



University of Maryland
Sociology Department
College Park, Maryland 20742
(301) 454 - 2602

FINAL REPORT

A STATISTICAL REVIEW OF 44 AID PROJECTS

Kurt Finsterbusch

TABLE OF CONTENTS

Executive Summary 1

Introduction 3

Methodology 5

Characteristics of 44 Selected AID Projects 7

The Causes of Project Success 16

Components of Project Success 22

Other Lessons from the Analysis 24

Variations in Project Success for Different Development Levels . . . 28

Recommendations 31

EXECUTIVE SUMMARY

This report reviews 44 AID projects. An information questionnaire was filled out by the author and a second coder on each report, and each project was subjectively scored on 59 variables using mainly five point scales. This procedure allows for statistical analysis of the reports.

The 44 evaluated projects were not randomly selected so the statistical characteristics of the selected projects cannot be interpreted as an accurate representation of the total population of AID projects. The selection process, however, was not intentionally biased toward any particular type of projects, including successful ones, and a wide range of projects with diverse characteristics was included in the sample. Some observations on the characteristics of these 44 projects as judged by the author are:

1. Slightly less than half of the projects are considered successful in terms of accomplishing at least 80% of their goals.
2. In the author's judgment 27% of the projects failed to achieve even 50% of their goals.
3. Similar percentages had much production (45%) and much positive secondary impacts (43%) versus little production (25%) and little positive secondary impacts (33%).
4. On the average the projects had positive effects on women and the poor, had very small social costs, and had good prospects for future benefits. However, they stimulated little private sector development and benefited the rich more than the poor.

The correlational analysis of the causes of project success or failure emphasize the importance of three factors. First, the project must produce goods and services which are highly valued by the beneficiaries. Second, project success depends heavily on a favorable macro

context including favorable markets, national commitment and national policies. Third, project success depends upon effective administration including provision for adequate maintenance of facilities.

Participation and decentralization are not highly correlated with project success among the 44 projects but their correlations differ considerably for different development levels. Among the least developed countries they have low or negative correlations with project success and their correlations get stronger at higher development levels. It seems that authoritarian practices are not dysfunctional for project success in the least developed countries but are in the more developed countries.

INTRODUCTION

In October 1979 the Agency for International Development began a project evaluation system which would cumulate findings on the impacts of completed projects in order to improve future project designs. The major element in this evaluation system is the AID Project Impact Evaluation Reports. Each report evaluates a completed AID project or series of projects based on two to four week field visits by two to six evaluators. These evaluations are sufficiently standardized to allow for some cross project comparisons for the purpose of deriving general lessons from them. When enough studies are available for a particular type of project these will be analyzed and summarized together. The first of these review studies analyzed the ingredients of successful rural road projects (AID Program Evaluation Report No. 5, Rural Roads Evaluation Summary Report, March, 1982).

The present study reviews and summarizes reports covering 44 projects. The sources are the first 38 Project Impact Evaluation Reports, two Evaluation Special Studies and several draft reports. It builds on the initial review effort of Richard N. Blue, The Development Impact of A.I.D. Projects: A Review of Thirty-One Impact Evaluation Reports, April, 1982 (Xeroxed first draft). Many of the variables examined in this study were discussed by Blue and others were added on the basis of a review by the author of about fifteen project evaluations.

The purpose of this study is threefold. First, the 44 projects are described statistically to give a summary picture of the set of AID projects which have been evaluated to date by the Office Of Eval-

uation. Unfortunately these projects have not been randomly selected, so our statistical summary does not faithfully represent the total population of AID projects. Nevertheless an effort was made by the Office of Evaluation to include a wide range of projects which varied on region, project type, cost, degree of success, implementation approaches, and length of AID involvement. The selectors have not stacked the deck in any obvious way, so these 44 cases may be fairly representative of AID projects even though there is no scientific basis for claiming that they are representative.

The second purpose of this study is to analyze the relationships between various project characteristics and project effectiveness. For this purpose a random sample of projects is less important than for estimating the characteristics of the population of AID projects. The relations between variables in these 44 cases are likely to reflect the relations in the total population of cases with the main source of error being the small number of cases.

The third purpose of this study is to develop a methodology for analyzing, comparing and interpreting the Project Impact Evaluation Reports as they cumulate. For this purpose we have developed a standard information questionnaire which is to be filled out on each report and a set of coding instructions on how to score 59 variables on the basis of the reports (see Appendix A for the version of the questionnaire used in this study, Appendix B for the revised version for future use and Appendix C for the scoring instructions).

METHODOLOGY

The method used in this report is the systematic case review method. The 44 reports are treated as informants and a standard information questionnaire (see Appendix A) is filled out on each report by the coder. In other words the coder judges how the projects score on 59 variables on the basis of the information and discussion contained in the evaluation reports. Two coders were used in this study (the second coder did not score six of the projects). The scores of the two coders were averaged for all computations in this report.

Even though we have devoted considerable effort to achieving reliable judgments on the 59 variables, we have not attained the level of reliability for most variables which is common for systematic studies in the social sciences. Some of the variables allow for considerable leeway in judgment e.g. future benefits and host country commitment to the project. Sometimes coders use a different frame of reference for their judgments even though the information questionnaire and instructions have been revised several times to try to eliminate these disparities. For example, one coder designated a potable water project as part of a continuous program because that country had performed many such water projects, but the other coder designated it as not part of a continuous program because formally it was not. In another example one coder scored an electrification project as distributing less benefits to the poor than to the better off and the other coder agreed that the very poor did not benefit, nevertheless, he judged the big gainers to be the poor rather than the non-poor. In addition, the coding in-

structions are more complex and less precise than is common in most social science studies so there is more chance for coders to misunderstand or forget parts of them. In sum, the findings of this report have sufficient reliability to be taken seriously but must be used cautiously because error ranges are larger than normal.

Fortunately the critical dependent variable, the overall effectiveness score, is the variable with the highest level of agreement between the coders. Overall, the intercorrelation of the two coders scores for slightly over half of the variables was .60 or more. Even for the variables with lower intercoder correlations the averaging of the coders scores should insure reasonable levels of reliability.

This study was made possible by the fact that 44 evaluation reports addressing a common set of issues have been produced by AID evaluation teams in the past two years. Each team spent several weeks in preparatory study and participated in a training workshop. Then each conducted a three to four week field investigation of the completed project and its impacts. The brevity of the field visits necessitated sampling the projects' outputs, impacts and reception by the community, but fairly sophisticated sampling methods were employed where possible and quite intelligent accommodations were made when necessary to difficult research conditions. Project evaluation is a taxing and complex task which requires more than several weeks of investigation by a three to five person evaluation team. Nevertheless, we are impressed with the quality of these reports which were produced under very difficult constraints. A few of the problems were: baseline data usually did not exist, records were seldom complete and little relevant secondary

data was available.

CHARACTERISTICS OF 44 SELECTED AID PROJECTS

The characteristics of the 44 selected projects are presented in Table 1. They represent considerable variance on many factors. They range in size from \$453,000 for a nutrition program in Morocco to \$382 million for rural electrification in the Philippines. The largest AID contribution to a project is \$92 million for the latter project. The projects are spread among the three third world areas of Latin America, Asia and Africa. The Middle East is not represented in the sample because few projects of the type assessed here have been introduced into the Middle East. The selected projects are fairly evenly spread among the three per capita income levels of \$0-499, \$500-999, and \$1000-2000. The projects are also fairly evenly spread among seven project types.

The big question in an evaluation study is how successful is the project? This evaluation of the projects selected for review is mixed. On the one hand many of the reviewed projects are reasonably successful. In terms of attaining at least 80% of their goals 45.5% are considered successful and in terms of overall effectiveness 43.2% are considered successful (score of 7.0 or better). On the other hand, there are also a fairly large number of failures. About one quarter (27.3%) would be classified as unsuccessful in that they failed to attain 50% of their goals or less and 25.0% were unsuccessful in terms of scoring only 3.0 or less on the overall effectiveness scale. One reason why projects failed to attain their goals is miscalculation of the costs required

Table 1 Characteristics of a Non-Random Sample of 44 AID Projects of the Past Two Decades Evaluated by the Office of Evaluation

Note: All classifications are based solely on codings of the author. Some of the original categories have been collapsed in this table because of few entries.

<u>Variable</u>	<u>Scoring</u>	<u>Number of Cases</u>	<u>Percent of Scored Cases</u>
1. Goal Attainment	0% - 24%	3	6.8%
	25% - 49%	9	20.5
	50% - 79%	12	27.3
	80% -100%	20	45.5 ✓
	Exceeds goals	0	0.0 (0%)
2. Overall Effectiveness (Scale of 0-10)	Unsuccessful (0-3)	11	25.0% ✓
	So-so (4-6)	14	31.9 ✓
	Successful (7-10)	19	43.2 ✓
3. Region	Africa	13	29.6
	Asia	20	45.5
	Latin America	11	25.0
4. Completion Date	By 1978	18	41.9
	After 1978	25	58.1 ✓
	NA	1	Missing
5. Realism	Underestimate Costs	14	33.3%
	Good Estimation of Costs	24	57.1
	Overestimates Costs	4	9.5
	NA	2	Missing
6. Project Output	Much Facilities	30	68.2%
	Much Manpower	12	27.3
	Much Technology	7	15.9
	Much Organization	6	13.6
7. Production Increase	None	2	4.5%
	Little	9	20.5
	Modest	13	29.5
	Much	18	40.9
	Exceptional	2	4.5
8. Positive Secondary Impacts	None	4	9.5%
	Little	10	23.8
	Modest	10	23.8
	Much	13	31.0
	Exceptional	5	11.9
	NA	2	Missing

Table 1 Continued:

