six items measure authoritarianism in rural Korea. On the other hand, however, as discussed already, the inconsistent pattern may arise from the fact that rural people are caught up in a transition period between traditionalism and modernism as a result of rapid urbanization and industrialization.

Among ordinary villagers, however, a somewhat consistent pattern is seen in that beneficiaries who are old, male and higher SES persons are less authoritarian than nonbeneficiaries with the same characteristics. Also, consistent with anomie and alienation, males and upper status persons are less authoritarian than females and lower SES people. However, interestingly there is no difference between the age groups, as far as beneficiaries are concerned. Only among nonbeneficiaries do older people show a higher degree of authoritarianism than younger people.

Controlling the village status we see again that beneficiaries are slightly less conservative and authoritarian than nonbeneficiaries in both developing and developed villages. Thus, as far as authoritarian personality is concerned, it seems that the Saemaul movement is irrelevant to this personality syndrome.

VI. ORGANIZATIONAL AND MANAGERIAL ASPECT OF THE WATER PROJECT AND ITS DIRECT IMPACT

A. The AID Water Project and Role of Farmland Improvement Association

Agricultural water resource development in Korea is achieved mainly through two channels (Oh, 1978). Small scale irrigation systems that have less than 50 hectares of service area are planned and constructed by city and county administrative offices with public funds. In this case no financial burden is imposed on the farmers because the systems are constructed by local public funds. The small reservoirs constructed through this channel are handed over to the farmers and managed by the farmers themselves through their autonomous organizations.

The other type of the agricultural water resource development plan is for the construction of larger irrigation systems that have more than 50 hectares of service area. The larger irrigation facilities are constructed by the Ministry of Agriculture and Fisheries (MAF) through the Agricultural Development Corporation (ADC). With the completion of the water projects they are handed over to the Farmland Improvement Associations for operation and management. The AID water project falls into this case. FLIA is a legal organization supervised by the Ministry of Agriculture and Fisheries. The FLIA members consist of irrigators within the service area but managing staffs of FLIA units are appointed by the government. The heads of the FLIAs that cover more than 5,000 hectares are appointed by the Minister of MAF, and those of less than 5,000 hectares by provincial governors.

The role of the FLIAs includes irrigation in the regions under its supervision, construction of drainage systems, maintenance and operation of facilities, land consolidation, improvement and development

of farm land and water control. In order to carry out these roles or functions, of course, FLIAs need a budget which is based on FLIA members' water fee (called a membership fee by the FLIA officers). However, since FLIAs require year-round maintenance and operation expenses and farmers pay water fees to the FLIA after harvest, the FLIA is often forced to borrow from banks (mainly from the National Agricultural Cooperatives Federation) at the high commercial interest rates. Thus, a burden is passed on to the farmer through higher water fees.

B. The FLIA Members' Opinions about Some Aspects of the AID Water Project Implementation and Its Management

Before the implementation of the AID water project the farmers in the project areas had to rely partly on rain falls or other natural water resources and partly on small scale traditional water facilities such as Bo (weirs), small reservoirs (tanks) and pumping systems. According to the information collected by our survey, 49 percent of the farmers (the FLIA members) stated that they did not have any man-made water facilities 5-6 years ago. About 30 percent of them said their major farming water source was Bo (weirs), 8% reservoir, 2% pumping systems, and 12% others.

Thus, over one third (38%) of the present FLIA members belonged to Soori-Ke, which is a non-formal grass root organization created by rice farmers who have land within the service area of a confined irrigation system. The prime objective of this organization is to maximize rice production by utilizing the irrigation facilities and its main function is to assess necessary costs and to distribute water to the members (Oh, 1978). We found out, however, that even after the completion of the AID water project about 33 percent of the present FLIA members keep their old membership to Soori-Ke, indicating that these

people use water from both the FLIA-controlled water facilities and the traditional irrigation systems.

When we asked our respondents who the AID project water facilities' managers are, most of them(91%) said they are FLIA officiers (24%) or managers appointed by the FLIA office (67%). Only two percent of our respondents indicated that water managers are just ordinary villagers. When we asked who should take charge of water control, still many of them (79%) said that the FLIA officers or their appointee should do the job. But, this time about 12 percent of the respondents expressed their desire that the ordinary farmers from their own village should be responsible for the water management and control. This suggests that some of the farmers are not satisfied with the FLIA-appointed water managers and they may want to select water managers by their own will.

Perhaps some of the villagers do not want the centrally controlled water management. An indication of the centrally controlled mechanism related to the water control is seen in the fact that more than a half (56%) of the FLIA members said they are not aware of or intimate with their local FLIA officers. Furthermore, 71 percent of these farmers said FLIA officers seldom visit their villages and 85 percent said that they seldom visit the FLIA office. Thus, our data indicate that interaction between the farmers and the FLIA officers is limited.

From the beginning of the project, in fact, the farmers' opinion was not fully reflected on the project and their participation was limited. When we asked our respondents (the FLIA members) to what extent they think their opinion was reflected in the project, only 64 percent of the villagers and 76 percent of the village chiefs said their opinion was fully reflected. The rest claimed either their opinion was not reflected or only partly reflected (see Table 79). The people whose

Table 79. In What Degree Do You Think the Residents' Opinion Was Reflected in the Project?

	Age		Sex		SES		Village Status			
	Old	Young	Male	Female	High SES	Low SES	Developing Villages	Developed Villages	Total	Ri-Chief's Evaluation
Fully Reflected	65	64	39	33	50	52	45	54	64	76
Partly or Hardly Reflected	35	36	61	67	50	48	55	46	36	24
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 80. Why Did You Sign on the Project Contract?

	Age		Sex		SES		Village Status			
	Old	Young	Male	Female	High SES	Low SES	Developing Villages	Developed Villages	Total	Ri-Chief's Evaluation
Pursuaded to Signed Voluntarily	53	49	53	48	50	52	54	45	52	56
Didn't Sign on Forced to	47	51	47	52	50	48	46	55	48	44
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

opinion was claimed to be least reflected are women respondents. That is, only 33 percent of them said their opinion was well reflected.

This finding is consistent with our respondents' claim that some of them did not even sign the water project contract. According to Table 80, twenty seven percent of the present FLIA members and 26 percent of the village chiefs said that they never signed the project contract. Twenty one percent of the farmers and 17 percent of the village leaders even claimed that they were forced to sign the contract. Thus, only a little over half of the villagers (56%) said they were pursuaded to sign or voluntarily signed the project contract.

The limited role of the residents is seen not only in the decision-making process but in the project construction work. Only 37 percent of the residents and 30 percent of their village leaders said that they participated in the construction work for the water project. But most of these people who said they participated in the construction did not take part in the paid construction work but work surrounding their farm land improvement in relation to the project.

The data just presented indicate that mainly due to bureaucratic centralism and hierarchical social structure farmers were not allowed to participate in a substantial degree in the decision-making on project design or execution. Nor did they have much to say about the operation of their FLIA and its water control. The FLIA functions well on construction and maintenance of the water facilities but does little for the civic development such as mobilizing the community manpower and other resources for the development of community as a whole.

