THE MONITORING AND EVALUATION UNIT IN THE
MAURITIUS RURAL DEVELOPMENT PROJECT

- CASE STUDY -

A. THE PROJECT OBJECTIVES 1
B. ORGANIZATION OF THE EVALUATION UNIT 2
C. REPORTING AND MONITORING 3
D. ONGOING EVALUATION 4
   a) Work Program (Chart 1) 4
   b) Research Procedures 4
   c) Detailed Description of Studies 5
E. EX POST EVALUATION: DATA FOR "BEFORE/AFTER" STUDIES 8
F. THE MID-TERM PROJECT EVALUATION TASK FORCE 9
G. FEEDBACK TO MANAGEMENT 9
   a) Incomplete use of Findings 9
   b) How Much Criticism is Permissible? 10
H. LESSONS FROM EVALUATION EXPERIENCE 11
   a) Overuse of Questionnaires 11
   b) Interpreting Collected Information 12
   c) Sample Design 12
   d) Integration of Sociological and Economic Evaluation 13
   e) Use of Case Studies 13
   f) Impact on Incomes and Measurement of Ultimate Effectiveness 13
I. THE UNIT'S FUTURE WORK PROGRAM (Chart 2) 14

FILE COPY

Michael Cernea
January 1977
THE MONITORING AND EVALUATION UNIT IN THE
MAURITIAN RURAL DEVELOPMENT PROJECT

A CASE STUDY

The Mauritian Rural Development Project is one of the very few "new style" project to include, as early as 1973, a pioneering approach to the establishment of a distinct Monitoring and Evaluation Section within the framework of Project Management. As the project had a number of experimental features, it was considered necessary to provide assistance to Project Management for organizing a sociological and economic evaluation of the changes generated by the project.

The experience accumulated so far by this project's Monitoring and Evaluation Unit is of particular interest because of (a) it has completed a relatively large number of studies and (b) it has a significant contribution towards both improving the current project and designing a second phase, which is a nation-wide replication of the initial Rural Development Program.

A. THE PROJECT OBJECTIVES

The Mauritian Rural Development Project is aimed at benefiting the poorest segment of the rural population. In its first phase (1973-1978) it covers 29 Village Council Areas (VCAs) out of a total of 87 VCAs in the country. The type of Project the Government had to resort to has a particular feature which has put its imprint on the structure and methods of evaluation work: The Rural Development Project incorporates a large public works program, designed to alleviate the ravaging unemployment among rural landless dwellers and to improve the social and economic conditions in the villages.

Specifically, the Rural Development Project is aimed at:

a) creating employment for a significant number of unemployed landless village dwellers (about 7000 temporary jobs and 1000 permanent jobs), through a public works program for afforestation and village infrastructure;

b) improving the productive capabilities of a segment of the target group by promoting self help schemes, providing training facilities in masonry, carpentry, etc. and planting/distributing fodder plots for livestock owners;
c) improving socio-cultural and economic conditions in the poorest villages by providing basic amenities such as water taps, health clinics, access and village roads, markets and village halls;

d) building institution for rural development, in particular by strengthening Government planning and evaluation capabilities and by establishing at the grass roots level a network of Village Development Officers.

3 ORGANIZATION OF THE EVALUATION UNIT

Creation: At the start of the project, the IDA appraisal mission had to put a strong emphasis on the need for an Evaluation Unit, as is always necessary in contexts where evaluation is not yet known or recognized. It is not superfluous to point out that the project of an Evaluation Unit was initially met with reservations and hesitations by the local authorities, and these were caused either by political concerns or by insufficient understanding. Subsequent IDA missions provided continuous support to the Government and the Project Management in designing the terms of reference, the staffing pattern and the study plan for evaluation work.

Staffing: It was agreed that the Unit should have the following staffing: an economist, a sociologist, a part-time agriculturist, a part-time employment or labor economist, four research assistants (sociologists and economists), temporary survey interview staff and clerical assistance. The cost was estimated at about $60,000 per annum equivalent, which was about 1.2% of the initial total project cost.