<u>Variable</u>	<u>Scoring</u>	<u>Number of Cases</u>	<u>Percent of Scored Cases</u>
9. Family Income Increases	None	10	23.8%
	Little	10	23.8
	Modest	6	14.3
	Much	14	33.3
	Exceptional	2	4.8
	NA	2	Missing
10. Social Benefits	None or Little	10	24.4%
	Modest	15	36.6
	Much	13	31.7
	Exceptional	3	7.3
	NA	3	Missing
11. Productivity	Very Little	9	21.4%
	Below Average	11	26.2
	Average	7	16.7
	Above Average	13	31.0
	Exceptional	2	4.8
	NA	2	Missing
12. Continuance	Not Continue	0	0.0%
	Serious Problems	14	31.8
	Average	12	27.3
	Better than Average	17	38.6
	Exceptional	1	2.3
13. Benefits for Poor	None or Little	10	23.3%
	Modest	12	27.9
	Much	19	44.2
	Exceptional	2	4.7
	NA	1	Missing
14. Relative Benefits for Poor	Less than Rich	26	59.1%
	Average	7	15.9
	Above Average	7	15.9
	Mainly Benefit Poor	4	9.1
15. Private Sector Development	None	17	42.5%
	Little	8	20.0
	Modest	7	17.5
	Much	6	15.0
	Exceptional	2	5.0
	NA	4	Missing
16. Social Costs	None	32	72.7%
	Very Little	6	13.6
	Little	2	4.5
	Very Modest	3	6.8
	Modest and Much	1	2.3

Table 1 Continued:

	<u>Variance</u>	<u>Scoring</u>	<u>Number of Cases</u>	<u>Percent of Scored Cases</u>
✓ 17.	Effects on Women	Very Negative	0	0.0%
		Negative	2	5.0
		Neutral	8	20.0
		Positive	26	65.0
		Very Positive	4	10.0
		NA	4	Missing
18.	Problems Fitting Macro Context	Very Severe	6	14.0%
		Moderate	7	16.3
		Few	8	18.6
		None	22	51.2
		NA	1	Missing
19.	Compatibility to Local Values	Very Little	2	4.5%
		Modest	7	15.9
		Good	8	18.2
		Excellent	27	61.4
20.	Future Benefits	Little	12	27.3%
		Modest	10	22.7
		Much	11	25.0
		Exceptional	11	25.0
21.	Future Costs	None	9	20.5%
		Little	20	45.5
		Modest	12	27.3
		Much	3	6.8
		Exceptional	0	0.0
22.	Public Participation in Project Design	None	33	75.0%
		Little	11	25.0
		Modest	0	0.0
		Much	0	0.0
23.	Public Participation in Project Implementation	None	5	11.9%
		Little	21	50.0
		Modest	15	35.7
		Much	1	2.4
		NA	2	Missing
24.	Public Participation in Project Maintenance	None	10	32.3%
		Little	12	38.7
		Modest	9	29.1
		Much	0	0.0
		NA	13	Missing
25.	Understanding and Coordination Among Agencies	Very Poor	4	9.8%
		Poor	13	31.7
		Average	9	22.0
		Good	15	36.6
		Exceptionally Good	0	0.0
		NA	3	Missing

Table 1 Continued:

<u>Variable</u>	<u>Scoring</u>	<u>Number of Cases</u>	<u>Percent of Scored Cases</u>
26. Understanding and Coordination Between Agencies and the Public	Very Poor	2	5.0%
	Poor	13	32.5
	Average	10	25.0
	Good	13	32.5
	Exceptional	2	5.0
	NA	4	Missing
27. Quality of Design ✓	Very Bad	6	13.6%
	Poor	9	20.5
	Average	8	18.2
	Good	19	43.2
	Exceptionally Good	2	4.5
28. Quality of Implementation ✓	Very Bad	4	9.1%
	Poor	10	22.7
	Average	9	20.5
	Good	18	40.9
	Exceptionally Good	3	6.8
29. Schedule ✓	Very Bad	7	15.9%
	Poor	6	13.6
	Average	14	31.8
	Good	16	36.4
	Exceptionally Good	1	2.3
30. Problems ✓	None	4	9.1%
	Little	6	13.6
	Moderate	15	34.1
	Many	19	43.2
31. Part of a Continuous Program	No	12	27.3%
	Partly	7	15.9
	Entirely	25	56.8
32. Host Country Commitment	Little	5	11.4%
	Moderate	14	31.8
	Much	16	36.4
	Exceptional	9	20.5
33. Host Country Policies' Compatability	Antithetical	4	9.8%
	Slightly Antithetical	4	9.8
	Neutral	17	41.5
	Positive	12	29.3
	Very Positive	4	9.8
	NA	3	Missing
34. Market Factors	Antithetical	5	12.2%
	Slightly Antithetical	3	7.3
	Neutral	12	29.3
	Positive	18	43.9
	Very Positive	3	7.3
	NA	3	Missing

Table 1 Continued:

<u>Variable</u>	<u>Scoring</u>	<u>Number of Cases</u>	<u>Percent of Scored Cases</u>
35. Coordination Problems	None	15	34.9%
	Little	11	25.6
	Modest	8	18.6
	Much	9	20.9
	NA	1	Missing
36. Maintenance to End of Project	None	1	3.1
	Poor	9	28.1
	Good	7	21.9
	Fully	15	46.9
	Improve	0	0.0
	NA	12	Missing
37. Maintenance Since End of Project	None	1	3.1%
	Poor	10	31.3
	Good	11	34.4
	Fully	10	31.3
	Improve	0	0.0
	NA	12	Missing
38. Decentralization	Centralized	5	11.6%
	Slight Decentralization	5	11.6
	Moderate Decentralization	16	37.2
	Much Decentralization	15	34.9
	Local Self Sufficiency	2	4.7
	NA	1	Missing
39. Adequacy of Financing	Very Inadequate	3	6.8%
	Somewhat Inadequate	11	25.0
	Adequate	27	61.4
	More than Adequate	3	6.8
40. Incentives	Lacking	1	2.3%
	Small	10	23.3
	Moderate	10	23.3
	Large	22	51.1
	NA	1	Missing
41. Causes Within Project Control	No	7	15.9%
	Partly	27	61.4
	Largely	10	22.7
42. Host Country Development Level (per capita income)	\$0 - 499	14	31.8%
	\$500 - 999	16	36.4
	\$1000 - 1999	14	31.8
43. Total Cost of Project	Less than \$1 million	3	6.8%
	\$1-10 million	17	38.6
	\$10-50 million	16	36.4
	\$50+ million	8	18.2

Table 1 Continued:

<u>Variable</u>	<u>Scoring</u>	<u>Number of Cases</u>	<u>Percent of Scored Cases</u>
44. AID Contribution	Less than \$1 million	7	15.9%
	\$1-10 million	21	47.7
	\$10-50 million	14	31.8
	\$50+ million	2	4.5
45. Adequacy of Data Base	Very Inadequate	3	6.8%
	Moderately Inadequate	21	47.7
	Slightly Inadequate	15	34.1
	Adequate	5	11.4

to accomplish their goals. One third underestimated costs significantly. (The realism of cost projections correlates with goal attainment at $r=.72$.)

Next we consider the type of output produced by the projects. Most projects (68.2%) involve considerable construction of facilities, i.e., roads, irrigation systems, electric power systems or water systems. In fact only 13.6% involved no facility construction worth noting. The next most frequent factor of production produced by the projects is trained manpower (27.3%). Much organizational development or institution building occurred in only 13.6% of the projects. However, some organizational development worthy of note occurred in 70.5% of the projects. In only 47.7% of the projects did new technology, not readily available in the host country, transfer.

Factors of production are only means to ends. Unless they produce those ends the projects fail. In this regard 25.0% of the projects failed because they produced little, and 45.4% succeeded in producing much (they may fail, however, on other grounds). Another 29.5% are responsible for modest increases in production. The types of production considered in variable 7 of Table 1 are increased amounts of transportation, increased agricultural production for irrigation works and agricultural research, increased use of water or electricity, more students, or improved health for health projects.

Usually AID expects positive secondary impacts to derive from the production increases, but this does not always occur. About 43% of the projects did have considerable positive secondary impact, but about a third had little positive secondary impacts. The distribution was

roughly comparable for social benefits but worse for increases in family income.

Variables 11-17 and 20 are special concerns of AID. The reviewed projects have a mixed record on these variables. On the average they have positive effects on women, very little social costs and good prospects for future benefits. On the other hand, they stimulate little private sector development and benefit the rich more than the poor. They have a fair record on continuance and producing benefits for the poor and a mediocre record on productivity.

Variables 18, 19 and 27 deal with how well conceived the project is. We find that most fit both the macro and the micro context and are judged to be well designed. A fairly large number (34.1%), however, are judged to be poorly designed. There clearly is room for improvement.

Variables 22-42 are included in Table 1 because the literature suggests that they contribute to the success or failure of projects. We will not comment on their frequency distributions, however, but discuss them in the correlational analysis which follows.

The last variable in Table 1 does not describe the projects but the reports. How adequate was the information which they provided for answering the questions in this information questionnaire? In the author's judgment only three were very inadequate and the rest provided sufficient information to allow almost all variables to be subjectively scored. Some scores include considerable guessing but most are reasonably informed.

THE CAUSES OF PROJECT SUCCESS

The major interest of our analysis is in the causes of project success. Based on Blue's analysis (1982), the literature on development projects and an initial review of fifteen project impact evaluation reports we have selected 23 possible causal variables for examination in this study. They are presented in Table 2 along with their zero order Pearson correlations with two measures of project success:

- 1) The evaluation teams' estimation of success in terms of degree of goal attainment
- 2) The coder's assessment of an overall effectiveness score (an inclusive benefit/cost score which includes non-economic benefits and costs)

Since the degree of goal attainment is partially dependent on the realism of the goal in light of the level of funding, we include in the analysis the correlation between the realism of the cost projections on which the goals are premised. Realism is significantly correlated with the team's goal attainment scores indicating that a fair number of projects would have been scored as more successful if judged in terms of more realistic goals.