As pointed out earlier, the FLIA is operated and financed by the members' water fee. Most of the members, however, did not seem to know what portion of their water fee is for the repayment to the government

to clear their loan used for the water project and what portion is for other purposes such as water they used, management of the FLIA itself, or maintenance and rehabilitation of damaged facilities. This is so mainly because they are not informed in detail. Without knowing why they pay a certain amount of their water fee, however, most of the members complained that their water fee is too high. Sixty three percent of the member residents said the water fee is too high and 25 percent said it is somewhat high. Only 12 percent said it is about right amount and nobody said it is low. A similar response was expressed by their village leaders, too.

But when they were asked how adequate their current irrigation facilities are, the majority (66%) of the beneficiaries said they are adequate while 42 percent of those nonbeneficiaries from the nonproject areas said so. These data, thus indicate that a substantial number of the FLIA members (34%) still are not satisfied with their new water facilities.

Table 81. The Degree of Paddy Land Irrigation by Project and Non-project Areas between 1975 and 1980

(percent)

The Degree of Irrigation	Project Areas		Non-project Areas	
	1975	1980	1975	1980
0	57	20	51	38
1 -25%	2	2	2	3
25-50%	5	5	10	10
50-75%	6	11	15	17
75-99%	6	9	3	6
100%	24	53	19	25
Total	100% (276)	100% (284)	100% (146)	100% (148)

This subjective evaluation of the adequancy of water resources and facilities is somewhat consistent with the following objective data. According to Table 81 in both project and nonproject areas the degree of irrigation for the paddy land has increased during the past 5-6 year period. But the improvement of the paddy land irrigation is much more substantial in the project areas. For example, the portion of fully irrigated paddy land in the project areas was 24 percent 5-6 years ago whereas it is 53 percent in 1980. Looking at it differently, more than a half (57%) of the paddy land was not irrigated at all in the project areas 5-6 years ago, but now only 20 percent of the paddy land is free from any type of irrigation. However even in the AID water project areas 27 percent of the farmers stated that the degree of irrigation for their paddy land is less than 50 percent while 62 percent said their land is 75 percent irrigated.

Finally, we wanted to know how the respondents and their leaders evaluate the AID water project in terms of its contribution to community development or family income status. First, we asked the respondents, "To what extent do you think the AID project contributed to your family income status?" According to Table 82, the majority of the villagers and their chiefs believe that the project contributed to the increase of their family income substantially (very much or much, 72% of the villagers and 73% of the chiefs). Comparing the FLIA members whith the nonmembers in the project areas, the larger number of the FLIA members (79%) said the project contributed to their income status much or very much, 40 percent of the nonmenbers agreed. This finding remains about the same even when age, sex, SES and the Saemaul village status were held constant.

Table 82. To What Extent Do You Think the Project Contributed to the Increase of Your Income?

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Member (I)	Non-Member (II)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-Project Areas	Total
Very Much	47	12	41	46		
Much	32	28	31	27		
Somewhat	7	4	6	6		
Little	9	16	10	10		
Seldom	6	41	12	12		
	100% (235)	100% (51)	100% (286)	100% (52)		

Table 83. Evaluation of the Project Contribution to the Income Increase by Age, Sex and SES of the Respondents and Saemaul Village Status

Age	Old (Over 65)			Young (20-49)		
	I	II	Total	I	II	Total
Very Much	48	19	42	47	4	40
Much	33	19	30	31	38	32
Somewhat or Little	19	63	28	23	58	28
	100%	100%	100%	100%	100%	100%

Sex	Male			Female		
	I	II	Total	I	II	Total
Very Much	48	10	42	46	14	40
Much	33	28	32	29	27	28
Somewhat or Little	19	62	26	25	59	32
	100%	100%	100%	100%	100%	100%

SES	High SES			Low SES		
	I	II	Total	I	II	Total
Very Much	49	14	43	45	9	38
Much	31	29	31	32	26	31
Somewhat or Little	20	57	26	23	65	31
	100%	100%	100%	100%	100%	100%

Sameaul Village Status	Developing (Self-Reliant) Villages			Developed (Self-Sufficient) Villages		
	I	II	Total	I	II	Total
Very Much	47	19	39	48	4	42
Much	32	26	30	31	29	31
Somewhat or Little	21	56	30	21	67	27
	100%	100%	100%	100%	100%	100%

Table 84. To What Extent Do You Think the Project Contributed to the Community Development?

	Residents' Evaluation			Ri-Chiefs' Evaluation		
	Member (I)	Non-Member (II)	Total	Ri-Chiefs in Project Areas	Ri-Chiefs in Non-Project Areas	Total
Very Much	60	37	55	62		
Much	26	28	27	23		
Somewhat	6	4	5	4		
Little	6	15	8	4		
Seldom	2	17	5	8		
	100% (235)	100% (54)	100% (289)	100% (52)		

Table 85. Evaluation of the Project Contribution to Community Development by Age, Sex and SES of the Respondents and Saemaul Village Status

Age	Old (Over 65)			Young (20-49)		
	I	II	Total	I	II	Total
Very Much	61	46	58	59	27	54
Much	27	25	27	26	31	27
Somewhat or Little	12	29	16	15	42	20
	100%	100%	100%	100%	100%	100%

Sex	Male			Female		
	I	II	Total	I	II	Total
Very Much	61	43	58	57	29	51
Much	27	27	27	26	29	27
Somewaht or Little	13	30	15	17	42	22
	100%	100%	100%	100%	100%	100%

SES	High SES			Low SES		
	I	II	Total	I	II	Total
Very Much	60	29	55	59	46	56
Much	28	36	29	24	19	23
Somewhat or Little	12	36	16	17	35	21
	100%	100%	100%	100%	100%	100%

Saemaul Village Status	Developing (Self-Reliant) Villages			Developed (Self-Sufficient) Villages		
	I	II	Total	I	II	Total
Very Much	60	48	57	59	24	55
Much	27	28	27	26	28	26
Somewhat or Little	13	24	16	14	48	19
	100%	100%	100%	100%	100%	100%

When we asked, "To what extent do you think the project contributed to the community development?" again the majority (82%) of the villagers and their chiefs (85%) said its contribution is substantial. In contrast to the responses related to the family income status, however, this time even the majority of the villagers (65%) who are not direct beneficiaries of the water project said that the project contributed to the overall community development to a significant degree.

As expected, however, a much larger portion of the FLIA members (86%) than the nonmembers expressed their evaluation of the project positively in terms of its contribution to the community development. This trend remains about the some when age, sex, SES and the village status were controlled. However, comparing the beneficiaries' evaluation with the nonbeneficiaries' evaluation by the village status within the project areas, the beneficiaries' evaluation of the project is about the same regardless of village status. But, among the nonbeneficiaries, those living in the developing villages evaluate project's contribution to the community development much more positively than the nonmembers residing at the developed villages. This indicates that, on the whole, the project is more positively evaluated by the residents of the developing villages than those of the already developed villages which are located within the AID water project areas.

To summarize, the majority of the residents of the project village assess the impact of the project on their family income and community development positively whether they are the FLIA members (the direct beneficiaries) or not. Particularly, the residents of the developing villages evaluate the water project more positively than those who live in the developed villages.