The first head of the Unit, a Canadian economist under a technical assistance contract, was not successful in making the Unit take off. Procrastination in beginning actual field studies and in recruiting staff subverted or prevented meaningful accomplishments. It took until July 1975 to actually start the operational work of the Monitoring and Evaluation Unit. At that time, an Indian sociologist under contract with the Government of Mauritius, Dr. S. V. Mehta, took over as Head of the Monitoring and Evaluation Unit. Positions of local staff were filled. Currently, the Unit has a work schedule revised and adjusted every year (see Chart 1 and 2). The staff has been expanded, incorporating a systems analyst and a statistician seconded by the Central Statistical Office.

Though it means spelling out the obvious, it is, however, worth mentioning the first, simple but basic lesson: being an innovation, the setting up of an organizational system for evaluation work requires considerable perseverance and expertise from IDA missions in the early stages of project appraisal and supervision. In many LDCs, the organization of monitoring and evaluation systems still remains probably the least known part of the overall rural development strategy.
C. REPORTING AND MONITORING

Monitoring of current project implementation could not wait for the establishment of the full Monitoring and Evaluation Unit. Therefore, a monitoring mechanism was built into the functional reporting relationships between the executing agency of project works (Development Works Corporation - DWC) and the Project Management (called the Rural Development Unit - RDU).

Information on project inputs, activities and outputs was generated at the primary level by the executing agency (DWC) in the form of individual site-work reports, produced fortnightly and aggregated quarterly. This information was fed back into both DWC and RDU. RDU did not accept the site-work reports on faith. To check the accuracy of these reports, RDU asked its own network of field agents - the VDOs, posted in each VCA - to supervise the DWC work-sites and provide independent brief progress reports. Those were corroborated in RDU with the DWC reports and identified discrepancies occasioned special check-ups.

In addition, the VDOs reported regularly on those project activities performed by themselves, which were outside DWC competence (community development work, drawing of village poverty profiles, identification of the young unemployed, application for self help schemes, etc.). An economist assigned to the Monitoring and Evaluation Unit was in charge of the desk aggregation of all internal reports for Project Management's external quarterly reports to Government and IDA.

In retrospect, it can be said that until mid/end 1975 the monitoring effort had involved little more than project reporting. It was mainly limited to the routine recording of actual inputs and activities. No distinct efforts to generate additional information on implementation bottlenecks were undertaken. The project advanced rather slowly, lagging (for objective or subjective reasons) behind the schedule and established targets. No accurate monitoring of the implementation of the hiring policy was achieved. (This policy required certain age quotas to be respected, in order to achieve the project's purpose of creating employment for a certain target group). Monitoring did not help in diagnosing implementation problems and in comparatively analyzing actual versus estimated needs, resource consumption, outputs. The flaws of the reporting/monitoring system and process at these stages in the project's life not only reflected the managerial and implementational weaknesses, but also reinforced them.

Even after the Monitoring and Evaluation Unit started to operate full scale, monitoring has remained relatively weak. The concern was more with evaluation than with monitoring. The Unit did not become deeply involved in a day-to-day, sharp and focused monitoring effort. Project Management continued its reliance on the routine reporting system, (described above as generated mainly within DWC) and did not require the Unit to undertake more analytical monitoring studies on critical issues. For instance, cost overruns on DWC worksites became obvious, more materials were consumed for project buildings than initially planned, low productivity plagued DWC construction work. But
these phenomena were rather passively recorded in two reports on "trends" (see Chart 1, first two studies) than questioned by inquisitive monitoring. Project Management did not instruct the Unit to analyze aggressively the operational causes of the cost overruns and to submit recommendations and alternatives. The Unit itself did not have sufficient initiative. It was rather self-satisfied with passive and uncritical recording of "trends". Often, the information was comfortably picked up only from DWC files, rather than from direct worksite analysis. A quicker grasp of lingering causes of critical issues and implementation constraints would have considerably speeded up project progress. The basic function of an incisive monitoring system --that of early warning of management and recommending of corrective actions to be taken by project management-- was not properly discharged.

D. ONGOING EVALUATION

a) Work Program (Chart 1)

Design and implementation of evaluation work proper started to proceed with all dispatch in the second half of 1975, after the arrival of the sociologist and when staffing was becoming more adequate. The head of the Unit was sent for a ten day experience-exchange program to IDA headquarters in Washington.

