FINAL REPORT

PNAAG 894

THE DEVELOPMENT IMPACT OF PRIVATE VOLUNTARY ORGANIZATIONS

KENYA AND NIGER

Report to the Office of
Private and Voluntary Cooperation,
Agency for International Development
Under Contract AID/otr-C-1383
Work Order No. 39

By

A.H. Barclay, Jr. - Project Director

and

Marilyn W. Hoskins
Wambui K. Njenga
Robert B. Tripp

Development Alternatives, Inc.
1823 Jefferson Place, N.W.
Washington, D.C. 20036

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PREFACE

This report had its genesis in discussions with John Ulinski, of the Office of Private and Voluntary Cooperation (PVC) in the Agency for International Development, concerning the impact of private voluntary organizations (PVOs) on the process of development in the Third World. In spite of years of support and millions of dollars flowing through private voluntary agencies, first in the name of humanitarian assistance (refugee relief), and then development, no comprehensive and comparative assessment had been made of the actual effectiveness of this assistance. The charter for this study called for an identification of the impact of non-governmental development assistance, a specification of the kinds and level of development progress being made, and, as time allowed, an interpretation of why some PVO strategies, priorities and implementation techniques worked better (in the sense of promoting more developmental change) than others. A second objective was to develop a cost-effective methodology for examining this kind of impact among PVOs.

The methodology employed in this study is a refinement of previous research undertaken by DAI for AID. The original 36-country study on the efficacy of development attempts to reach the rural poor, entitled Strategies for Small Farmer Development: An Empirical Study of Rural Development Projects, was completed for the Office of Rural Development in 1975. An ongoing seven-country study of alternative strategies for assisting local organizations as vehicles for development has carried the methodology one step further. This modest study was designed around the rapid survey techniques used by DAI in 15 rural development project designs since 1976.

Dr. A. H. Barclay, Jr., anthropologist, was the Project Director. He wrote the final report and led the research in both countries. In Kenya, where he had seven years of prior experience, he was ably assisted by Dr. Robert Tripp, who has extensive field experience in modernization and change in rural African societies, and who added a focus on applied anthropology and nutrition. This core team was complemented in Kenya by Ms. Judith Gilmore of AID's Office of Private and Voluntary Cooperation, and Mrs. Wambui Njenga, who was invaluable in her knowledge of local conditions, languages, and cultures. Ms. Marilyn Hoskins, an anthropologist with four years of research experience in the Sahel, was the second team member in Niger. Her insights and data collection skills were major assets to the fieldwork there. Donald R. Mickelwait and Elliott R. Morss helped integrate the comparative economic analysis and made major methodological contributions to the study.

This study begins rather than ends the research on the impact of the private voluntary sector on development. The conclusions are based upon 17 cases in two countries. More can be attempted and learned as the sample increases. The team is particularly grateful for the patience and long-suffering assistance provided by the management, staff, and participants in the private voluntary agency projects studied. Whatever the measurement of the impact, there was never question of their dedication to the goals of development.

Donald R. Mickelwait
President
Development Alternatives, Inc.

January 12, 1979

EXECUTIVE SUMMARY

THE DEVELOPMENT IMPACT OF PRIVATE VOLUNTARY ORGANIZATIONS KENYA AND NIGER

INTRODUCTION

This report presents findings from a field study of 17 private voluntary organization (PVO) development projects in Kenya and Niger. The study was commissioned by the Office of Private and Voluntary Cooperation of the Agency for International Development (AID), with two principal objectives:

- To document evidence of developmental impact in PVO-assisted projects and identify the determinants of impact; and
- To test and develop a cost-effective methodology for documenting and explaining such impact within a comparative framework.

These concerns arose from a steady growth in AID's support to PVOs during the past five years, increasing demand inside and outside the Agency for evidence that development assistance is achieving its stated aims. In term f policy, four critical questions need to be addressed:

- Are PVO activities resulting in development benefits?
- Are these benefits accruing primarily to the poorest members of the population in developing countries?