VII. SUMMARY AND CONCLUSION

A. The Context of the Study

By the early 1970s the Korean government was ready to launch a nationwide rural and agricultural development program geared to enhance the quality of life of rural people on the one hand and to improve the production of rice and barley on the other. During the 1960s the production of food-grains could not meet the rising demand, so that imports of staple food-grains rose continuously even though the agricultural sector grew at an annual average rate of 4.5 percent. During the same period industrial growth had climbed from 9.1 percent of GNP to 21.1 percent and the overall economic growth rate was almost 10 percent per annum.

By the time the Second Five Year Economic Development Plan was completed in 1971, the government had become deeply concerned with the growing grain trade deficit and the increasing income disparity between urban and rural households. This growing food deficit and income disparity were two major factors which caused the government to put much more emphasis on agricultural development in the Third Five-Year Economic Plan of 1972-1976. This plan called for investments in the agricultural sector nearly four times as large as the Second Economic Plan of 1966-1971. Land and Water Development projects received the largest share (27.5%) of total government investments in and loans to the agriculture sector.

Along with this agricultural policy, the government launched the Saemaul movement in 1972 to upgrade the quality of village life by mobilizing farmers on a national scale. Although total government investments in the Saemaul movement and its projects have been quite small as a portion of total budget expenditure, the share of it during 1972-76 which was allocated to improve the rural living environment constituted was about 22 percent, the second largest share of the total agricultural investment.

The AID water project was part of the nationwide agricultural and rural development program. The major goals of the project were to improve production of rice and barley and subsequently to increase rural farmers' income. After the completion of the AID water projects, research teams which visited Korea found that rice yields had increased significantly and that the increase of farmers' income had met the originally-set target as a result of the implementation of the water projects.

The goal of our social survey was to assess the overall social impact of the projects on beneficiaries and related people. From the beginning we learned that it is a very difficult task to accomplish, especially with no relevant baseline data with which to compare our ex post data. However, a cross-sectional analysis of our data reveals that indicators that reflect changes related to the water project directly or indirectly are available throughout the data analysis. While the social impact indicators used are not always ideal ones, the consistent pattern of our findings suggests that they are reasonably good proxies.

5. Summary of Findings

1. Village Level Change

(1) A little less than 7 percent of the surveyed households in 1975 migrated to other areas, mainly to large cities to seek new jobs. This loss of households that occurred between 1975 and 1980 in the project area was larger than that in the nonproject areas. This was probably so mainly because the project areas were more deprived areas than the non-project areas.

(2) A larger increase of per farm household acreage is seen in the areas of the water project, which seems to have brought out more lands available, than in the nonproject areas during the past five years. As far as the patterns of agricultural practices are concerned the portion of paddies

made in the project areas is much higher than that in the nonproject areas. This difference seems to indicate an effect of the water project, in part.

2. Change in Demographic and Socioeconomic Life Conditions

(1) Comparing the project area residents with the nonproject area residents, the latter have a somewhat higher level of education than the former. The portion of children who are away for their education is higher in the nonproject area villages than in the project areas. Consistent with this, the educational level of the eldest sons in the nonproject areas is higher than that in the project areas. Also, the portion of those who are away from their farmily for employment is higher in the project areas than that in the nonproject areas.

In brief, people in the nonproject areas as a whole seem to be better off than those in the project areas. They are somewhat younger, better educated and could afford a better education for their children than those in the project areas. This implies that the villagers in the water project areas were more deprived earlier than those in the nonproject areas. As far as the demographic characteristics are concerned, the effect of the AID water project will have to be seen in the future.

(2) Comparing the FLIA members with the nonmembers in the project areas, the former is slightly younger and better off than the latter. This means the recipients of the water project were not those who were the most deprived poor people in the project villages before the project.

(3) Comparing the FLIA members in the project areas with the nonmembers in the nonproject areas, the former earns a little more than the latter, indicating that the water project had a positive impact on family income.

(4) A small number of FLIA members in the nonproject areas are better off than any other group members. That is, those farmers who belonged to FLIA and thus benefited from better water resources from an earlier time are the most well-to-do-farmers. This suggests that the socioeconomic discrepancy between the FILA members and nonmembers will be widened unless some measures to prevent this are taken in the near future.

3. Perceived Quality of Life and Its Change in Rural Villages

(1) Environmental Dimension

a) A consistent pattern of findings regarding the environmental dimension of the quality of life indicators emerged. The beneficiaries who are the FLIA members in the AID project areas evaluate such environmental conditions as transportation conditions, market facilities, educational facilities and medical facilities and services in their communities more favorably than those nonbeneficiaries living in the villages outside the project areas. This pattern did not change even when third variables such as age, sex, SES and the developmental status of the villages in terms of the Saemaul programs were held constant.

b) The largest difference between the beneficiaries and the nonbeneficiaries in their ratings of the environmental conditions is seen in the transportation conditions. This finding may stem from the fact that, with the construction of the new water facilities, road conditions and other transportation systems improved more in the project areas than in the nonproject areas.

c) There is an indication that the Saemaul movement had some impact on environmental conditions except for medical services and facilities. Furthermore, our data suggest that the AID and the Saemaul projects had jointly affected such environmental conditions as transportation conditions, market facilities and educational facilities.

(2) Social Structural and Environmental Dimension

a) As far as our respondent's social life is concerned, the AID water project and even the Saemaul movement does not seem to have had much significant impact. There is a weak tendency that the beneficiaries evaluate the social conditions for the aged and their interaction with relatives a little more positively than the nonbeneficiaries. No difference between the people from the project areas and those from the nonproject areas was found in other aspects of social life.

b) The beneficiaries from the developing villages showed more favorable attitudes toward some aspect of their social life, e.g., interaction with relatives and community participation than the nonbeneficiaries from the same villages. This finding is more or less consistent with the fact that in the developing villages, slightly more people from the water project areas are satisfied with their overall community life than the nonbeneficiaries. Thus, there are some indications that the AID water project had a positive impact on social life of the residents who live in the developing villages.

c) The above finding is consistent with the proportion of irirgated paddy land. The proportion of irrigated paddy land in the project areas is 78 percent in comparison to 61 percent in the nonproject areas. The larger portion of irrigated paddy area in the project areas than in the nonproject areas is a direct effect of the water project. The proportion of the consolidated area in the project areas is also twice as big in comparison to the nonproject areas.

d) The effect of the AID water project is also seen in the fact that 79 percent of the respondents who are residing in the project areas belong to FLIA in comparison to 18 percent in the nonproject area.

e) The degree of progress of various Saemaul projects in the water project areas is somewhat higher than that in the nonproject areas, indicating that the villages in the project areas seem to have received more governmental support for their community development along with the implementation of the water project.