The Monitoring and Evaluation Unit articulated its own work program containing several sociological and socio-economic studies (see Chart 1). The bulk of these studies consisted of evaluation of ongoing implementation of project components. The more specific objectives of most of these studies was to observe how various groups of project beneficiaries absorb various project delivered assets. By their goals and nature, these studies were meant to make an early and partial assessment of project effects and impact on the target group, performing simultaneously a partial monitoring function. The work program also included two "basic studies", which meant in fact the first stage in collecting baseline data for ex-post (before-and-after) evaluation of project impact (see para. E).

In retrospect, it appears that the work program did not cover comprehensively all the major project aspects (for instance, no study on impact on incomes was incorporated in the first work schedule). Some of the studies scheduled for completion during 1976 were not carried out: the study on the training impact of the project and the study on the social-economic impact of village roads. The time resources of the Unit's staff were not used at their maximum, through a tighter internal organization. Project Management also diverted one or two of the Unit's staff members to occasional chores outside the Unit.

b) Research Procedures

An interesting procedure was applied in delineating the topics for the ongoing evaluation studies. It can be called "disaggregated ongoing evaluation" and it consists of disaggregating the subcomponents of the project package and evaluating separately the component related
# MAURITIUS
## RURAL DEVELOPMENT PROJECT
### SCHEDULE FOR MONITORING AND EVALUATION WORK – MAY 1976

<table>
<thead>
<tr>
<th>CATEGORY OF STUDIES</th>
<th>1976</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nov</td>
<td>Dec</td>
</tr>
<tr>
<td>MONITORING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Trend in use of cost of materials (base 1972)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Comparative labor cost change (base year 1972)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Monitoring physical progress and overall project progress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPERATIONAL EVALUATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. L'Écaille Village Market</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Home vegetable gardens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Home rabbit keeping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Village development officers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Village hall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Village cow distribution (Non Project)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG-TERM EVALUATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Employment analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Labour force &amp; employment situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Training impact of project formal &amp; informal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Social &amp; economic impact of village roads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Village organisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Youth clubs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Role of women in rural development programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Non productive self help</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASIC STUDIES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* A. National Level Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Before &amp; after</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* B. Comparative Village Study (Before &amp; after)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The "after" studies will be carried out after an interval of two years

1/ Draft Study complete
2/ Data collection complete
3/ Data collection initiated

World Bank - 15461/290
inputs, outputs and effects. This allows for a more problem specific monitoring and ongoing evaluation as against the usual wholesale approach in assessing a project's impact.

Thus, a variety of problem-specific surveys were mounted. They employed two basic research techniques: case studies and sample surveys (unfortunately, these techniques were not combined in the same studies, but used alternatively). Coding and computing was done manually in the Unit.

To augment the staff resources for carrying out the field studies, the Unit requested a few Village Development Officers to help with interviewing work. This also introduced some bias, as the VDOs were used in the villages for which they were responsible, instead of using them in other villages toward which they could have been neutral.

Interpretation and analysis of the collected data was done in the Unit, mostly by the Unit's head. Each report has included a set of recommendations.

The problem-specific disaggregated evaluation study is a very flexible procedure. Additional studies can easily be built into the program as need arises. They require rather limited staff resources. Processing of information is quite rapid and results should be available within a matter of weeks.

c) Detailed Description of Studies

During the first ten months of 1976, about six ongoing evaluation studies were produced. They represent the core of the Unit's contribution to increasing knowledge on project generated socio-economic developments and to improving project implementation. Each is briefly described below:

1) Analysis of the role and performance of Village Development Officers

This was basically a sociological study on the network of VDOs as a new institution in the Mauritius village setting. The sociological evaluation was concerned with assessing how the VDOs made themselves acceptable to the people and their effectiveness in the roles of planner, coordinator, communicator and trainer within the framework of the Rural Development Program. Research techniques employed were a questionnaire for all VDOs, interviews with Senior VDOs and informal meetings with village council members, village leaders and influential persons. The main indicators used in the research were: socio-cultural characteristics of VDOs; perceived duties and functions; time spent on different functions; methods employed to motivate and educate the target group for development activities; cooperation with other village institutions. The study assessed the difficulties in the VDOs work and came up with recommendations to Management regarding: strengthening of supportive supervision; setting up of an intermediate level between the Senior VDOs and VDOs; upgrading the VDO's role in the local communities.
The study also proposed a better structural institutionalization of the VDO's coordinating functions at the village level. The study's findings supported the proposal to transform the VDO into a permanent change agent which would remain to operate in the community even after the project is completed.