- Will project benefits be sustained when PVO activities are phased out?
- Are PVO activities cost-effective in terms of potential spread and replicability?

Satisfactory answers to these questions require an empirical base of project-level data. This study, with its explicitly comparative thrust, is the first of its kind directed specifically at PVO projects.

The sample is relatively small, and expansion of the number of cases is both desirable and feasible with the methodology employed. Nonetheless, the two countries contain a wide range of projects, and present striking contrasts. They differ in the level of economic and infrastructure development (high in Kenya relative to Niger) and in the degree to which PVO activities are regulated by the government (much more closely in Niger than in Kenya). These contrasts help to illuminate and account for the observed differences in impact.

FRAMEWORK AND FINDINGS

A straightforward conceptual model was used in this exploratory field study. To aid the collection and analysis of data, the concept of developmental impact was broken down into three dimensions:

- Direct benefits generated by the commitment of PVO resources, standardized for differences in projects costs;
- The potential that these benefits will be sustained after the donor's resources are exhausted or withdrawn; and
- The prospects for future development in related activities by the same participant population, based upon the success of the present project.

These variables were categorized as direct benefits, benefit continuation and benefit growth, respectively. When aggregated they would indicate the overall impact achieved by each project. In order to explain variation in impact, the most probable determinants were also specified, and treated as independent variables. These were grouped in two categories, PVO strategy variables and project environment variables.

A deliberate effort was made to select projects that PVO representatives themselves considered successful and sufficiently mature to yield evidence of impact on the intended beneficiaries. The resulting sample includes projects operating in the following activity areas:

- Four self-help rural water projects (all in Kenya);
- Seven rural development projects emphasizing agricultural productivity (three in Kenya and four in Niger);
- Four projects with a training thrust and a focus on income generation (two in Kenya and two in Niger); and
- Two projects using community labor for conservation of the natural and economic resource base (both in Niger).

The findings on impact revealed consistent evidence across the sample that the participating populations were receiving at least some positive benefits in every case. But since the "best" PVO projects had been specifically sought out, this result is not surprising. The degree of differentiation in impact was more revealing: Three levels of impact ("high," "moderate" and "marginal") stood out in sharp relief, and there were no borderline cases. On a scale of 0 to 27, three projects generated high impact, with scores of 21, 21, and 20 respectively. Eight projects recorded moderate impact, with scores between 11 and 15, and six projects recorded marginal impact with scores between 3 and 8

GENERATING IMPACT

Modes of PVO involvement were grouped under four main strate headings. The findings showed that Strategies 1 and 2 were associated with either high or moderate impact:

- Strategy 1: Supplementing a community project based on self-help with funds for materials and/or equipment;
- Strategy 2: Low-profile support to a project that depends on small groups at the local level to carry out activities and make key decisions.

The first strategy was found only in Kenya: it highlights the potential for a PVO to "top off" a project that has reached maturity through a self-help effort. In each case, PVO assistance was

confined to a fairly short time-frame, and intervention did not significantly influence project content. This left the dynamic elements of benefit continuation and benefit growth to be shaped by environmental factors; thus by itself, Strategy 1 did not catalyze a broadly based process of developmental change.

Strategy 2, which was characterized by a high degree of decentralization, revealed a potential for the initiation of development activities among groups previously untouched by conventional services. As with Strategy 1, positive results could not be considered "total solutions." Rather, they represented the introduction of a process of developmental change requiring complementary inputs from both inside and outside the beneficiary community.

A number of elements in the process of project development were common to the more successful cases in the sample:

- Identification of a technology that is immediately applicable under local constraints, with a direct return to those who adopt it;
- An explicit effort to gain the widest possible commitment to the proposed intervention from prospective users before it is introduced;
- A deliberate attempt to draw on local capacities for self-help, whether latent or already firmly established;
- A policy of working through the formal administrative structure and the indigenous system of authority, in order to maximize access to the population of intended beneficiaries; and
- A willingness to modify project content, e.g., dropping those activities that do not take root, as implementation proceeds.