(3) Individual Dimension and Some Other Social Psychological Asepcts

a) About half of the rural residents and their village chiefs feel they are satisfied with their housing conditions. Comparing our respondents from the water project areas with those from outside the project areas, the former (beneficiaries) seem more satisfied with their housing conditions than the latter. In particular, the impact of the AID water project on the rural project's housing conditions was felt greater in the developing villages than in the developed villages.

b) We also found it out that, as far as the housing conditions are concerned, the Saemaul programs had some positive impact, too. Thus, it seems that the Saemaul project and the AID water project had a joint effect on the housing conditions in the water project areas.

c) When we examined other personal aspects of the life quality of the rural residents such as farm work satisfaction, hardness of farm work and the evaluation of their income status, no significant difference was found between the beneficiaries and nonbeneficiaries. However, our data indicate that, among those residents who reside in the developing villages, more beneficiaries are satisfied with their income status than nonbeneficiaries. This seems to indicate that, as far as the income status is concerned, the effect of the AID project is felt most in the developing villages.

d) The data indicate that while male beneficiaries seem to be a little more satisfied with their farm work than males from outside the

project areas, the direction is reversed among the female respondents. Furthermore, women in the water project areas feel less satisfied with their farming than those from the nonproject areas. These findings may result from the fact that women in the project areas had to be more involved in farm work than before the project as a consequence of expanded arable land and farming resulting from the implementation of the water project.

e) Consistent with the above findings, beneficiaries are slightly more satisfied with their overall personal life than the nonbeneficiaries only in the developing villages. Thus, again it seems that the effect of the water project is more positivly felt in the developing villages than in the developed villages. Comparing the male respondents with the females, we found it out that while the male respondents from the water project areas tend to be more satisfied with their life than the male respondents from the nonproject areas, among the women it is those living outside the project areas who are more satisfied with their life than the women living in the water project. This suggests that the benefits from the water project are not evenly shared by different groups, especially by different sex groups.

f) Our data also indicate that the difference in anomic scores between the beneficiaries and the nonbeneficiaries is substantial in developing villages but negligible in developed villages. Farmers living in the project areas are significantly less anomic and pessimistic than those from the nonproject areas as far as developing villages are concerned.

g) Similarly, beneficiaries are less alienated and more integrated than nonbeneficiaries in developing villages while this difference is absent in developed villages.

This finding is consistent with the earlier findings that the water project had a more positive impact on beneficiaries in developing villages than those from developed villages.

4. Organizational and Managerial Aspect of the Water Project and Its Direct Impact

(1) The majority of FLIA members seem satisfied with the fact that the FLIA officers or their appointee take charge of water control. But, about 12 percent of the respondents expressed their desire that ordinary farmers from their village should be responsible for the water management and control.

(2) However, more than of a half (56%) of the FLIA members said they are not aware of or intimate with their local FLIA officers who manage and control their water facilities. This indicates that interaction between the farmers and the FLIA officers is limited because of the centrally controlled organizational mechanism related to the water management.

(3) From the beginning of the project the farmers' opinion was not fully reflected on the project and their participation was limited. In particular, the people whose opinion was claimed to be least reflected were women respondents. This finding is consistent with our respondents' claim that some of them (26%) did not even sign the water project contract.

(4) While the FLIA is operated and financed by the members' water fee, they are not informed in detail about the management of the FLIA. For instance, most of the members did not seem to know what portion of their water fee is for the repayment to the government to clear their loan used for the water project and what portion is for other purposes such as water they used, management of the FLIA itself, or maintenance and rehabilitation of damaged facilities.

(5) The majority of the members, however, complained that the water fee is too high. But the majority of them said the current irrigation facilities are adequate for their farming while about one third of them still are not satisfied with their new water facilities.

(6) The majority of the villagers and their chiefs believe that the project contributed to the increase of their family income and the community development. Particularly, the residents of the developing villages evaluate the water project more positively than those who live in the developed villages.

C. Conclusions and Policy Implications

Korea has experienced a great social change in recent years along with its rapid industrialization. During the 1970s many low-income rural areas were exposed to an accelerating process of modernization through the government's intervention in various community development programs. The government's effort to upgrade the quality of rural life, together with the overall spill-over effect of industrialization, has brought great progress to rural areas.

However, social development or progress is a value-ladden and relative concept. A particular type of social change can be regarded as either progress or regress depending on what standard or measure is taken. For example, the rise of the rural family's income status may be one thing and the implementation of the water project by bureaucratic centralism which did not allow farmers and their wives to participate in any significant degree in the decision-making on project design or execution is another thing, depending on how one looks at it. However, if economic success is the most important goal to be achieved, one can conclude that Korean bureaucratic centralism worked well for rural areas.

It should be noted, however, that even economic success of any particular development project and its impact on people is only a relative concept. For instance, even if the AID project has contributed to the increase of rural families' income and to the overall community development as our data reveal, farmers' dissatisfaction with their lives and villages would not necessarily decrease unless the income disparity between them and urban dwellers can be resolved. We have found out that the majority of farmers are not happy with their present income status even though they acknowledged that their income had increased in the past few years. This stems much more likely from the fact that the income disparity between rural and urban households, which had been reduced substantially by 1977, has been widened again since 1978 (Choe, 1979).

Thus, unless the central government's effort and concern is redirected to rural people to achieve economic equity right away, the positive effect of the AID water project will be forgotten by farmers pretty soon. Furthermore, our data indicated that the majority of rural residents were not happy with their housing conditions, leisure and recreation, farm work conditions and medical services or facilities in their residential areas. Considering all of these factors, it is not surprising to find that rural villages have been losing population in recent years especially from the young and educated groups.

There is currently a widespread feeling among rural people that they have been neglected despite so many success stories surrounding the Saemaul movement in rural villages. Our data reveal that feelings of confusion, uncertainty, powerlessness are commonly shared by rural people and this is particularly true among women. It is true that farmers have seen an improvement in their quality of life and social environment

partly due to the community's development projects and partly due to the spill-over effect of national growth. Nevertheless, they seem somewhat confused and dissatisfied with their lives. This disenchantment may be caused by many factors. We pointed out that rapid social change along with bureaucratization, industrialization and urbanization could be one of those causal factors. Another factor may be rapidly rising expectations. That is, with the completion of many community development projects or on-going programs, farmers' hopes rise more rapidly than reality. Thus, rapidly rising expectations may have caused farmers to feel less improvement of their living standard than what has actually happened or is happening. The rising expectations can be seen in the fact that over 70 percent of rural residents would like to send their children to college. In fact, we found out that when farmers get extra income from their farming, they spend it first on their children's education.

Or, farmers may feel dissatisfied with their overall life conditions and, in particular, with governmental policy (77% of our respondents manifested dissatisfaction with the government's agricultural policy) mainly because now they regard urban people as their reference group. Thus, when they compare their lot with that of urban people, they feel deprived. In fact, our data indicate that only a few farmers (about 4% of our respondents) would like to see their children become farmers. This is why they desire to sent their children to college if they can.

Thus, although the finding that farmers suffer dissatisfaction, powerlessness, normlessness and confusion to some degree should not conceal the fact that their objective life conditions have improved during the past few years, the "relative deprivation" felt by farmers should be heeded by the central government's policy makers. After all, equity — economic and social — is the key for social stability and development.