The major finding of Table 2 is that the main factor which differentiates between successful and unsuccessful projects is the desirability of the goods or services provided by the project. This finding is based on the high correlations of project success with incentives and with market factors. What could be more obvious than this finding that projects must produce a product which is valuable to the benefici-

Table 2 Pearson Correlations for 23 Selected Characteristics of AID Projects and Their Contexts with Two Measures of Project Success (n=44 projects)

	Goal Attainment		Overall Effectiveness	
	r	p	r	p
Incentives and Motivation	.80	.000	.76	.000
Realism of Project Costs	.72	.000	.68	.000
Favorable Market Factors	.65	.000	.67	.000
Maintenance: During	.47	.004	.56	.000
Conducive Macro Context	.48	.001	.54	.000
Compatible Policies of Host Country	.43	.002	.54	.000
Understanding Among Agencies	.49	.001	.54	.000
Coordination	.48	.001	.50	.000
Host Country Commitment	.38	.005	.50	.000
Maintenance: Since	.38	.016	.49	.002
Schedule on Time	.53	.000	.49	.000
Understanding with the Public	.46	.001	.49	.001
Adequacy of Financing	.41	.003	.48	.000
Maintenance: Future	.36	.020	.47	.004
Participation in Implementation	.34	.017	.41	.004
Conducive Local Values	.46	.001	.41	.003
AID Involvement	.43	.007	.28	.055
Participation in Maintenance	.22	.117	.26	.081
Part of Continuous Program	.12	.224	.26	.047
Participation in Design	.20	.095	.25	.054
Country Development Level	.23	.070	.21	.086
Decentralization	-.01	.472	.13	.197
Total Costs	-.16	.148	-.12	.218

aries? Nevertheless, it is a lesson which must be learned again and again. Sometimes AID still funds projects which provide low value products. Roads are built which are barely used, potable water goes undrunk because of the chlorine taste, or health programs are provided in areas where more valued alternatives are available. Thus a major reason for project failure seems to be inadequate testing of the desirability of the product of the project and inadequate assessment of the conduciveness of market factors.

The next most important factor contributing to project success is the compatibility of the macro context to the project. This finding is indicated by the high correlations of project success with market factors again ($r=.67$) and with compatible host country policies (.54), fit with macro context (.54), and host country commitment (.50). Table 2 suggests that fitting the macro context is more critical to project success than fitting the micro context. One reason for this is the fact that most projects fit the micro context in that they did not run counter to the local system of values. As a result, there was relatively little variance on this variable and it had a more modest correlation with project success. Communities want roads, electricity, health, education, piped water, etc. if they can get them at affordable costs, and community values are generally supportive of most aspects of these types of projects. Variables with little variance are not critical explanatory factors. Nevertheless, they cannot be ignored. They may be very important in the few cases for which they have exceptional values.

The third factor contributing to project success is administrative effectiveness as indicated by the generally high correlations of adminis-

trative factors with project success: understanding among agencies (.54), coordination (.50), and schedule on time (.49). Being part of a continuous program has a rather low correlation with project effectiveness (.26), but it turns out to be important in the multiple regression analysis reported later. We should also note that administrative characteristics may be understated in our statistics.

The final factor which is critical to project success is maintenance. Obviously when facilities are breaking down or deteriorating before the project is complete or within a few years of the project, the project cannot be considered successful.

It is also important to note that public participation has rather modest effects on project success. Public participation in implementation seems to be quite valuable, but public participation in project design is less so. In fact many of the successful projects lacked any public participation in their design. Several were successful agricultural research projects which used farmers' inputs in the research stage but not in the design of the project. Furthermore, we will show later that public participation turns out to be fairly important in certain settings.

One might conclude from the above list of factors which associate with effectiveness that level of development is a basic cause of effectiveness. The more developed societies generally have more of these factors than the less developed societies. It turns out, however, that level of development is only modestly related to goal attainment ($r=.23$) and overall effectiveness ($r=.21$), so level of development is not a basic cause of project effectiveness. Furthermore, we tested whether

controlling for development level changed the correlations between the variables in Table 2 with project success and found that it did not.

To this point we have discussed the factors which are correlated with goal attainment and effectiveness. The next question to consider is how much of the picture is still missing. We only look at 23 factors but many other factors contribute to project success or failure. How important are the factors which are left out? We obtain a rough idea by using a multiple regression correlation of the factors in Table 2 with goal attainment and effectiveness. We have a problem, however, because 23 variables are too many to use in a multiple regression equation with so few cases. Therefore, we drop realism of project costs and all variables missing more than four scores and use the remaining 16 variables in two stepwise multiple regression analyses with goal attainment and overall effectiveness as the dependent variables.

The results presented in Table 3 indicate that four variables explain 80% of the variance in goal attainment, and five variables explain 77% of the variance in overall effectiveness. Thus only 20% and 23% of the variance is left unexplained in goal attainment and overall effectiveness respectively.

The most important independent variable for explaining variance in goal attainment is incentives and motivation. Good scheduling, centralization and favorable market factors also contribute to goal attainment. Incentives and motivation is also the most important variable in explaining overall effectiveness. In addition, being part of a continuous program, good scheduling, market factors and coordination explain additional variance in overall effectiveness. In sum, these multiple

Table 3 Two Stepwise Multiple Regression Analyses with Goal Attainment and Overall Effectiveness as the Two Dependent Variables with the 16 Variables in Table 2 with at Least 40 Cases as the 16 Independent Variables (limited to 5 steps or $F > 1.0$)

Dependent Variable: Team Assessed Goal Attainment (n=39)

<u>Step</u>	<u>Independent Variables</u>	<u>Multiple r</u>	<u>r²</u>	<u>r² Change</u>	<u>Simple r</u>	<u>beta</u>
1	Incentives and Motivation	.809	.655	.655	.809	.606
2	Schedule: On Time	.868	.753	.098	.512	.370
3	Decentralization	.886	.785	.036	-.007	-.167
4	Favorable Market Factors	.895	.801	.016	.659	.182

Dependent Variable: Overall Effectiveness (n=39)

<u>Step</u>	<u>Independent Variables</u>	<u>Multiple r</u>	<u>r²</u>	<u>r² Change</u>	<u>Simple r</u>	<u>beta</u>
1	Incentives and Motivation	.768	.589	.589	.768	.446
2	Part of a Continuous Program	.824	.680	.090	.374	.238
3	Schedule: On Time	.852	.726	.046	.457	.164
4	Favorable Market Factors	.872	.760	.034	.668	.286
5	Coordination	.879	.774	.014	.483	.159

regression equations highlight the importance of the value of the project product and administrative effectiveness in explaining project success.

COMPONENTS OF PROJECT SUCCESS

We also correlated 14 variables which are components of project success with goal attainment and overall effectiveness (see Table 4). These include measures of outputs, benefits, costs, and future utilization. Successful projects effectively produce factors of production (facilities, manpower, technology, or organizational development) and these factors are effectively utilized in producing goods and services. In addition successful projects cause largely beneficial secondary impacts and the benefits of projects have good prospects for continuing. Social costs, net effects on women, private sector development and the relative distribution of benefits to the poor are also related to project success but much less strongly. We suggest, however, that these modestly correlated components be considered as important to project success and make the following comments in support of this suggestion.

First, as Table 1 shows only two of 40 classified projects had net negative effects on women and most projects had positive effects. Also only three of 44 projects has much future costs and two thirds had none or little future costs. Variables with little variance usually have little explanatory power but they still can be important factors in the few cases for which they have exceptional scores. Second, private sector development may be only moderately related to project suc-

*1. What do unsuccessful projects produce?
2. Are all projects that produce these things successful?*

Table 4 Pearson Correlations of Components of Project Success with Two Measures of Project Success (n=44 projects)

	Goal Attainment		Overall Effectiveness	
	r	p	r	p
Amount of Factors of Production Produced	.77	.000	.74	.000
Amount of Production Resulting from the Factors	.63	.000	.71	.000
Productivity: Ratio of Production to Factors of Production	.75	.000	.79	.000
Total Positive Secondary Impacts	.69	.000	.74	.000
Increase in Family Income	.70	.000	.75	.000
Social Benefits	.65	.000	.65	.000
Continuance of Benefits	.58	.000	.65	.000
Amount of Benefits for the Poor	.63	.000	.70	.000
Poor/Non-Poor Benefit Ratio	.35	.010	.24	.057
Private Sector Development	.15	.172	.29	.034
Social Costs	-.26	.042	-.23	.070
Benefit/Costs for Women	.34	.016	.45	.002
Future Benefits	.73	.000	.80	.000
Future Costs	-.21	.089	-.28	.032

cess because it is related to facility construction ($r=.40$) which tends to be negatively related to success. Finally, poor/rich benefit ratios may be only moderately related to project success, but even a modest positive relationship is a good sign. It is often assumed that success must be sacrificed somewhat when a project tries to benefit the poor more than the rich and such does not seem to be the case in this sample of projects.

OTHER LESSONS FROM THE ANALYSIS

We have explored the causes of success and failure of projects, and now consider other lessons from the analysis. In particular we want to understand better why some projects have more lasting effects as indicated by the continuance of benefits, maintenance and future benefits. Selected variables are correlated with these factors in Table 5 and a multiple regression analysis for future benefits is presented in Table 6.

The three dependent variables (continuance, maintenance and future benefits) are studied together because they overlap. Their intercorrelations are $r_{CM}=.58$, $r_{CF}=.77$, and $r_{MF}=.61$ (the three maintenance variables in Table 2 are highly correlated so we use only one of them in this section, i.e. maintenance to the end of the project). They are strongly correlated with goal attainment and the overall effectiveness because they contribute to project success. On the other hand, when the project is successful, it creates stronger incentives to maintain and sustain the project's outputs.