2) Study of the Utilization Pattern of the Project Built Market in L'Escalier Village

This case study had both monitoring and ongoing evaluation objectives. It was undertaken on the first market constructed out of the 22 provided under the project. It was aimed at assessing the market's functionality as to its architectural design and to the procedure for allocating market stalls to prospective sellers. The market's functionality was to be assessed in terms of channeling products to the local population at lower prices and under more hygienic conditions, as well as providing a convenient opportunity for selling the surpluses of local small producers. One questionnaire was addressed to a group of buyers, another to the sellers; also, the Village Council leaders responsible for market management were interviewed. The survey was carried out by the local VDO, under the guidance of the Monitoring and Evaluation Unit, while the findings were analyzed and interpreted by the Unit's senior sociologist.

The study found that the construction of the market ignored in some important respects the socio-cultural needs and religious beliefs of the local community (mostly Hindu). For instance, meat and fish stalls were not well separated, conflicting with Hindu norms about food. The physical layout of the market stalls proved to be very impractical and drew lots of criticisms in particular from the village women. The study's recommendations led to major changes in the architectural design of the markets subsequently constructed under the project; for instance, religious prescriptions were taken into account in the layout of the stalls, better access and flow of buyers was ensured, stalls were built differently and walled in, overnight storage space and better hygienic protection for products were provided etc.


4) Study on the Effects of Self Help Rabbit Rearing

These two sociological and economic studies were generally similar in their approaches. Under the project, some materials (wire mesh for fencing, planks for rabbit hutches, seeds, etc.) are provided free to a number of poor families willing to contribute with labor and the rest of the materials needed for setting up backyard small vegetable gardens or hutches for rabbit rearing. Both schemes are meant to increase the incomes and improve the nutrition level of the poverty group. The VDOs motivated and selected the families most interested in such self help schemes. The objectives of the studies were: (a) to identify the socio-cultural characteristics of adopters of self help schemes; (b) to analyze the motivating
factors and the level of satisfaction of adopters; (c) to delineate the benefits accrued to the recipient families through productive self-help; (d) to identify the difficulties encountered by adopters and suggest possible solutions. The techniques used to carry out these studies was a survey by questionnaire. Two samples were randomly selected, each of about 20% of the total number of families which received materials up to the moment when the study was carried out (May 1976). The samples amounted to 193 families for vegetable gardening and 110 families for rabbit rearing. The socio-economic indicators used were: the characteristics of adopters of self help schemes, (age, occupational distribution, educational and religious background, monthly income, etc.) technical advice received, time spent, benefits derived, consumption or marketing of produced vegetables and rabbits.

The report made a set of recommendations to Project Management for improving assistance to the adopters of self help schemes, alleviating various existing constraints, and motivating other families to take up similar activities. Better understanding of the sociological mechanisms of self help projects was acquired, though the studies did not sufficiently capture, as they should have done, the spread of self help behavior favorable to development.

5) Evaluation of Effects of the Cow Distribution Program

The cow distribution program, sponsored by New Zealand, is not a component of the IDA assisted Rural Development Project, but it has been carried out with the help of the Rural Development Unit. The evaluation study provided valuable insight into a program with strong impact and conveyed to the Government the opinions of the program beneficiaries. It also led to a better understanding of the problems related to the fodder component of the project.

6) Community Utilization Patterns of the Village Hall in Gop Malheureux Village

A case study was carried out on the first (out of 28) village halls to be constructed under the project. A questionnaire survey among a group of villagers tested their level of information, opinions, preferences and expectations regarding the socio-cultural services provided through the new Village Center. Unfortunately, the study was methodologically extremely weak and did not produce reliable findings. The fact that the field interviews were carried out by the VDO who is responsible for this village and for its Village Hall, obviously biased the answers of the interviewee.
E. EX-POST EVALUATION: DATA COLLECTION FOR "BEFORE/AFTER" STUDIES

In addition to the studies described above, the gathering of baseline information to be used for ex-post evaluation was launched. The ultimate goal is to assess the project's impact on incomes of individual families and the overall social change caused by the project at the village community level.