The problem of equity is particularly relevant to the goal of the AID project. Although our data reveal that the majority of farmers in the project areas benefited directly from the water project, a little over one fifth of the households were excluded from direct benefit. A small portion of these households was excluded from the recipient group because they had good natural water resources. However, the rest were excluded because they either did not own any paddy land or their land was not located within easy reach of the new water facilities. This finding has very important policy implications. That is, the socio-economic discrepancy between the FLIA members and nonmembers in the water project areas will be widened unless some measures to prevent this are taken in the near future.

Equally important is the problem of equity between men and women in rural Korea. Our data indicate that male beneficiaries evaluate the nature of their farm work more positively than those male farmers who live outside the project areas. With better water resources and facilities resulting from the AID water project, the male farmers in the project areas may feel that their work is easier now than before. In contrast to this, a larger proportion of females claim that they suffer more from hardship of farm work in the water project areas than in the nonproject areas. Thus, it seems natural that women living in the water project areas express more dissatisfaction with their farming than those from the nonproject areas. Why would this be the case? Our observation is that women in the project areas had to be more involved in farm work than before the project as a consequence of expanded arable paddy land and farming resulting from the implementation of the AID water project on the one hand and the labor shortage caused by young people's migration to cities on the other hand.

Furthermore, there is some evidence that the water project did not improve rural women's status economically or socially. They have been excluded thoroughly from the water project plan and execution. Their participation in the daily family decision-making process has not been promoted. The Saemaul movement has done little for the enhancement of women's social status. Nor is there any evidence that women benefited equally from greater farming income. And there is no sign yet that sex inequality will disappear in the near future despite the Saemaul movement, the AID water project, and all other on-going community development programs in rural Korea.

If the goal of any community development is to upgrade people's quality of life and to promote the welfare of society as a whole, policy makers and development program planners should design their policy and programs to reduce inequalities among people first. If the benefit from any development project is not shared equally by people, a source for social tension and disorganization may result.

The aforementioned statements are highly value-ladden. Nevertheless, if there is any truth in them, the AID project has not been an unqualified success in Korea. It has met the original goal of increasing food grains, particularly rice, and has brought about a subsequent rise in farm household incomes. It also had many other positive social impacts on rural people. And yet, it has also created a source of increasing inequalities among villagers. It has helped to strengthen FLIA's organizational structure and functions, but it also created a bigger bureaucracy from which the majority of its members are alienated. Bureaucratic control is a necessary evil and yet too much control creates alienation and disintegration. Bureaucracy is not the most efficient device when environment is changing rapidly or is hostile. In the latter case,

people's voluntary participation and cooperation is required more than hierarchical order and control. Let us hope that we have learned some important lessons from the Korean case of rural development.

REFERENCE MATTER

APPENDIX A

Table 1. Zero-Order Correlation Coefficients among Sixteen Items Measuring Subjective Quality of Life

Measured Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Housing Conditions	1.00	.22**	.11**	.09**	.06	.01	.08*	.05	.02	.18**	.03	.07*	.14**	.04	.24**	.17**
2. Transportation Conditions		1.00	.45**	.29**	.03	-.00	.21**	.08*	.01	.12**	.05	.08*	.14**	.01	.13**	.18**
3. Market Facilities			1.00	.18**	.02	-.02	.22**	.03	.01	.08*	-.00	.06	.08*	.02	.04	.14**
4. Educational Facilities				1.00	.03	.04	.23**	.02	.01	.08*	.07*	.05	.16**	.00	.10*	.22**
5. Closeness among Villagers					1.00	-.00	-.01	-.02	-.06	-.04	.08*	.04	.09*	.30**	.01	.16**
6. Contact with Relatives						1.00	.01	.03	.11**	.00	.11**	.07*	.03	-.04	.09*	-.09*
7. Medical Services & Facilities							1.00	-.03	.03	.15**	.05	.03	.12**	.02	.04	.13**
8. Hardness of Farm Work								1.00	.30**	.25**	.05	.36**	.02	-.07	.29**	.03
9. Leisure & Recreation									1.00	.13**	.05	.22**	.05	-.08*	.09*	-.04
10. Income										1.00	.05	.22**	.16**	.03	.36**	.19**
11. Community Participation											1.00	.09*	-.02	.01	.05	.03
12. Work Satisfaction												1.00	.13**	.00	.30**	.10*
13. The Conditions of the Aged													1.00	.11**	.14**	.18**
14. Public Safety & Order														1.00	.05	.17**
15. Over Life Satisfaction															1.00	.27**
16. Overall Community Satisfaction																1.00

** P < .01 * P < .05

APPENDIX A

Table 2. Varimax Rotated Factor Matrix of Sixteen Items Measuring Subjective Quality of Life

Measured Itmes	Factor			
	1	2	3	4
1. Housing Conditions	.188	.299	.148	.018
2. Transportation Conditions	.809	.083	.047	.001
3. Market Facilities	.707	.023	-.010	-.004
4. Educational Facilities	.409	.111	.220	-.003
5. Closeness Among Villagers	.046	-.023	.556	.080
6. Contact with Relatives	.009	.025	.041	.358
7. Medical Services and Facilities	.402	.139	-.004	-.093
8. Hardness of Farm Work	.025	.436	-.135	.253
9. Leisure and Recreation	.016	.189	-.149	.329
10. Income	.107	.620	.056	.008
11. Community Participation	-.098	.052	.054	.342
12. Work Satisfaction	.046	.435	.114	.244
13. The Conditions of the Aged	.134	.197	.366	.049
14. Public Safety and Order	-.046	.018	.524	-.038
15. Overall Life Satisfaction	.097	.702	.113	.091
16. Overall Community Satisfaction	.204	.343	.408	-.120

APPENDIX B

CODING FORMAT FOR THE CONSTRUCTED VARIABLES

(Household Questionnaire)

Column	Variable Number	Punch	Item and Code	
(Card 1)				
1-2	X2		Name of Project Areas	
		01	Kyunggi-Do	Yi-Dong
		02		Gung-Pyong
		11	Gangwon-Do	Chul-Won(A)
		12		Geo-Jin
		13		Chul-Won(B)
		21	Chungcheong-Buk-Do	Jeong-An
		31	Kyungsang-Buk-Do	Gong-Seong
		32		Mae-Ho(A)
		33		Jeom-Kok
		34		San-Nam
		35		Mae-Ho(B)
		41	Kyungsang-Nam-Do	Cho-Gye
		42		Ma-Jin
		43		Jung-Buk
		44		Saeng-Rim
		51	Cheonra-Nam-Do	Do-Cho
		52		Ji-San
		53		Keum-Sa
3	X3	0	Villages in Project Areas	
		1	Villages in non-project areas	

Column	Variable Number	Punch	Item and Code
4	X4		Name of Village
5	X5		Name of Respondent
6	X6	1	Card Number
7	X7		Sex
		0	Male
		1	Female
8-9	X8		Age of Respondent (Actual Age)
		(Recode)	
		1	20-24
		2	25-29
		3	30-34
		4	35-39
		5	40-44
		6	45-49
		7	50-54
		8	55-59
		9	60-64
		10	65 +
10	X9		Education
		0	No education
		1	Traditional school (Seo-Dang)
		2	Elementary school (1-6 years)
		3	Middle school (7-9 years)
		4	High school (10-12 years)
		5	Technical college (13-14 years)
		6	College or university (13-16 years)