Table 5 Pearson Correlations of Selected Characteristics of Projects and Their Settings with Project Continuance, Maintenance, and Future Benefits (n=44 projects)

Variable	Correlation with		
	Continuance n=44	Maintenance n=32	Future Benefits n=44
Completion Date	-.17	-.25	-.25
Amount of Factors Produced	.51	.42	.73
Amount of Production	.46	.35	.62
Productivity	.48	.36	.67
Amount of Secondary Benefits	.59	.40	.76
Private Sector Development	.22	.20	.29
Conducive Macro Context	.50	.12	.57
Conducive Local Values	.35	-.10	.41
Participation in Design	.06	.41	.21
Participation in Implementation	-.04	.11	.18
Participation in Maintenance	.20	.35	.36
Understanding Among Agencies	.45	.24	.57
Understanding with the Public	.26	.41	.42
Part of Continuing Program	.29	.20	.24
Host Country Commitment	.46	.38	.62
Compatible National Policies	.55	.20	.60
Favorable Market Factors	.61	.23	.56
Coordination	.22	.48	.32
Decentralization	.17	.39	.11
Adequacy of Financing	.61	.45	.48
Incentives and Motivation	.60	.40	.71
Country Development Level	.25	.22	.08
Total Costs	.02	.14	-.05
Goal Attainment	.58	.47	.73
Overall Effectiveness	.65	.56	.80
Continuance of Benefits		.58	.77
Maintenance to End of Project			.61

Table 6 Stepwise Multiple Regression Analysis with Future Benefits the Dependent Variable (n=39)

<u>Step</u>	<u>Independent Variables</u>	<u>Multiplier r</u>	<u>r²</u>	<u>r² Change</u>	<u>Simple r</u>	<u>beta</u>
1	Incentives and Motivation	.715	.511	.511	.715	.346
2	Host Country Commitment	.813	.661	.150	.643	.373
3	Conducive Macro Context	.838	.702	.041	.658	.263
4	Understanding with the Public	.850	.722	.020	.412	.152

According to Table 5, high continuance and future benefits are found on the average in productive projects which produced considerable factors of production, production itself, and secondary benefits. They also had adequate financing, good motivation and incentives, favorable market conditions, compatible host country policies, host country commitment, good understanding among agencies, and a conducive macro context. These tend to be the variables which are also crucial to project success (see Table 2). On the other hand, public participation, private sector development, part of a continuing program, development level, decentralization, coordination, and project costs appear to contribute little continuance and future benefits. We also note that continuance, maintenance and future benefits do not seem to be improving through time.

A slightly different picture emerges for maintenance. According to Table 5 the macro context is less important for good maintenance while local participation and control seems to be more important.

In Table 6 we present the stepwise multiple regression analysis for future benefits. Again incentives of implementing personnel and beneficiaries are crucial along with the macro context including the commitment of the government. In addition the understanding and receptivity of the public enhances the possibility of future utilization of the benefits of the project.

Obvious

important to consider or at least test

VARIATIONS IN PROJECT SUCCESS FOR DIFFERENT DEVELOPMENT LEVELS

Earlier we pointed out that development level is not highly correlated with project success. Nevertheless we hypothesize that the importance of various factors to project success would differ for various levels of development. We expect centralization and authoritarian conduct of the project to be better suited to lower levels of development. We also expect project success in the least developed countries to be more dependent on heavy AID involvement, being part of a continuous program and having host country commitment than in the more developed countries, because the more developed countries should have more resources to compensate for the absence of these factors. Furthermore, the least developed countries might have more difficulty handling larger projects. Finally, for the remaining factors we expect little variation across development levels.

Less outreach capability
More complex, greater need for "efficiency"

To test these ideas we divide the 44 cases into three levels of GNP per capita: 1) \$0-\$499 (14 cases), 2) \$550-\$999 (16 cases), and 3) \$1000 and more (14 cases). Then we correlate the factors in Table 2 with both measures of project success for each subset of countries and present the results in Table 7. Some of our expectations are supported in Table 7, but we must point out that the number of cases is very small and our analysis must be viewed as tentative.

As expected some factors were fairly strongly correlated with project success in all subgroups i.e. incentives, market factors, and understanding among involved agencies. We also expect compatibility of host country policies, fitting macro context, fitting local values, coordination, good scheduling, adequacy of financing and maintenance to be impor-

Table 7 Pearson Correlations of 21 Selected Characteristics of Projects and Contexts with Two Measures of Success: Goal Attainment (GA) and Project Effectiveness (PE) for 44 Cases and for Three Subsets of Projects Grouped by Development Level (GNP per capita).

Variables	all		GNP per Capita in US Dollars					
	GA	PE	\$0-\$499		\$500-\$999		\$1000 +	
	GA	PE	GA	PE	GA	PE	GA	PE
Incentives and Motivation	.80	.76	.82	.79	.74	.74	.85	.85
Favorable Market Factors	.65	.67	.75	.74	.59	.61	.38	.66
Maintenance: During	.47	.56	.31	.32	.31	.43	.81	.90
Conducive Macro Context	.48	.54	.45	.33	.21	.33	.67	.87
Compatible National Policies	.43	.54	.35	.37	.46	.52	.44	.66
Understanding Among Agencies	.49	.54	.58	.60	.34	.29	.61	.75
Coordination	.48	.50	.22	.14	.65	.64	.47	.62
National Commitment	.38	.50	.11	.16	.60	.64	.51	.63
Maintenance: Since	.38	.49	.23	.29	.22	.31	.65	.78
Schedule on Time	.53	.49	.26	.15	.57	.52	.76	.66
Understanding with Public	.46	.49	.22	.06	.51	.56	.73	.70
Adequacy of Financing	.41	.48	.24	.40	.32	.42	.64	.55
Maintenance: Future	.36	.47	.28	.37	.32	.40	.55	.67
Participation in Implementation	.34	.41	.15	-.05	.26	.45	.62	.66
Conducive Local Values	.46	.41	.40	.27	.22	.22	.74	.67
AID Involvement	.43	.28	.85	.88	-.10	-.11	.55	.29
Participation in Maintenance	.22	.26	.18	.02	-.06	.17	.74	.64
Part of Continuous Program	.12	.26	.11	.20	.28	.43	-.07	.14
Participation in Design	.20	.25	.13	.01	.25	.43	.42	.34
Decentralization	-.01	.13	-.32	-.26	.11	.29	.34	.39
Total Costs	-.16	-.12	-.55	-.38	.14	.02	.20	.24
Number of Cases	44		14		16		14	

tant at all development levels but find them to be the most highly correlated with project success among the most developed host countries for these projects. This finding suggests that patterns of project success take more definite shape after national development has progressed considerably, but this notion needs further testing.

As expected we do find evidence that centralized and authoritarian administration of projects is much more positively related to project success in the least developed set of countries than the most developed set. High levels of public participation in project design, implementation and maintenance; agencies having a good understanding with the public, and decentralization are lowly or negatively correlated with project success in low development countries but are moderately or strongly correlated with project success in the more developed countries. Authoritarian and centralized administration of projects either aids project success or does not hurt it in the least developed countries but seems to be dysfunctional in the more developed countries.

Our expectation about being part of a continuous program and host country commitment being more important to low development countries is rejected by the data presented in Table 7. The opposite seems to be the case. Both factors correlate more highly with project success among the more developed countries. Our expectation about the greater need for heavy AID involvement in the low developed countries² seems to be supported but not clearly so.

Finally, our expectation that the low developed countries might have difficulties handling the larger projects seems to be supported by the negative correlation of project success with total cost of the project for the low developed countries. We must be cautious, however, about this and other findings since they are based on populations of 14 to 16 cases. All of these findings are merely suggestive at this stage and need

further testing.

RECOMMENDATIONS

All recommendations based on this analysis must be considered as tentative. The sample of cases is small and not truly random, and the coding system needs to be improved. Furthermore, the reports on which it is based were produced by evaluation teams with only a month or less in the field. They are commendable evaluation reports under the circumstances but are limited in the amount of systematic data which they contain. Finally these reports might be biased. Since they were dominated by AID personnel they might draw a more positive picture than really exists. We do not make this accusation but it must be admitted as a possibility and our study can be no better than the reports on which it is based.

With the above caveats in mind we propose that 44 cases are sufficient for noticing patterns of association between the variables being studied. They are insufficient for sustaining multivariate analyses, however, which seek to determine with confidence the relationships between variables when the other relevant variables are controlled.

It should be noted at the start that the following recommendations are not summaries of the recommendations contained in the reports. We think that those recommendations are most usefully analyzed in the summary reports covering specific types of projects such as the summary report on rural roads (AID Program Evaluation Report No. 5). Rather the following recommendations largely grow out of the quantitative analysis presented above.

*We have to decide on needs/objectives/
users of reports first.*

DATA REQUIREMENTS. We recommend two major and many minor additions to the data normally included in this series of reports. First, the evaluation reports must more clearly and extensively describe the role of AID in the design, implementation and monitoring of the projects. Most reports say very little about the role of AID. As a result these reports fail to provide feedback on variations in AID practices and how they relate to project success and other characteristics. This shortcoming limits their usefulness for improving future AID projects.

Our second major recommendation is that AID develop standards for assessing success for facility construction projects. These standards would compare the productions (produced by the facilities) to the costs of constructing and maintaining the facilities. The production of roads is increased transportation and reduced transportation costs. Most road reports calculated the cost per km of road. This statistic is useful for evaluating road projects, but more important is the "transportation benefit" per dollar invested in roads. Likewise, we would like to know how many gallons of water are consumed per dollar invested in potable water systems, how many kilowatts of electricity are consumed per dollar invested in rural electrification, how many tons of grain are produced per dollar invested in irrigation systems (or in agricultural research). These numbers could not be directly compared across project types, but they could be compared within project types. Furthermore, a judgmental scale could be constructed by experts which classifies various amounts of production delivered per dollar as very bad, bad, poor, average, good, very good and outstanding, and these scales might allow rough comparisons across project types.