Methodologically, two points should be stressed:

a) the approach to before/after evaluation studies is different but complementary to the approach used in ongoing evaluation; the final evaluation will assess the aggregated impact of the whole developmental package, while ongoing evaluation has disaggregated the project's components and has been assessing their effects separately;

b) two basic units of investigation are being utilized for overall impact assessment: (1) the household and (2) the village community. To assess the project's impact on the life of villagers, it is necessary to focus enquiries on both the family household and the village as a whole.

First, the Monitoring and Evaluation Unit started a "national level study" on a statistically selected sample of about 800 families and households. The baseline survey, using economic, behavioral and attitudinal indicators, was carried out early in 1976. Results are being processed and interpreted. The same sample will be surveyed for the second time after project completion.

Second, "comparative village studies" were launched on 6 villages: three of them are located within the project area, while the other three (comparable in size, position, structure, potential) are outside it and were selected as control villages. Baseline data are collected and stored. The study will be repeated after a number (not yet determined) of years to assess differentially the social changes "before and after" and "with and without" the project.

Another source of information for this study is the "Village Poverty Profile". The initial selection of 29 Village Council Areas out of the total 87 VCAs for inclusion in the project was done on the basis of a "poverty index", essentially a weighted average of numerical and arbitrarily scaled qualitative indicators of poverty. The index was constructed on the basis of information extracted from the Housing and Population Census and by surveys conducted by Village Development Officers. This information (which pertains to mid-1972) is available for every village in the island, and provides an obvious base-line from which changes in village characteristics can be measured. Hence the evaluation task has been (a) to select a sample of villages included in the project and a sample of poor villages not included and (b) to survey again both samples at the conclusion of the project, so as to measure changes in the village characteristics. Some of the characteristics measured - for instance, availability of amenities - will be altered directly as a result of the project. Others, such as employment, production activities, socio-cultural factors, will be affected both directly and indirectly by the project.
F. THE MID-TERM EVALUATION TASK FORCE

An innovation in the evaluation work carried out within the Rural Development Project in Mauritius is the preparation of an overall mid-term evaluation report on the whole project. Instead of doing such a report only after project completion, the decision was made to create, in Spring 1977, a Joint Task Force, consisting of a group of senior officers from Project Management and the Monitoring and Evaluation Unit, together with a team of IDA experts. All the findings produced so far by the Unit will be reviewed. Additional studies will be carried out and will be synthesized in an integrated evaluation report.

The specific objectives of the overall mid-term evaluation refer to both immediate operational improvements and to long-term replication of the rural development program on the whole of rural Mauritius until 1980. The mid-term evaluation will:

a) assess the project's general performance and achievements during the first three years;

b) evaluate the economic and social impact at mid-term, in particular the potential of public works and self-help components in rural development schemes;

c) recommend actions for improving project implementation until completion;

d) evaluate the effectiveness of institutional arrangements (RDU and DWC) for the project execution and the project's consequences on institution building in Mauritius;

e) derive specific lessons for replication of the Rural Development Program on a whole-country scale, in particular, how to improve the technical package and social engineering part of this project.

G. FEED-BACK TO MANAGEMENT

The Unit fed its findings back to the Project's management constantly and promptly. Summaries and recommendations were also sent to the Government as input into further decision making. The processing of the data collected was well organized and the intervals between field research and submission of draft reports on findings were rather short.

a) Incomplete use of Evaluation Findings

However, the Project Management did not discuss systematically the monitoring and evaluation reports as they came in. That slowed the management absorption of findings and its reflective work in leading the rural development program. True, some of the specific
recommendations produced by ongoing evaluation were eventually accepted by the Project Management and action was taken to implement them. But, by and large, the Management could have used more intensively the Unit as a supervision and managerial tool.

The issue is: how does the Project Management conceive its own role in ongoing project evaluation? How is the Management's attention distributed between daily operational concerns with implementation tasks and the farsighted thinking about the project's strategic effectiveness in reaching its ultimate objectives? Does the Project Management take the necessary time to ponder and think over the evaluation information, and to initiate immediate corrective action during the implementation process?