Column	Variable Number	Punch	Item and Code
11	X10		Occupation
		0	Farmer
		1	Officer
		2	Teacher
		3	Clerical
		4	Skilled labourer
		5	Unskilled labourer
		6	Sales
		7	Others
		8	Unemployed
12	X11		Experience of Occupational Mobility
		0	No
		1	Yes
13	X12		Previous Occupation (in case of Yes (1) in XII)
			Same as X10
14	X13		Experience of Residential Mobility
		0	No
		1	Yes
15	X14		Previous Residence Area
		0	No residence change
		1	Seoul (the capital city)
		2	Pusan, Daegu, Kwangju (large cities)
		3	Other small and medium cities
		4	Rural areas
		5	Foreign country (especially Japan)
		9	No information

Column	Variable Number	Punch	Item and Code
16	X15		Duration of Current Residence (actual year of residence)
17-21	X16		Size of Cultivated Land (paddy) (actual size)
		(Recode)	
		1	Below 0.5 ha
		2	0.5-0.9 ha
		3	1.0-1.9 ha
		4	2.0-2.9 ha
		5	Over 3 ha
22-26	X17		Size of Cultivated Land (upland) Same as X16
27-31	X18		Size of Cultivated Land (total) Same as X16
37-41	X20		Size of Land Owned (upland) Same as X16
42-46	X21		Size of Land Owned (total) Same as X16
47-51	X22		Size of Land Owned 5-6 Years Ago (paddy) Same as X16
52-56	X23		Size of Land Owned 5-6 Years Ago (upland) Same as X16
57-61	X24		Size of Land Owned 5-6 Years Ago (total) Same as X16
62	X25		Reason for the Decrease in Size of the Land Owned
		1	Low profitability in farming
		2	Labor shortage
		3	Living expenses
		4	Children's educational expenses
		5	Medical expenses
		6	Family ritual (marriage, funeral, etc.) expenses

Column	Variable Number	Punch	Item and Code
		7	Establishment of branch family of son
		8	Others
		9	No information
63	X26		Possession of Radio
		0	Yes
		1	No
		9	No information
64	X27		When Did You Buy It?
		0	1980
		1	1979
		2	1978
		3	1977
		4	1976
		5	1975
		6	1974
		7	1973
		8	1972
		9	1971 or before
65	X28		Possession of Television Set Same as X26
66	X29		When Did You Buy It? Same as X27
67	X30		Possession of Electric Iron Same as X26
68	X31		When Did You Buy It? Same as X27
69	X32		Possession of Electric Fan Same as X26

Column	Variable Number	Punch	Item and Code
70	X33		When Did You Buy It? Same as X27
71	X34		Possession of Rice Cooker Same as X26
72	X35		When Did You Buy It? Same as X27
73	X36		Possession of Tape Recorder Same as X26
74	X37		When Did You Buy It? Same as X27
75	X38		Possession of Phonograph Same as X26
76	X39		When Did You Buy It? Same as X27
77	X40		Possession of Refriegerator Same as X26
78	X41		When Did you Buy It? Same as X27
79	X42		Possession of Power Sprayer Same as X26
80	X43		When Did You Buy It? Same as X27
(Card 2)			
1-5			Card Identification (Repeat of Card 1)
6		2	Card Number
7	X44		Possession of Power Tiller Same as X26
8	X45		When Did You Buy It? Same as X27
9	X46		Possession of Power Threshier Same as X26
10	X47		When Did You Buy It? Same as X27

Column	Variable Number	Punch	Item and Code
11	X48		Possession of Power Pump Same as X26
12	X49		When Did You Buy It? Same as X27
13	X50		Possession of Transplanter Same as X26
14	X51		When Did You Buy It? Same as X27
15	X52		Possession of Combine or Binder Same as X26
16	X53		When Did You Buy It? Same as X27
17	X54		Marital Status
		1	Married (including remarried)
		2	Unmarried
		3	Divorced or Widowed
		4	Unknown
18	X55		Number of Family (actual number) (9 for more than 9)
19	X56		Number of Family over 65 Years Old (actual Number)
20	X57		Number of Family below 14 Years (actual number)
21	X58		Number of Outmigrant for Schooling (actual number)
22	X59		Number of Outmigrant for Employment (actual number)
23	X60		Number of Economically Active Member (actual number)
24	X61		Number of Students (actual number)
25	X62		Education of Wife or Husband Same as X9
26	)		Occupation of Wife or Husband Same as X10

Column	Variable Number	Punch	Item and Code
27	X64		Education of the Eldest Son (in case of finishing his last year of schooling) Same as X9
28	X65		Occupation of the Eldest Son (in case of finishing his last year of schooling) Same as X10
29-31	X66		Family Annual Income (actual amount in ten thousand won)
		(Recode)	
		1	0- 49
		2	50- 99
		3	100-149
		4	150-199
		5	200-249
		6	250-299
		7	300-349
		8	350-399
		9	400-449
		10	450-449
		11	500 +
32	X67		Self-Evaluation of Socio-Economic Status in the Community (present)
		1	Upper-Upper
		2	Lower-Upper
		3	Upper-Middle
		4	Lower-Middle
		5	Upper-Lower
		6	Lower-Lower
		7	Don't know
		9	No information

Column	Variable Number	Punch	Item and Code
33	X68		Self-Evaluation of Socio-Economic Status in the Community (5-6 years ago) (same as X67)
34	X69		Self-Evaluation of Socio-Economic Status in the Community (5-6 Years after) (same as X68)
35	X70		Positions in Village Organizations
		0	Ri-chief
		1	Ban-chief (Ban: Sub-district of Ri)
		2	Saemaul leader
		3	Members of Community Dev't Committee
		4	Members of Land Board
		5	Chief of Agricultural Organization Chief of Irrigation Organization Chief of Forestrv Organization
		6	Chief of Women's Club
		7	Chief of Youth's Club
		8	Chief of clan societv
		9	Others (Member of Trustee Board of Agricultural Cooperatives, etc.)
36	X71		Positions in Village Organizations (Husband or Wife) Same of X70
37	X72		Number of Membership in Gye (private credit union) (actual number)
38	X73		Number of Membership in Gye (husband or wife)
39	X74		Discussions of Daily Affairs with Husband or Wife
		1	Often
		2	Sometimes
		3	More or Less

Column	Variable Number	Punch	Item and Code
		4	Not much
		5	Seldom
40	X75		Decision-Makers in Daily Affairs
		1	Parents
		2	Husband
		3	Husband and wife together
		4	Wife
		5	Others
41	X76		Discussions of Children's Schooling or Employment Same as X74
42	X77		Decision-Makers in Children's Schooling or Employment Same as X75
43	X78		Discussions of Property Management or Disposal Same as X74
44	X79		Decision-Makers in Property Management or Disposal Same as X75
45	X80		Educational Aspiration for the Eldest Son
		1	Elementary school
		2	Middle school
		3	High school
		4	Technical college
		5	College or university
		6	Graduate school
		7	Don't know
46	X81		Educational Expectation for the Eldest Son Same as X80
47	X82		Occupational Aspiration for the Eldest Son
		1	Officer (including lawyer)