Might be worth a try; situation very difficult since we have few projects to limit to see costs & some times trade-offs here for improvements in terms of people or facilities is necessary

Worth a try. but academics should do.

- Some

Frame for research rpts, suit for operational level rpts

Our third recommendation is that many variables used in this analysis should be more clearly addressed in the evaluation reports. Specifically we suggest:

- ✓ 1. The people, organizations, or agencies which participated in project design, implementation and/or maintenance should be ~~X~~ identified and their role specified.
- ✓ 2. Specifically address typical family income changes. This is an important way to describe secondary impacts.
- ~~X~~ 3. References to private sector development are normally inadequate. Indicate the contribution of the private sector to project implementation and maintenance and the ways in which the project stimulates private sector activity.
- ? 4. Include a schedule of the stages and components of the project.
- ~~X~~ 5. Compare the benefits and costs of the project for women to those for men.
- ~~XX~~ 6. Identify more sharply the social costs, relevant market factors, the degree of decentralization, relevant national policies, and relevant macro context.
- ~~X~~ 7. Discuss the implementation process more systematically in terms of skills, motivation, coordination, schedule, articulation with the public and problems encountered.
- ✓ 8. Try to assess the value to the beneficiaries of the goods and services produced by the project.

Xo & XX's would require more time to prepare if info available, would make rpts longer than winter - ally all staffers could manage

Company to legis-lation / Cong- session also intent.

?

PROJECT DESIGN. Projects are designed to produce factors of production in order to increase both production and positive spread effects. AID has learned over the years that just increasing or improving the factors of production does not necessarily increase production or positive spread effects. Increasingly AID has designed projects which try to link increasing factors of production with actual increases in production and spread effects. Nevertheless, the reviewed reports include a number of cases where production did not increase or positive spread effects did not occur. We recommend, therefore, that AID seek to im-

No such quantity.

prove its project design procedures in three ways. First, sufficient sociocultural and economic research should be conducted prior to project ratification to insure that beneficiaries will in fact utilize the factors of production and that positive spread effects are likely. Currently sociocultural feasibility is assessed in the project planning stage, and this helps improve the ratio of benefits to costs. The emphasis in sociocultural feasibility studies, however, is on preventing negative spread effects (a very important action), and we are recommending the addition of research designed to insure much utilization and positive spread effects. In this regard we recommend more use of pilot projects to test the rate of utilization and the extent of spread effects when new projects are introduced.

Traditional limited expansion feasibility.

Resources for eff.

Resources

Our second design recommendation is to search out locations for projects which are likely to maximize the utilization of the produced factors of production and the spread of positive effects. This precept is already AID policy but we recommend even more stress on it.

Our third design recommendation is to add programs for stimulating utilization and spread effects to projects when necessary. Sometimes training is necessary for full utilization of new facilities and sometimes organizational or institutional innovations are needed to fully utilize new manpower or new technologies. Often AID projects have such programs in their project designs, but all too frequently these programs are not carried out or are implemented half-heartedly.

NEW EMPHASES. The analysis of the correlates of goal attainment and overall effectiveness assessments indicates the importance of sev-

eral variables to project success. Accordingly we recommend that greater emphasis be placed on:

1. insuring high motivation and adequate incentives of project personnel and of beneficiaries, *We try*
- ? 2. implementing projects where market conditions are favorable,
3. insuring a good fit of the project with local values and the macro context, *OK but change some things important*
- We do* 4. working for good understanding and coordination among the involved agencies and between the agencies and the public,
- ✓ 5. providing for adequate maintenance,
- We do* 6. working on scheduling and coordination, and
- ✓ 7. implementing projects with adequate funding or not at all.

APPENDIX A

Project Scoring Sheet for AID Projects

- 1. Publication number _____ Date _____
- 2. Publication Name _____

- 3. Project Dates _____
- 4. Project Type _____

SCORE

EVALUATION

- 5. Project Goals: Major _____
Minor _____
- 6. Indicators of Goals: a)Major _____

- b)Minor _____
- 7. Attainment of Goals:
a)Team Evaluation

b)Realism of Cost Projections

c)My evaluation

- 8. Benefits:
 - a) Factors of Production
 - 1) Facilities _____
 - 2) Manpower _____
 - 3) Technology or Knowledge _____
 - 4) Organization _____
 - b) Production of goods, services or well-being
 - c) Impacts (secondary benefits of production or multiplier effects)
 - 1) Family Income Benefits

2) Social Benefits

3) Other Secondary Benefits of Production

d) Productivity (ratio of production and secondary benefits to the changes in the factors of production)

e) Continuance of Factors of Production (Facilities, manpower, knowledge, or organization) in terms of:

(1) Sufficiency of revenues _____

(2) Role of beneficiaries (maintenance, utilization, etc.) _____

(3) Shifted to non project uses _____

(4) Individual & institutional capacity _____

(5) Individual & institutional incentives _____

(6) Economic policies _____

(7) Bureaucratic and general politics _____

f) Net Amount of Benefits to the Poor

(1) Direct

(2) Indirect

g) Relative Distribution of Benefits to the Poor

h) Private Sector Development

9. Costs:

a) Economic Costs:

(1) Total Costs _____

(2) AIDs Contribution _____

(3) Other donor's contribution _____

(4) Beneficiaries' contribution _____

(5) Budget breakdown _____

b) Social Costs

c) Environmental Costs

10. Effects on Women

a) Benefits

b) Costs

c) Net

11. Other Project consequences (secondary)

12. Sociocultural Feasibility:

a) Problems Fitting the Macro Context

b) Problems Fitting Local Values & Social Structures

13. Future Impacts:

a) Benefits

b) Costs

14. Total Benefit/Cost Assessment

IMPLEMENTATION

15. Agency _____

16. Participation by beneficiaries (or the public) in:

a) Design and implementation _____

b) _____

17. Understanding & Cooperation
a) Between Involved Agencies _____

b) Between Involved Agencies and Public _____

18. AID's Role in Implementation & Monitoring _____

19. Quality of Design of Project _____

20. Quality of Implementation of Project _____

21. Schedule _____

22. Problems _____

23. Additional Factors Contributing to Success or Failure:

a) Part of Continuous Program _____

b) Host Country Development _____

c) Host Country Commitment _____

d) Host Country Policies Compatible _____

e) Market Factors _____

f) Coordination Problems _____

g) Maintenance of Facilities

(1) To end of project _____

(2) Since end of project _____

(3) In the Future _____

h) Decentralization _____

i) Adequacy of Financing _____

j) Incentives _____

SCORE

- k) Other Factors _____

- l) Causes within control of Project _____
- m) Main Reason for Success (answer if #7 is 2, 3 or 4) _____

- n) Main Reason for Failure (answer if #7 is 0, 1 or 2) _____

REPORT CHARACTERISTICS

24. Evaluation Team Characteristics

25: Methodology

26. Adequacy of Data Base

27. Conclusions

COMMENTS

REASONS FOR SUCCESS OF PROJECT # _____

Instructions: Check all reasons that apply for success of the project in the left column and rank the three most important reasons for success in the right column.

Check (✓) if apply	<u>Reasons for Success</u>	Rank (1=1st, 2=2nd, 3=3rd)
_____	Provides a valuable good or service	_____
_____	Good private sector response	_____
_____	Unanticipated economic benefits	_____
_____	Unanticipated social benefits	_____
_____	Equitable distribution of costs and benefits	_____
_____	Appropriate for the macro context	_____
_____	Appropriate for local values and structures	_____
_____	Promising future net benefits	_____
_____	Public participation	_____
_____	Understanding and Cooperation among agencies and the public	_____
_____	Quality of project design	_____
_____	Quality of project implementation	_____
_____	Schedule	_____
_____	Part of a continuous project	_____
_____	Host country development level	_____
_____	Host country commitment	_____
_____	Host country policies compatible	_____
_____	Market factors	_____
_____	Coordination	_____
_____	Good maintenance	_____
_____	Degree of centralization	_____
_____	Adequacy of financing	_____
_____	Incentives	_____
_____	Other causes (list)	_____

Personalities
Timing
Political considerations
Weather

REASONS FOR FAILURE OF PROJECT # _____

Instructions: Check all reasons that apply for failure of the project in the left column and rank the three most important reasons for failure in the right column.