Adherence to all of these steps enchanced the probability that the project would have a sustained impact.

It was found that these elements can be accommodated in the context of both the first two strategies; in Strategy 1, the process operates entirely within the local community: in Strategy 2, PVO personnel themselves execute one or more of the steps. These elements do not constitute a complete formula for project success, but they indicate key steps in the process through which the more successful projects evolved to their current state.

The other two PVO strategies were associated with marginal impact in six cases, and moderate impact in one:

- Strategy 3: Major commitment of outside technical assistance and a high degree of PVO involvement in defining and directing project activities; and
- Strategy 4: Financial and technical support to a project initiated by the host country government.

In the four cases where Strategy 3 was employed, it is likely that, without the impetus of the PVO's presence, the project (and most if not all of its component activities) would not exist. These were high-risk projects, in terms of PVO responsibility for decisionmaking and accountability for results. In operational terms, the high-profile mode of PVO involvement tended to neutralize efforts to gain the commitment of project participants.

Strategy 4, which embodied a relationship that is preferred by the Nigerien Government, places powerful constraints on a PVO's ability to execute the recommended process itself. It was noted that the participatory content of projects rising through the system was relatively low. Although the principle of self-help is formally endorsed as a matter of government policy, it has not been used as a precondition for development assistance. It is difficult to reverse precedents: An attempt to introduce a self-help component into an ongoing project (in which ideas as well as resources originated outside the community) poses very serious problems for PVOs, other donor agencies and host country governments as well.

There were four findings concerning benefit delivery, involvement of the rural poor, sustainability, and replicability, that stood out in terms of policy implications.

- The magnitude of the differences in success among projects was striking; when scores were computed for overall impact, three distinct groupings emerged within the sample, ranging from highly successful to very unsuccessful.
- The concentration of PVO activities on the rural poor was substantial; however, close regulation by the host country government (as required in Niger) limited the choice of target areas and populations.
- There was a wide range of project scores on the question of whether benefits would be sustained when PVO resources were withdrawn.
- Replication of the more successful projects was judged to be an expensive option, particularly in terms of the human resources needed; the limited evidence available from efforts to "scale up" PVO approaches was not encouraging.

These results underscore the fallacy of generalizing indiscriminately about PVO performance. The conclusions reached in this study, which indicate a preference for Strategy 1 or 2 and a recommended process of project development, should be reexamined and refined as a broader comparative data base is accumulated.

METHODOLOGY

A major goal of this study was to identify a methodology for measuring PVO impact that offers a satisfactory compromise between

accuracy and cost. A compromise is required, inasmuch as almost unending amounts could be spent for marginal increments in impact measure accuracy. A determination of whether the impact data of this study are sufficiently accurate for AID needs must necessaril await comments from the PVOs studied, as well as other interested parties. However the information presented on the time and resources involved in this cross-project study might offer some useful parameters for Agency personnel responsible for planning and budgeting future impact studies:

Three parameters of a comparative, cross-project evaluation effort can be specified:

- For field workers already familiar with the methodology, it should be possible to measure impact and its determinants, at the accuracy level of this study, for a sample of ten PVO projects in a single country, at a cost of between $30,000 to $35,000. This assumes a team of two experienced data collectors working for five to six weeks in the field, aided by a local-hire field assistant, with an additional two to three weeks for analysis and write-up.

- For a team new to the methodology used here, an additional commitment of one and one-half to two person-months would probably be needed prior to leaving for the field. This would add between $9,000 and $12,000 to the costs of the study.

- Certain economies of scale can be realized in per project costs by increasing sample size. These economies result from an increased familiarity with what information is needed and techniques to obtain it (for example, the Niger phase of this study required considerably less than the Kenya phase, even though only one fewer project was visited).