Column	Variable Number	Punch	Item and Code
		2	Teacher
		3	Clerical
		4	Sales
		5	Farmer
		6	Skilled Labourer
		7	Others
48	X83		Frequency of Visits to Market Place
		1	Never
		2	Seldom
		3	More or less
		4	Occasionally
		5	Often
49	X84		Frequency of Visits to Towns Same as X83
50	X85		Frequency of Visits to Cities Same as X83
51	X86		Frequency of Administrative Officers' Visit Same as X83
52	X87		Frequency of Agricultural Cooperative Officers' Visit Same as X83
53	X88		Frequency of Extension Service Workers' Visit Same as X83
54	X89		Frequency of Farm Land Improvement Association (FLIA) Officers' Visit
55	X90		Intimacy with Administrative Officers
		1	Don't know at all
		2	Not intimate
		3	Know him by the name

Column	Variable Number	Punch	Item and Code
		4	Somewhat intimate
		5	Very intimate
56	X91		Intimacy with Agricultural Cooperative Officers Same as X90
57	X92		Intimacy with Extension Service Workers Same as X90
58	X93		Intimacy with FLIA Officers Same as X90
59	X94		Frequency of Visits to Administrative Office Same as X83
60	X95		Frequency of Visits to Agricultural Cooperative Office Same as X83
61	X96		Frequency of Visits to Extension Service Station Same as X83
62	X97		Frequency of Visits to FLIA Office Same as X83
63	X98		Newspaper Subscription
		1	National and local papers
		2	National papers only
		3	Local papers only
		4	No subscription
		9	No information
64	X99		Most Influential in the Community (his social position) Same as X70
65	X100		Do You Desire to Move to Other Places?
		1	Yes
		2	Don't decide now
		3	No

Column	Variable Number	Punch	Item and Code
66	X101		(in case of Yes, (1) in X100) If You Desire to Move, Where Do You Want to Live? Same as X14
67	X102		(in case of Yes (1) in X100) If so, What Kind of Job Do You Want to Have? Same as X10
68-70	X103		Amount of Debt (actual amount in ten thousand won)

Punch		Punch	
1	None	2	1- 9
3	10- 19	4	10- 29
5	30- 39	6	40- 49
7	50- 59	8	60- 69
9	70- 79	10	80- 89
11	90- 99	12	100-109
13	110-119	14	120-129
15	130-139	16	140-149
17	150-159	18	160-169
19	170-179	20	180-189
21	190-199	22	200 +

71-73	X104		Amount of Debt (the largest item in sum) Same as X103
74	X105		Reason for Debt (the largest item in sum)
		1	Living expenses
		2	Farming cost
		3	Children's educational expenses
		4	Medical expenses
		5	Purchase of agricultural machinery

Column	Variable Number	Punch	Item and Code
		6	Purchase of farmland
		7	Familial ritual expenses
		8	Land consolidation
		9	Others
75	X106		Creditor (the largest item in sum)
		1	Agricultural cooperatives
		2	Commercial banks
		3	Other people
		4	Village credit union
76-78	X107		Amount of Debt (the second largest item) Same as X103
79	X108		Reason for Debt (the second largest item) Same as X105
80	X109		Creditor (the second largest item in sum) Same as X106
(Card 3)			
1-5			Card Identification
6		3	Card Number
7-9	X110		Amount of Debt (the third largest item) Same as X103
10	X111		Reason for Debt (the third largest item) Same as X105
11	X112		Creditor (the third largest item) Same as X105
12	X113		Are You a Member of Farm Land Improvement Association (Heung Nong Gye)?

Column	Variable Number	Punch	Item and Code
		1	Yes
		2	No
		3	Not organized yet
13	X114		Who Manages the Irrigation Facilities?
		0	Sugam(water manager)
		1	Farm Land Improvement Association
		2	Chief of Heung Nong Gye
		3	Village influentials
		4	Members of Heung Nong Gye
		5	Villagers
		6	Others
14	X115		(If the respondents isn't a member of Farm Land Improvement Association) Are You a Member of Traditional Irrigation Association?
		0	No
		1	Yes
15	X116		(In Case of Yes, (1) in X115) If so, what is Your Position in the Association?
		0	Member only
		1	Leader or staff
16	X117		(If the respondents is a member of FLIA, that is, he/she replies Yes in X113, ask him/her from X117 to X121.) What Kind of Irrigation Facilities Did You Use before the Project?
		1	Bo(small weir)
		2	Reservoir
		3	Pumping system
		4	No Irrigation Facilities
		5	Others

Column	Variable Number	Punch	Item and Code
17	X118		Were You a Member of the Traditional Irrigation Association before the Project?
		0	No
		1	Yes
18	X119		What Was Your Position in the Association?
		0	Member only
		1	Leader or staff
19	X120		Before the Project Began Did You Sign on the Project Contract?
		0	Didn't sign
		1	Forced to sign
		2	Pursuaded to sign
		3	Sign voluntarily
20	X121		In What Degree Do You Think the Residents' Opinion Was Reflected in the Project?
		1	Seldom reflected
		2	Partly reflected
		3	Fully reflected
21	X122		Did You Participate in the Construction Work of the Irrigation Facilities?
		0	No
		1	Yes
22-26	X123		Area of Planting New Rice Varieties Same as X16
27-28	X124		When Did You Start Planning the New Rice Varieties?
29	X125		(Ask X125-X127 only in project areas) To What Extent Do You Think the Project Contributed to the Community Development?

Column	Variable Number	Punch	Item and Code
		1	Very much
		2	Much
		3	Somewhat
		4	Little
		5	Seldom
30	X126		To What Extent Do You Think the Project Contributed to the Increase of Your Income? Same as X61
31	X127		How High Do You Think the Water Fee Is?
		1	Low
		2	Moderate
		3	Somewhat high
		4	Very high
32-36	X128		Size of Irrigated Paddy Land Cultivated Same as X16
37-41	X129		Size of Irrigated Paddy Land Owned Same as X16
42-46	X130		Size of Irrigated Paddy Land Owned 5-6 Years Ago Same as X16
47	X131		Rating of Paddy Land Quality (5-6 years ago)
		1	High
		2	Medium
		3	Low
48	X132		Rating of Paddy Land Quality (present) Same as X.131
49	X133		Do You Think That the Current Irrigation Facilities Are Adequate for Your Farming?
		1	Very sufficient
		2	Somewhat sufficient
		3	Insufficient

Column	Variable Number	Punch	Item and Code
50	X134		Who Do You Think Should Manage the Irrigation System? Same as X114
51	X135		Was There Any Dispute over the Distribution of Water among Villagers during the Past 5-6 Years?
		1	Yes
		2	No
52-54	X136-138		Who Is the Closest Friend of Yours? (Social status in the community) Same as X70
55	X139		(Quality of life indicators) Quality of the Housing Conditions
		1	Very inconvenient
		2	Somewhat inconvenient
		3	Fair
		4	Somewhat convenient
		5	Very convenient
56	X140		Change in Housing Conditions during the Past 5-6 Years
		1	Gotten worse
		2	Somewhat gotten worse
		3	About the same
		4	Somewhat improved
		5	Improved
57	X141		Transportation Conditions Same as X139
58	X142		Change in Transportation Conditions during the Past 5-6 Years Same as X140
59	X143		Market Facilities Same as X139