It is not enough to have a separate Monitoring and Evaluation Unit producing numerous reports. Evaluation is a function of the managerial process. The impact of the monitoring and evaluation findings, even when they are of good quality, still depends on the Project Management's attitude toward them.

In order to derive maximum benefits from evaluation feedback the Project Management should:

1) Analyze all the information and recommendations produced by the Monitoring and Evaluation Unit and make appropriate decisions;

2) Encourage the Unit toward a more critical and straightforward assessment of weaknesses or unanticipated phenomena in project development and impact;

3) Promptly gear the Unit toward studying implementation bottlenecks as they appear;

4) Instruct the Unit to carry out regular training seminars for its members aimed at improving the quality and methods of evaluation research;

5) Require the Unit to present its findings in a series of seminars with the Village Development Officers.

b) How Much Criticism is Permissible?

Being part of the Project Management, the Monitoring and Evaluation Unit is, on the one hand, well placed organizationally to feed back its findings to Management without delay. On the other hand, the lack of organizational autonomy may put some limits to the scope of its criticism in evaluation work.

To an outside observer it appeared that the Unit was more at ease pointing out the implementation shortcomings that were due to exogenous factors than those linked to weaknesses in the Project
Management. Definitely, the Unit has not been critical enough in its reports, particularly about the low speed of project implementation. Obviously, no formal limit to criticism exists. But the issue is: how strongly is criticism encouraged by the institution? As part of the project executive system, the Monitoring and Evaluation Unit might find it more difficult to raise difficult issues than if it were administratively independent.

The very creation of an Evaluation Unit is an institutionalization of the principle of criticism. It would be, therefore, desirable to build some organizational safeguards for objectivity into the formal status granted to the Evaluation Unit and to its members. Also, in light of the country-wide extension of the project in the second phase, it would be worthwhile to consider whether the Monitoring and Evaluation Unit shouldn't develop into an autonomous Unit within the Ministry responsible for the Program. It would continue to feed back its findings to Project Management, but it could become independent from the executing agency and report directly to the Ministry.

H. LESSONS FROM EVALUATION EXPERIENCE

In November 1976, the presence of an IDA mission in Mauritius occasioned an overall analysis of the activities of the Monitoring and Evaluation Unit. Along with the Unit's positive accomplishments, as described in the previous pages, the analysis pointed out several methodological weaknesses and lessons of evaluation research.

a) Overuse of Questionnaires

The basic data collection technique used in the Unit's research was the survey by questionnaire. This technique has the advantage of rapidly providing a fairly large amount of standardized information; therefore, in certain circumstances its use is fully justified. However, the Monitoring and Evaluation Unit committed the error of overusing this technique and building some of the evaluation reports exclusively or almost exclusively on it. Thus, the collected information was incomplete and biased. Most questionnaires intended to collect only opinions and therefore produced few hard data. As is well known, respondents to questionnaires often tend to give the answers they believe they are expected to give, instead of spelling out their true feelings. Unfortunately, methodological safeguards against that tendency were not built into the research design, as is generally recommended in sociological research.

The Unit should significantly diversify its evaluation techniques and diminish its reliance on questionnaires. Any evaluation exercise should be based on a combination of several research techniques,
capable of generating both hard and soft information. Participant observation carried out by the Unit’s sociologists should be considerably expanded and its results quantified. Economic analysis should always be present. Longitudinal research should be brought in. Hard evidence must be sought out more tenaciously, by all scientific procedures. Evaluation judgments should be the ultimate result of cross checking the information and knowledge produced by an integrated set of research methods, not by a single survey questionnaire.

b) Interpreting Collected Information

Even the primary information collected through questionnaires was sometimes processed in a superficial manner. For instance, cross tabulation was never used. There is no point in giving the age or sex or education distribution of a group of interviewees and then list separately the frequency of their preferences for Village Hall services, if connection between these indicators is not revealed. Only if attendance, preferences, interests, proposals etc. are correlated with target group variables is it possible to find out which services serve whom and derive meaningful conclusions and recommendations.