Check (✓) if apply	Reasons for Failure	Rank (1=1st, 2=2nd, 3=3rd)
_____	Unrealistic goals	_____
_____	Bad private sector response	_____
_____	Unanticipated economic costs	_____
_____	Unanticipated social costs	_____
_____	Inequitable distribution of costs and benefits	_____
_____	Inappropriate for the macro context	_____
_____	Inappropriate for local values and structures	_____
_____	Dismal future net benefits	_____
_____	Lack of public participation	_____
_____	Lack of understanding and cooperation among agencies and the public	_____
_____	Poor project design	_____
_____	Poor project implementation	_____
_____	Schedule	_____
_____	Not part of a continuous project	_____
_____	Host country development level	_____
_____	Lack of host country commitment	_____
_____	Host country policies incompatible	_____
_____	Market factors	_____
_____	Lack of coordination	_____
_____	Poor maintenance	_____
_____	Degree of centralization	_____
_____	Inadequate financing	_____
_____	Lack of incentives	_____
_____	Other causes (list)	_____

Scales for Scoring AID Projects

7. Attainment of goals: (a&c) 0=less than 25%, 1=25-50%, 2=50-80%, 3=80+%, 4=exceed goals b) realism of expectations: 0,1,2=greatly, moderately, slightly (or not) underestimate costs or difficulties, 3=overestimate, 4=greatly overestimate
8. Benefits (a-j) 0=none, 1=little, 2=modest, 3=much, 4=very exceptional
 - g) Continuance of Factors of Production 0=Not continuing, 1=serious problems, 2=average, 3=better than average
 - i) Distribution of Benefits to Poor 0=Not benefit poor, 1=below average, 2=average, 3=above average, 4=mainly benefit poor
9. Costs b) Social 0=none, 1 & 2=little, 3 & 4=modest, 5 much
10. Effects on Women 0=very negative, 1=negative, 2=neutral, 3=positive (on balance), 4=very positive
12. Problems Fitting (a&b) 0=very severe, 1=moderate, 2=few, 3=none
13. Future Impacts (a&b) 0=none, 1=little, 2=modest, 3=much, 4=very exceptional
14. Total B/C Rate on scale of 0-10 from very unworthy=0 to very worthy=10 (neutral=5) Take into account all costs, benefits and the long term picture
16. Participation in design & implementation (a&b) 0=none, 1 & 2=little, 3 & 4=modest, 5=much
17. Understanding & Cooperation (a&b) 0=very poor, 1=poor, 2=average, 3=good, 4=exceptionally good
18. AID's Role 1=little, 2=modest, 3=much, 4=almost total
19. Quality of Project Design 0=very bad, 1=poor, 2=average, 3=good, 4=exceptionally good
20. Quality of Project Implementation "
21. Schedule "
22. Problems 0=none, 1=little, 2=moderate, 3=many
23. Other Factors Contributing to Success/Failure
 - a) Part of Continuous Program 0=no, 1=partly, 2=entirely
 - b) Host Country Development 1=low, 2=little, 3=moderate, 4=high
 - c) Host Country Commitment 0=none, 1=little, 2=moderate, 3=much, 4=exceptional
 - d) Host Country Policies: Compatability 0=antithetical, 1=slightly anti, 2=neutral, 3=positive, 4=very positive
 - e) Market Factors "
 - f) Coordination Problems 0=none, 1=little, 2=modest, 3=much
 - g) Maintenance 0=none, 1=poor, 2=fairly good, 3=fully, 4=improve
 - h) Decentralization 0=centralized, 1=slight decentralization, 2=moderate dec. 3=much dec., 4=local self sufficiency
 - i) Adequacy of Financing 1=very inadequate, 2=somewhat inadequate, 3=adequate, 4=more than adequate
 - j) Incentives 0=lacking, 1=small, 2=moderate, 3=large
 - l) Causes Within Project Control 0=no, 1=partly, 2=largely
26. Adequacy of Data Base 1=very inadequate, 2=moderately inadequate, 3=slightly inadequate, 4=adequate, 5=very adequate

APPENDIX B

EXPLANATION OF SCALES USED IN PROJECT SCORING SHEET FOR AID PROJECTS

General Note: The judgment of the project are for the time of the evaluation and not for the end of the project or its future fulfillment except where noted. The key variables in this evaluation questionnaire are in questions 7, 8 and 14. We therefore describe these questions extensively. In order to explain the scoring in question seven it is necessary to distinguish several different but related types of goals.

7. Attainment of Goals. The project is to be evaluated in question seven in terms of its attainment by the time of the evaluation of its production goals. Three levels of goals are defined for the types of AID projects which are reviewed in these reports: (1) factors-of-production goals, (2) production goals, and (3) impact goals. The first level is the creation of factors of production which are: (1) facilities, (2) manpower, (3) technology or information, and (4) organization or institution building. These four factors of production are assessed in 8a in terms of the quantity and quality of the factors created. Together these factors provide a capacity to produce direct benefits which are called production.

The second level of goals is production goals. These evaluate the amount of production which the factors of production produce. This is the level of goals which is assessed in question 7 and in a slightly different way in question 8b. Question 7 compares the amount of production to the amount aimed for in the goals of the project. It evaluates the degree of production goal attainment. Question 8b judges the absolute amount of production and whether it is little or much for a project of that size. For the amount of production to be large both a large amount of the factors of production should have been produced and they should have been heavily used. By production we mean transportation for road projects, agricultural production for irrigation and agricultural research projects, water consumption for water systems projects, electricity consumption for electrification projects, etc.

The third level of goals is impact goals. These evaluate the extent of the secondary impacts (see question 8c) of the production which is assessed in questions 7 and 8b. Production, whether, it is transportation or electricity consumption, has secondary consequences for users or recipients. Some of these may have been intended by the project planners and, therefore, fill project impact goals. Question 8c looks at the extent of these impacts in terms of family income and social benefits.

The three levels of goals can be illustrated with road projects. The first level of goals is factors-of-production goals. The major factors of production created by road projects is facilities, e.g., roads. Most road projects produce little of the other factors-of-production. There is some training of construction workers and other manpower, but usually these benefits of the project are very minor compared to the roads created. Even in some cases road building technology is created or transferred by the project, but usually this technology already exists in the country. The project might also create some additional organizational capacity or institutional development with respect to the building and maintenance of roads, but these developments also tend to be minor compared to facilities. Evaluation of factors-of-productions goals, therefore, focusses on facilities in the case of road projects and is scored accordingly in 8a.

The second level of goals is the production goals and this is the level at which the project should be evaluated in question 7. For roads the production is transportation. One indicator of transportation would be the amount of traffic on the roads and another would be the amount of reduction in transportation costs. In scoring question 7, therefore, one not only considers how many kilometers of roads are constructed but also how heavily they are traveled and how much improvement in transportation is produced.

The third level of goals is the impact goals and this level of goals is often featured by the writers of the evaluation reports. For the sake of consistency, however, we recommend scoring question 7 in terms of production goals and let impacts figure heavily in scoring questions 8c and 14. For roads, impact goals often are economic development or increased agricultural production.

Question 7 has three parts: (a) the coder's judgment of how the evaluation team would score the project in terms of production goals attainment, (b) the realism of the production goal statement (explicit or implicit) for the project, and (c) the coder's evaluation of production goals attainment. The latter can evaluate the goal attainment of the project in terms of more realistic goals. The coder might conclude that the project attained more than 80% of what could be realistically expected of a project of that type. The realism of the production goal statement is largely a matter of realistic cost projections. Note: attainment is judged for the time of the evaluation.

8a. Benefits: Factors of Production. Almost all AID projects produce factors of production which are used in the production of goods and services. The factors of production are facilities, manpower, technology or knowledge, and organizational or institutional improvements. Road projects mainly produce road facilities, irrigation projects produce irrigation facilities, electricification projects produce electrical facilities, agricultural research projects produce agricultural technology, education projects produce educational facilities and manpower, health projects produce health facilities and manpower, etc. These in turn are used to produce "production" such as transportation, agricultural production, electricity, education or curing sickness. (see question 7 for an additional discussion of the four factors of production).

In question 8a projects are scored on an overall measure of the quality and quantity of the factors of production and then on each factor separately. The overall score (Q8a) is an accomplishment measure. Did the project accomplish much or little relative to what one would expect for such a project. Questions 8a, 1-5 change the terms of reference from an accomplishment measure to an indication of project emphasis. Relative to each other did the project produce much facilities or manpower or technology or organization? These questions indicate the distribution of project effort. For example, take a road project which produced roads and did not train anyone nor add to the technology or organizations of the country. Even if it was inefficient and produced very little road for that size

project, it would be scored 4 on variable 9: Facilities, because exceptional (very much above average) effort of the project went into facilities. It would be scored 0 on variables 10, 11 and 12, because very much below average effort of the project was devoted to these factors. On variable 8: Factors of Production, it would be scored 0 or 1, and on variable 13: Emphasized Factor, it would be scored 1.

Sometimes it is hard to separate manpower from technology or organization. Education and training improves the quality of the manpower and contributes to the manpower score. It does not contribute to the technology and information score even though education involves information. Rather, technology and information refer to research results or other types of new discoveries and organization refers mainly to new, relatively permanent organizations or agencies.

- 8 b. Benefits: Production of Goods, Services, or Well-Being. See question 7 for some additional remarks on production. The type of production usually produced by the seven types of projects included in this review are:

- roads produce more and cheaper transportation
- irrigation systems produce increased agricultural production
- potable water systems produce water for consumption
- electrification produces electricity for consumption
- education produces educated children or adults
- health or nutrition projects produce health and nutrition

All of these types of projects usually produce impacts which derive from the production listed above, but these impacts are dealt with in question 8c. For example, some impacts of roads are economic development, increased agricultural production, higher income for farmers, access to health services, etc. Some impacts of potable water systems are improved health, hauling time saved for women and children, increased incomes through crafts created with the saved time, etc. In scoring 8b use the none-to-exceptional scale as an accomplishment scale. Did the project produce little or much increase or improvement in transportation, agricultural production, water or electricity consumption, education or health relative to the size of the project? Production is largely the product of the amount of the factors of production created and the efficiency of their use.

- 8 c. Benefits: Impacts. See question 7 and 8b for discussion of impacts. Increased production usually causes impacts or multiplier effects which we categorize as family income, social, or other. Here social stands for everything which contributes to the quality of life of individuals and families except for family income benefits. Social also includes quality of life gains for the community including income benefits. The national or regional level impacts and individual impacts not covered by income or social are included in the "other" category. It is hard to provide reference points for scoring impacts. For example, if a road increases access to health services but villagers only use these services for emergencies, i.e., infrequently but for critical needs, how much of an impact is this? We would score this impact benefit as a 1 but another coder might score it a 2.

We recommend that several dimensions be considered simultaneously in judging impacts: quantity, intensity or importance, degree of desirability according to the preferences of beneficiaries, linkage to further benefits, and extent of impacts relative to project size and cost. Note that only positive impacts are considered here. Negative impacts are considered in question 9.