Column	Variable Number	Punch	Item and Code
60	X144		Change in Market Facilities during the Past 5-6 Years Same as X140
61	X145		Educational Facilities Same as X139
62	X146		Change in Educational Facilities during the Past 5-6 Years Same as X140
63	X147		How Close Are the Village People to Each Other?
		1	Very distant
		2	Somewhat
		3	Fair
		4	Somewhat close
		5	Very close
64	X148		Change in Closeness among the People in the Community during the Past 5-6 Years Same as X140
65	X149		Frequency of Contact with Relatives in Other Regions
		1	Seldom visit to each other
		2	Little visit to each other
		3	Occasional visit to each other
		4	Often visit to each other
		5	Frequent visit to each other
66	X150		Change in Frequency of Contact with Relatives in Other Regions during the Past 5-6 Years
		1	Decreased
		2	Somewhat decreased
		3	About the same
		4	Somewhat increased
		5	Increased

Column	Variable Number	Punch	Item and Code
67	X151		Medical Service and Facilities Same as X139
68	X152		Change in Medical Service and Facilities during the Past 5-6 Years Same as X140
69	X153		Hardness of Farm Work
		1	Very hard
		2	Somewhat hard
		3	Fair
		4	Somewhat easy
		5	Very easy
70	X154		Change in Hardness of Farm Work during the Past 5-6 Years
		1	Much harder than before
		2	Somewhat harder than before
		3	About the same
		4	Somewhat easier than before
		5	Much easier than before
71	X155		Leisure and Recreation
		1	Seldom
		2	Little
		3	Fair
		4	Somewhat
		5	Very much
72	X156		Change in Leisure and Recreation during the past 5-6 Years Same as X140
73	X157		Income
		1	Dissatisfied

Column	Variable Number	Punch	Item and Code
		2	Somewhat dissatisfied
		3	Fair
		4	Somewhat satisfied
		5	Satisfied
74	X158		Change in Income during the Past 5-6 Years Same as X140
75	X159		Community Participation
		1	Seldom involved
		2	Little involved
		3	Fair
		4	Somewhat involved
		5	Very much involved
76	X160		Change in Community Participation during the Past 5-6 Years Same as X140
77	X161		Work Satisfaction Same as X157
78	X162		Change in Work Satisfaction during the Past 5-6 Years Same as X140
79	X163		Conditions for the Aged
		1	Very poor
		2	Poor
		3	Fair
		4	Good
		5	Excellent
80	X164		Change in Conditions for the Aged during the Past 5-6 Years Same as X140

Column	Variable Number	Punch	Item and Code
(Card 4)			
1-5			Card Identification (repeat of Card 1)
6		4	Card Number
7	X165		Public Safety and Order Same as X163
8	X166		Change in Public Safety and Order during the Past 5-6 Years Same as X140
9	X167		Overall Life Satisfaction Same as X139
10	X168		Change in Overall Life Satisfaction during the Past 5-6 Years Same as X140
11	X169		Expectation in Overall Life Satisfaction after 5-6 Years
		1	Will be much worse off
		2	Will be worse off
		3	Will be about the same
		4	Will be better off
		5	Will be much better off
12	X170		Overall Community Satisfaction Same as X140
13	X171		Change in Overall Community Satisfaction during the Past 5-6 Years Same as X139
14	X172		Expectations in Community Satisfaction after 5-6 Years Same as X169
15	X173		(Community integration and identification) The People in This Community Are like One Big Family.
		1	Disagree

Column	Variable Number	Punch	Item and Code
		2	Don't know
		3	Agree
16	X174		Few People in This Community Care about What Happens to the Other Members of the Community
		1	Agree
		2	Don't know
		3	Disagree
17	X175		I Take Pride in the Success of a Neighbour or His/Her Sons/Daughters
		1	Disagree
		2	Don't know
		3	Agree
18	X176		When Someone Leaves His Neighborhood Nearly Everyone Feels a Loss
		1	Disagree
		2	Don't know
		3	Agree
19	X177		Basically the Services in This Community Are Very Poor
		1	Agree
		2	Don't know
		3	Disagree
20	X178		I Am Important as a Person in This Community
		1	Disagree
		2	Don't know
		3	Disagree
21	X179		I Don't Believe This Community Will Prosper
		1	Agree

Column	Variable Number	Punch	Item and Code
		2	Don't know
		3	Disagree
22	X180		Most People in This Community Work to Be a Rich Man Rather Than to Make the Community a Better Place to Live in as a Whole
		1	Agree
		2	Don't know
		3	Disagree
23	X181		I Am Often Willing to Discuss My Family Problem with Neighbors
		1	Disagree
		2	Don't know
		3	Agree
24	X182		I Would Prefer to Live in Another Community
		1	Agree
		2	Don't know
		3	Disagree
25	X183		(Anomie, alienation and authoritarianism) Success in Business and Politics Cannot Easily Be Achieved without Taking Advantage of Gullible People
		1	Disagree
		2	Don't know
		3	Agree
26	X184		These Days a Person Doesn't Really Know Whom He Can Count on Same as X183
27	X185		Nowadays a Person Has to Live Pretty Much for Today and Let Tomorrow Take Care of Itself Same as X183

Column	Variable Number	Punch	Item and Code
28	X186		Things Are Changing so Fast These Days That One Doesn't Know What to Expect from Day to Day Same as X183
29	X187		Public Officials Doesn't Really Care about What People like Me Think Same as X183
30	X188		In Spite of What Some People Say the Lot of the Average Man is Getting Worse not Better Same as X183
31	X189		The World Is Run by the Few People in Power, and There Is not Much the Little Guy Can Do about it Same as X183
32	X190		Human Nature Being What It Is, There Must Always Be War and Conflict Same as X183
33	X191		What Young People Need Most of All Is Strict Discipline by Their Parents Same as X183
34	X192		Woman Should Stay Out of Politics Same as 183
35	X193		Most People Who Don't Get Ahead Just Don't Have Enough Will Power Same as X183
36	X194		An Insult to My Honor Should not Be Forgotten Same as X183
37	X195		Men Can Be Trusted More than Women Same as X183
38	X196		There Are Many Difficulties I Cannot Overcome for Myself Same as X183
39	X197		Sometimes Politics and Government Seem so Complicated that a Person like Me Can't Really Understand Same as X183
40	X198		In Order to Get Ahead in the World Today, You Are Almost Forced to Do Some Things Which Aren't Right Same as X183

Column	Variable Number	Punch	Item and Code
41	X199		It Is Hard to Figure but Who You Can Really Trust These Days Same as X183
42	X200		Sometimes We Are Forced to Do Something Which Is Really Reluctant to Us Same as X183
43	X201		I'm not Much Interested in the TV Programs, Newspapers Same as X183
44	X202		Satisfaction in Government's Agricultural Policies
		1	Satisfied
		2	Dissatisfied, but helpless
		3	Dissatisfied

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