c) Sample Design

Though careful effort was made in selecting representative samples of beneficiaries among which studies were carried out (as was done in the reports described in Paras. Dc 3, 4, and 5) one variable was neglected: the time variable for measuring project impact. That blurred the results. The samples of 193 participants in the vegetable gardens scheme and 110 participants in the rabbit rearing scheme, drawn from much larger total collectivities, included people who joined these schemes at moments which were more than 12 months apart. Some beneficiaries joined 16-18 months before the study, others only 6-10 months and still others only 2-3 months before. Thus, the samples were not homogeneous in respect to one of the major project related characteristics. Obviously, the possible impact of the self help schemes on each participant could not have been equal. For a significant segment of the sample there was no time for any impact whatsoever. The time variable, in this case, is a proxy for project input. Unequal or little time means unequal or little input. By definition, little or no input cannot produce results. It would have been methodologically correct to limit the sample only to the first cohort of beneficiaries, who had joined the schemes more than 12-14 months before the study took place and who had the needed time span to experience the difficulties and benefits. By treating the samples indiscriminately and by processing averages for the sample as a homogenous entity, the image of the real impact was distorted and the findings of the evaluation are only partially reliable.
d) Integration of Sociological and Economic Evaluation

The Monitoring and Evaluation Unit has a multidisciplinary staff, comprising sociologists, economists, a systems analyst and a statistician. Nevertheless, most reports are basically either sociological or economic. They lack a tightly integrated analysis of the subject matter from all possible angles. For instance, the studies on self help vegetable gardens focused on capturing values and perceptions about gardening but did not carry out an economic assessment of costs and benefits of planting vegetables. Economic indicators such as cost of seeds, fertilizers, water, market prices for surpluses sold, incremental income in cash and kind from self help versus the total family income from other sources, etc., were not used. The study on the market did not check on what counts most: the impact of the new market on the prices of vegetables versus the prices asked by ambulent vendors or verandha shops. The study thus failed to answer the basic question - whether building a new market benefits the project's target group or only benefits those merchants who acquire selling rights on the new market's stalls.

e) Use of Case Studies

The Monitoring and Evaluation Unit resorted to case studies, which are one of the possible strategies for in-depth analysis of impact. However, the case studies were not carried out in a completely satisfactory manner. The case study should be an intensive scrutiny of one group or process, with all the research methods available. Instead, the Monitoring and Evaluation Unit confined its "case studies" to interviewing with or without questionnaires. Practically, no other information was corroborated in the case studies (even the information coming in through regular reporting channel).

Case studies do not require the rigor or formality of design of other research strategies, allowing instead more room for participant observation, for time and family budgets, for comparisons or for any other imaginative way of drawing together diverse pieces of information into a unified interpretation. The case study approach permits the researcher to penetrate the mechanism of a certain process, to use his own perceptions of impact and to get evaluative insights into the expected or unanticipated consequences. The case study should therefore be used as a way to provide leads regarding the conduct and interpretation of more representative studies with larger statistical apparatus.

f) Impact on Incomes and Measurement of Ultimate Effectiveness

Despite all the reports produced by the Unit, information is still insufficient for one - but major - indicator: impact on incomes. What is the evidence for proving the effectiveness of the program in terms of its ultimate goal - raising the incomes of the rural poor?
So far the reports produced by the Unit do not offer an articulate answer to this basic question. Evaluation should provide a measure of the project's impact on the incomes of those affected both directly and indirectly by the project. The main way through which the project has affected incomes is employment creation. About 2500 workers are employed by DWC in the public works program. Most of them were recruited for project works among the previously unemployed village dwellers. The wages gained by these workers affected tremendously the income structure of their families. Yet, no analysis was carried out by the Monitoring and Evaluation Unit among this major group of project beneficiaries. A study on a small sample could have provided important knowledge on income impact at the household level, on change in life-styles, in spending patterns, possibly in saving patterns etc. Also, evaluation should have attempted to assess the future job prospects of the target group, after project created employment would have been terminated. Such evaluation could provide important evidence for assessing the correctness of the project's basic strategy and could lead to a meaningful consideration of additional and/or alternative strategies in rural development.