- 8 d. Benefits: Productivity. This question compares the production to the factors of production. If little factors of production are produced, but a good level of production is derived from these factors, then the productivity is "high" even though the production is "little." Roughly, production equals factors of production times productivity.
- 8 e. Benefits: Continuance of the Factors of Production. The factors of production normally deteriorate overtime. Facilities require maintenance to continue, trained workers leave their field of training for many reasons, information or technology becomes outdated or is forgotten, and organizations disband or atrophy. In question 8e the coder estimates how well the factors will continue after the project is completed.
- 8 f. Benefits: Net Amount of Benefits to the Poor. If "much" production and beneficial impacts accrue from the project most likely the poor will receive "much" benefits (unless the benefits are highly skewed toward the rich). The comparison of benefits to the poor with benefits to other groups is handled in question 8g. In 8f one simply estimates if the poor do in fact benefit and how much.

Who are the poor? Most projects are in rural areas where the poor would include landless or tenant farmers and owners of small acreage farms. These two groups often comprise more than half of the population of poor areas.

The poor are normally compared to the larger and/or better capitalized farmers, professionals and the established businessmen (non-marginal) in figuring the relative distribution of benefits to the poor. There are three ways that the poor could benefit more than the better off. The first way is for the poor to substantially outnumber the rich as project beneficiaries even though the fewer rich might make larger gains per person. The second way is for the poor and rich to be relatively equally represented among the beneficiaries, but for the poor to benefit more in relative terms. In other words the average poor person gains more than the average rich person. Finally, the third way is when a project is placed in a very poor area. It can be designated as largely benefiting the poor regardless of whether the better off people in that area gain relatively more than the poor in that area. In these cases a score of 3 or 4 means that very poor regions benefited more than wealthier regions.

- 8 g. Benefits: Relative Distribution of Benefits to the Poor. See 8f.
- 8 h. Benefits: Private Sector Development. One goal for AID projects is the development of commercial and business activity because these activities generally have many small direct and indirect influences on further economic activity and these influences can be substantial in the aggregate. There are no clear reference points for idfferentiating between little, modest, and much, except to suggest that the

commercial activity should be compared to the size of the project.

This benefit is subdivided into (1) direct private sector development as domestic businesses are hired to implement aspects of the project and (2) private sector development which arises to take advantage of opportunities created by the completed project, e.g., truck and bus activity along a newly created road.

9. Costs: Economic. Economic costs are not scored on a scale but are reported in dollars and are considered as a reference point when judging the extent of benefits.
- 9 b. Costs: Social. Impact analysis should describe negative social impacts of projects (usually unintended) including displacement, community disruption, out-migration (may also be a benefit) disruption of families, the effects of inflation (not included in economic costs), loss of land and property, increased indebtedness and vulnerability, etc. The coder should check to see that these impacts are in fact viewed negatively by those impacted.
- 9 c. Costs: Environmental. The reports are too uneven in describing environmental impacts for this variable to be scored but it should be described on the questionnaire if possible.
10. Effects on Women. When nothing special is said about women one can assume that general benefits for families such as increased income or potable water will benefit women as well as men. Other general benefits such as increased accessibility may be limited to the men but if so the reports should indicate this rather notable fact.
11. Other Project Consequences is a catch-all category and is not separately scored. It contributes to the total assessment score, however, in question 14.
- 12 a. Sociocultural Feasibility: Problems fitting the macro context. Projects are introduced into already existing social and cultural systems. How well do they fit? 12a scores the fit with the macro context which includes the societal level institutions, government policies, national organizations and cultural values.
Should it change if it is included?
- 12 b. Sociocultural Feasibility: Problems fitting local values and social structures. This question replicates question 12a but at the community or local level. Does it violate local customs? Is it poorly adapted to local conditions and social structures? Perhaps it presumes that local communities can carry out simple maintenance or oversight functions which are beyond their organizational or technical capacity.
- 13 a. & b. Future Impacts. An overall assessment must consider the probable (estimated) future benefits and costs of the project and these considerations should be limited to this question. The answer will depend in part on the continuance of the factors of production (question 8e) and on the type of impacts which it generates (8c).
14. Total Benefit/Cost Assessment. All factors considered in questions 5-13 contribute to the overall benefit/cost assessment. This is not a narrow economic cost benefit analysis, but a comparison of all past, present and future benefits with costs. Benefits and costs include economic, social, and environmental. No valid objective way exists to add up both monetary and non-monetary costs and benefits into a total score. The task is inherently subjective and involves the values of the judge. Procedures do exist for insuring that all costs and benefits are systematically considered but the final judgment must be subjective. We suggest

that the coder reread question 7-13 in order to take as many factors into account as possible.

The rating scale runs from extremely unworthy to extremely worthy and 5 means that it is neither worthy or unworthy on balance. The coder scores it a 5 when he considers it neither a failure nor a success. A zero means that the project did more harm than good while 1, 2, 3 and 4 may indicate that the net effects of the project were positive but that relative to the costs the benefits were too small for the project to be considered successful. On the other hand, scores of 6-10 indicate varying degrees of success. The coder asserts by scores of 6-10 that AID should be glad (perhaps only slightly) to have contributed to that project. Projects scored 0-4 are ones which AID wishes it had not funded, but had used the money for more worthwhile projects.

- 16 a. - c. Participation by beneficiaries (or the public) in design, implementation or maintenance. If a project is reviewed with village chiefs before implementation it would get no more than a 1. If facilities are placed in villages which petition for them the project is scored with a 2 or more. This variable involves both the fact of consultation at the local level, and also the extent to which local inputs are heeded. Finally, it considers whether local participation is elitist or democratic.
- 17 a. & b. Understanding and Communication between involved agencies and between involved agencies and the public. The involved agencies include the donors, the responsible government agencies and the contractors. The public usually includes beneficiaries and local leaders.
18. Quality of Project Design includes more than the virtues of engineering design. It also includes the anticipation of and provision for the other necessary elements of a successful project in the selected setting.
19. Quality of Project Implementation includes more than the performances of the contractor. It also includes the mobilization of the other resources necessary to the success of the project.
- 19 a. Schedule considers problems of delays and bad timing.
- 19 b. Coordination Success. This question might overlap with question 17 but it is possible to have coordination problems even when understandings and cooperation are good. Coordination applies not only to the process of creating the factors of production but also to the management of the facilities or organizations thusly created.
- 19 c. - Incentives and Motivation. Incentives refers to the incentives for principal contributors to the project to carry out their role or part. This includes the administrating agency, the contractor, the beneficiaries if they have a role, the community as a community if it has a role, etc. The question asks how committed are participants to project success or how motivated are beneficiaries to acquire and use the resources, technology or training provided by the project?
20. Maintenance of Facilities. In trial runs the main confusion in scoring maintenance was the proper point in time for the evaluation to be made. One project produced new roads which were in good repair at the time of the evaluation but which were not going to be well maintained in the

future. A single maintenance score would be confusing. Maintenance is scored separately, therefore, for three different points in time: up to the end of the project, since the end of the project and up to the time of the evaluation, and the way the picture shapes up for the future.

21. Adequacy of Financing. If the goals are completely unrealistic they are to be ignored and the adequacy of financing is to be judged in terms of reasonable criteria. If the project expects to build 500 km of roads and runs out of money after 300 km because a higher quality of road was built for valid reasons, then the financing is adequate for the goals as redefined. They traded off quantity for quality. If an adequate amount of roads are built but not maintained, the financing is adequate unless the financing is supposed to also pay for maintenance. The point to remember is whether the failure of the project is due to insufficient funds or other causes.
22. Part of a Continuous Program. At one extreme is a one shot program. At the other extreme is a project which funds what is or becomes a normal function of a permanent agency. In between are many types of projects including a one-time installation of facilities for which maintenance becomes the regular function of a permanent agency or organization.
23. Host Country Development. Use the World Bank Atlas, 1980 for per capita GNP in 1979 in U.S. dollars to indicate Host Country Development.
24. Host Country Commitment involves both word and deed. The project may involve a major goal of a country but not get any actual support. Symbolic commitment counts for something but not very much when the country fails to act in the project's behalf when necessary.
25. Host Country Policies Compatible. The emphasis in this question is on incompatible policies. Even though many policies are neutral or favorable, one policy which seriously impedes the project (e.g., a food pricing policy) would lead to a score of 0 or 1.
26. Market Factors. Sometimes market factors are irrelevant, and therefore, scored 2. Often, however, prices and market conditions help or hinder the project. Prices of supplies or prices for products which are related to the project often have a profound impact on the success of the project.
27. Decentralization. This is a complex variable to judge because various activities have different degrees of centralization. The main point to keep in mind is the degree to which activity is initiated, planned, directed, controlled and executed at the national level or the local level. When the key level is the county, state or regional level scores of 1 and 2 should be used. When project direction is shared fairly evenly between local and another level a score of 3 is probably appropriate.
28. AID's Role. Few project reports bother to spell out AID's role so this question may not be answerable. It inquires about the degree of advising, directing, supervision and monitoring done by AID.
29. Overall External Problems. This question overlaps questions 24-26 but includes all other contextual factors which create problems for the project.

30. Evaluation Team Characteristics. Record the areas of specialization and organizational affiliation of team members. Include other information which is pertinent to an evaluation of the reliability and validity of the team's evaluation of the project.
31. Adequacy of Data Base. Adequacy is judged entirely in terms of how adequate the report was for the coder to complete this questionnaire with reasonable confidence. If items were not addressed or could not be scored with confidence the report was inadequate to some degree.