Moreover, income assessment should not be confined to wages. In the context of the Mauritius Rural Development Project, income should be defined very broadly, to include benefits from self help schemes, farm fodder, indirect benefits from road building, to include the consumption of subsidized services (such as markets or water) supplied by the project.

The lesson to be drawn in that respect is essential. The evaluation effort should never lose sight of the fact that the ultimate measurement of the effectiveness of a rural development project is its impact on the incomes of the poverty group. The formulation of research procedures and the index construction should be consistently subordinated to this goal. All the various component-specific and problem-specific evaluation studies should be orchestrated so as to converge towards such general assessment.

I. THE UNIT'S FUTURE WORK PROGRAM (Chart 2)

Learning from its own experience and responding to the needs of the implementation process, the Monitoring and Evaluation Unit reformulated and improved its research program for 1977-1978 (see Chart 2). The main features of this improved program are:

a) A sharper distinction between monitoring and evaluation studies.

Whenever the time elapsed is not yet enough for certain project outputs to produce a meaningful impact, then the Unit will focus on monitoring. For instance, the new Village Markets and Village Halls, built under the project, should be taken over by the local District and Village Councils and staffed appropriately and their activities organized before they can possibly have any impact. Therefore, the
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MONITORING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Trends in rise of cost of materials (base 1972)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gujadhur</td>
</tr>
<tr>
<td>2. Comparative labor cost changes (base year 1972)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bunjun</td>
</tr>
<tr>
<td>3. Monitoring physical progress and overall project coverings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bunjun</td>
</tr>
<tr>
<td>4. Monitoring the build-up of operating capacity of Village Halls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bunjun/New Economist</td>
</tr>
<tr>
<td>5. Monitoring the build-up of operating capacity of Village Markets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gujadhur/New Economist</td>
</tr>
<tr>
<td><strong>ONGOING EVALUATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Socio-economic impact of vegetable gardens</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mehta/Omar/Gujadhur</td>
</tr>
<tr>
<td>2. Socio-economic impact of home rabbit-rearing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mehta/Gerjanum/Gujadhur</td>
</tr>
<tr>
<td>3. Socio-economic impact of fodder plantation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mehta/Kaidoo/Gujadhur</td>
</tr>
<tr>
<td><strong>LONGER-TERM EVALUATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Project-created employment in public works: social, cultural and economic aspects.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mehta/Gujadhur/Omar</td>
</tr>
<tr>
<td>2. Impact of Project Training (formal and informal)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mehta/Mrs. Ghalmun/Fakim</td>
</tr>
<tr>
<td>4. Strengthening of Village Organization: (a) Youth Clubs; and (b) Role of Women.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mehta/Gerjanum/Omar</td>
</tr>
<tr>
<td>5. Non-productive community self-help activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mehta/Fakim</td>
</tr>
<tr>
<td>6. BASIC STUDIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. National Level Study (before &amp; after)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mehta/Sociologists</td>
</tr>
<tr>
<td>B. Comparative Village Studies (before &amp; after)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mehta/Sociologists</td>
</tr>
<tr>
<td>C. Base Line Study for Impact of Health Centers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mehta/Sociologists</td>
</tr>
</tbody>
</table>

*These studies will be repeated after an interval of two years.*
Unit will carry out two studies simply to monitor whether the operating capacity of the new village amenities is being built properly. It is interesting to note that in this way the Unit will reach outside the immediate realm of authority of the Project Management in order to monitor what happens after the project-built facilities are handed over to other organizations. This monitoring is a necessary precondition for later evaluation of social and economic impact.

b) An improved research methodology and sampling procedure will be used to correct the ambiguities of previous reports and to enhance the quality of evaluation work. Repeater studies will be undertaken on the socio-economic impact of self help vegetable gardens and rabbit rearing.

c) The main emphasis will be put on assessing the ultimate effectiveness of the project's employment strategy and its impact on family incomes. The spectrum of research has been broadened, incorporating studies on the consequences of fodder plantation, on impact of formal and informal training provided by the project and on social and economic impact of new village roads. A major sociological-economic study is carried out in 1977 on the social, cultural and economic effects of the employment created by the project. The study will use a representative sample of previously unemployed village dwellers and their families. Other economic and non-economic benefits generated by the project will be carefully assessed. A special effort will aim at identifying unanticipated project consequences.