APPENDIX C

PROJECT SCORING SHEET FOR AID PROJECT
PROJECT DEFINITION

- Variable Number and Score
- 1 _____ 1. Publication Number _____ Publication Date _____
- 2 19 _____ 2. Publication Name and Region _____
Region: 1 = Africa, 2 = Asia, 3 = Latin America,
3 19 _____ 4 = Middle East (Morocco to Iran), 5 = other
- 4 _____ 3. Project Dates (a) Beginning _____
(b) Ending _____
- 4 _____ 4. Project Type: 1 = road, 2 = irrigation, 3 = agricultural
research, 4 = water, 5 = electric, 6 = education,
7 = health/nutrition, 8 = general development, 9 = other

EVALUATION

- 5 _____ 5. Project Goals: _____
- 6 _____ 6. Indicators of Goals: _____
- 7 _____ 7. Attainment of Goals: 0 = <25%, 1 = 25-50%, 2 = 50-80%,
3 = 80%+, 4 = exceed goals
a) Team Evaluation
- 6 _____ b) Realism of Cost Projections: 0-4, from greatly
underestimated to greatly overestimated
- 7 _____ c) Coder's Evaluation
- 8 _____ 8. Benefits:
a) Factors of Production: Scale B, 0-4 = very little to
exceptional, 2 = average
Score factors of production below on Scale B but relative
to each other
- 9 _____ (1) Facilities _____
- 10 _____ (2) Manpower or Human Resources _____
- 11 _____ (3) Technology or Information _____
- 12 _____ (4) Organization or Institutions _____

SCORE

- 13 _____ (5) Emphasized factor 1-4 = facilities, manpower, technology and organization
- 14 _____ b) Production of Goods, Services or Well-being: Scale B, 0-4 = very little to exceptional, 2 = average
- 15 _____ c) Impacts (secondary benefits of production or multiplier effects): Scale A, 0-4 = none to exceptional, 2 = modest
- 16 _____ (1) Family Income Benefits: Scale A, 0-4 = none to exceptional, 2 = modest
- 17 _____ (2) Social Benefits, Scale A, 0-4 = none to exceptional, 2 = average
- (3) Other Secondary Benefits of Production (please list)
- 18 _____ d) Productivity (ratio of production and secondary benefits to the changes in the factors of production) Scale B, 0-4 = very little to exceptional, 2 = average
- 19 _____ e) Continuance of Factors of Production (Facilities, manpower, knowledge, or organization): Most likely prediction is 0 = discontinue, not maintain, 1 = serious reduction, 2 = mild reduction, 3 = continue about as is, 4 = expand
- 20 _____ f) Net Amount of Benefits to the Poor: Scale B, 0-4 = very little to exceptional, 2 = average for projects of this type
- (1) Direct
- (2) Indirect
- (3) Minus costs
- 21 _____ g) Comparison of Benefits to the Poor to Benefits to Middle and Upper Income Groups: Scale B, 0-4 = very little to exceptional, 2 = average (all benefit about equally)
- h) Private Sector Development: Scale A, 0-4 = none to exceptional, 2 = modest
- 22 _____ (1) Directly in the implementation of the project
- 23 _____ (2) As a consequence of completed project

SCORE

- 24 _____ 9. Costs:
a) Economic Costs:
(1) Total Costs in Millions of U.S. Dollars _____
(2) AIDs Contribution _____
(3) Other donor's Contribution _____
25 _____ (4) Beneficiaries' Contribution _____
(5) Budget Breakdown _____
- 26 _____ b) Social Costs: Scale A, 0-4 = none to exceptional,
2 = modest
- c) Environmental Costs
10. Effects on Women
a) Benefits
- b) Costs
- 27 _____ c) Net (Benefits-Costs) Scale C, 0-4 = very negative to
very positive, 2 = neutral
11. Other Project Consequences (secondary)
- 28 _____ 12. Sociocultural Feasibility:
a) Problems Fitting the Macro Context: Scale A, 0-4 = none to
exceptional, 2 = modest
- 29 _____ b) Problems Fitting Local Values and Social Structures:
Scale A, 0-4 = none to exceptional, 2 = modest
- 30 _____ 13. Future Impacts:
a) Benefits: Scale A, 0-4 = none to exceptional, 2 = modest
- 31 _____ b) Costs: Scale A, 0-4 = none to exceptional, 2 = modest
- 32 _____ 14. Total Benefits/Cost Assessment: Scale, 0-10 = very unworthy to
very worthy, 5 = neutral

IMPLEMENTATION

SCORE

- 33 _____ 15. Agency _____
- 34 _____ 16. Participation by Beneficiaries (or the public) in Any Phase of
the Project: Scale A, 0-4 = none to exceptional, 2 = modest
- 35 _____ a) In Design: Scale A _____
- 36 _____ b) In Implementation: Scale A _____
- 37 _____ c) In Maintenance: Scale A _____
- 37 _____ 17. Understanding and Communication
- 38 _____ a) Between Involved Agencies: Scale B, 0-4 = very little to
exceptional, 2 = average _____
- 39 _____ b) Between Involved Agencies and Public: Scale B _____
- 40 _____ 18. Quality of Design of Project: Scale B _____
- 40 _____ 19. Quality of Implementation of Project: General Evaluation:
Scale B _____
- 41 _____ a) Schedule and Timing Success: Scale B _____
- 42 _____ b) Coordination Success: Scale B _____
- 43 _____ c) Skill, Capabilities, and Motivation of Implementations:
Scale B _____
- 44 _____ d) Incentives and Motivation of Beneficiaries All Groups
Essential to Project Success: Scale A, 0-4 = none to
exceptional, 2 = modest
- 45 _____ e) Desirability of the Goods, Services or Benefits of the
Project: Scale A _____
- 46 _____ 20. Maintenance of Facilities: 0 = none, 1 = poor, 2 =fairly good,
3 = much decentralization, 4 = improve facilities,
NA when question 8 A1 is scored 0 or 1
- 47 _____ a) To end of project _____
- 48 _____ b) Since end of project _____
- 49 _____ c) In the Future _____
- 49 _____ 21. Adequacy of Financing: 1 = very inadequate, 2 = somewhat
inadequate, 3 =adequate, 4 = more than adequate

LARGER CONTEXT

SCORE

- 50 _____ 22. Part of Continuous Program: 0 = none, 1 = partly, 2 = entirely
- 51 _____ 23. Host Country Development: use GNP/PC
- 52 _____ 24. Host Country Commitment: Scale A, 0-4 = very negative to very positive, 2 = neutral
- 53 _____ 25. Host Country Policies Compatible: Scale C, 0-4 = very negative to very positive, 2 = neutral
- 54 _____ 26. Market Factors: Scale C
- 54 _____ 27. Decentralization: 0 = centralization, 1 = slight decentralization, 2 = moderate decentralization, 3 much decentralization, 4 = local self sufficiency
- 55 _____ a) Of Relevant Government Structure
- 56 _____ b) Of Project Implementation
- 57 _____ 28. AID's Role in Implementation and Monitoring: Scale B, 0-4 = very little to exceptional, 2 = average
- 58 _____ 29. Overall External Problems: Scale A, 0-4 = none to exceptional, 2 = modest

REPORT CHARACTERISTICS

30. Evaluation Team Characteristics
- 59 _____ 31. Adequacy of Data Base: 0, 1, 2 = very, moderately, slightly inadequate, 3 = adequate, 4 = very adequate
32. Conclusions

COMMENTS

SCALES FOR SCORING AID PROJECTS

Most scales are 5 point scales as follows:

A SCALE	B SCALE	C SCALE
0 = none	very little	very negative
1 = little	below average	negative
2 = <u>modest</u>	<u>average</u>	<u>neutral</u>
3 = much	above average	positive
4 = exceptional	exceptional	very positive

The zero point stands for none or little and the 4 point stands for exceptional. The mid point (2) stands for average, neutral or modest amounts. Almost all evaluation judgments are relative. The case being judged is compared to some standard or to the average for comparable cases. The mid point, therefore, represents the average case of similar size and type. The B scale is used when the coder is likely to have some notion of the values on this dimension for typical projects of similar size and type. The A scale is used for dimensions with less clear comparative references. The C scale is used for dimensions with both positive and negative scores. All three scales go from one extreme to the other extreme with 2 being the mid point between the extremes.

All exceptions to the use of the above 5 point scales are described below:

variables 5 and 7: Degree of goal attainment: 0 = less than 25%; 1 = 20-50%; 2 = 50-80%, 3 = 80-100%, 4 = 100%+ (exceed goals).

variable 6: Realism of Expectations: 0 = greatly underestimated costs, 1 = moderately underest., 2 = properly estimated (or slightly underestimated), 3 = overestimated, 4 = greatly overestimated costs and difficulties.

variable 13: The emphasized factor is 1 = facilities, 2 = manpower, 3 = technology, 4 = organization .

variable 19: Most likely prediction for the continuance of the factors of production: 0 = discontinue, not maintain; 1 = serious reduction, 2 = mild reduction, 3 = continue about as is, 4 = expand.

variables 24 and 25: Economic costs rounded to nearest million U.S. dollar

variable 32: Total Benefit/Cost Assessment: All past, present, and future plus and minus consequences of the project are added up in a subjective overall rating of the project. The scale is 0-10, ranging from 0 = very unworthy to 10 = very worthy and 5 = neutral.

variables 46-48: Maintenance of Facilities: 0 = none, 1 = poor, 2 = fairly good, 3 = full, 4 = improve facilities. If no or insignificant facilities are produced by the project these variables should be scored NA for not applicable.

variable 49: Adequacy of Financing: 1 = very inadequate, 2 = somewhat inadequate, 3 = adequate, 4 = more than adequate.

variable 50: Part of a Continuous Program: 0 = no, 1 = partly, 2 = entirely.

variable 51: Host Country Development: Use GNP per capita in U.S. dollars. Obtain from World Bank Atlas, 1980. All countries are scored for 1979 regardless of when project was completed.

variables 55 and 56: Decentralization: 0 = centralized, 1 = slightly decentralized, 2 = moderate decentralization, 3 = much decentralization, 4 = local self sufficiency.

variable 58: Adequacy of Data Base: 0, 1, 2 = very, moderately, slightly inadequate, 3 = adequate, 4 = very adequate for scoring this questionnaire.