The methodology that has been developed here is too expensive to apply universally. Its utility is greater for summative evaluations designed to meet program and policy needs than for formative evaluations aimed at improving the content of individual projects or the programs of specific PVOs. The latter type of evaluation requires a much greater investment of time working with PVO home office and field staff.

For summative evaluations, the usual lack of preexisting impact information places a premium on consistency in the collection and analysis of field data. In the absence of a randomized, experimental research methodology, there are obvious risks of error in attributing causality (i.e., giving credit for impact) to the project itself. In these circumstances one safeguard is to choose as evaluators persons:

- With training in evaluation techniques:
- With experience in collecting field data in developing nations overextended periods of time; and
- Without any likely project bias.

The second safeguard is to equip evaluators with a conceptual framework that focuses not only on impact, but on its possible determinants. With this as a starting point, the data collection effort can be streamlined considerably. Further efficiency is achieved if the list of possible determinants is streamlined to include essential controls and factors that AID and/or the PVOs have some possibility of affecting through policy or program decisions.

In closing, it should be stressed that this study produced clear and definitive results on the impact of PVO projects. Although some certainty was "gambled away" in assessing each projec in a short time-frame, clear-cut differences were found to exist that could be explained at least partially by the conceptual framework and the impact determinants employed.

The trade-offs identified in the use of this methodology to examine PVO impact are likely to arise whenever comparative evaluations are undertaken. The methodology itself has evolved, and will certainly continue to do so if it is put to further use. It is not a final, standardized "product" in its present form.

In conceptual and analytic terms, an "unique" approach is not required for PVO impact evaluation. The approach adopted for this study has the potential to be used for other comparative evaluations of development impact.

CHAPTER ONE

INTRODUCTION

vate and voluntary organization (PVO) development projects in Kenya and Niger. The study focuses on the issue of developmental impact, and attempts to relate findings on the impact of these projects to environmental factors and to the different strategies and approaches adopted by the PVOs concerned. The framework adopted permits explicit comparison of the projects reviewed. In a concluding discussion of major policy issues some implicit comparisons are explored, in order to relate the results to the participation of other agencies in the development process.

The two countries covered in this study contain a wide range of PVO-assisted projects. Equally important, though, are the contrasts between the two countries which help to illuminate the factors influencing impact at the project level. These contrasts are manifested not only in the overall level of economic development Kenya would normally be considered one of the "most" developed and Niger one of the "least" developed among the sub-Saharan African countries -- but also in the policies adopted by the respective governments. In Niger, PVO activities are regulated very closely, whereas in Kenya, considerably greater latitude has

been given for experimentation with approaches and philosophies that may be specific to the PVOs themselves. Thus the differential impact reported here can be placed in the context of situational and environmental factors.

Generalizations about PVO performance in Africa as a whole can be formulated with caution, since the pairing of Kenya and Niger appears to define many of the critical parameters. A broader overview of PVO impact could be developed through extension of the study to other countries on other continents, employing the methodology described in this report.

BACKGROUND TO THE STUDY

During the past decade, and particularly since 1974, the Agency for International Development (AID) has committed increasing amounts of support to PVOs. This growth in funding is based on the broad hypothesis that PVOs make a positive contribution to the process of development among the poor, particularly in the rural areas. AID, which has been tasked by Congress to focus development assistance on the rural poor,[1] recognizes that many organizations within the PVO community have long histories of working with members of this target group, in some instances

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[1] In the legislative record of 1973, this focus was characterized as "New Directions" for AID's assistance programs.

considerably longer than the major bilateral and multilateral donors

In terms of policy, there are two implicit assumptions that underpin the continuation of AID's support to PVOs:

- That the character and/or scale of certain projects may be better suited to involvement by particular PVOs than to direct participation by major donors; and
- That PVO experience contains -- and will continue to generate -- lessons of potential relevance to bilateral programs, particularly those with a "New Directions" thrust.

Although these assumptions have never been systematically tested, they can no longer be taken for granted. Congress, the Office of Management and Budget and the Department of State are putting increasing pressure on AID to come up with solid documentation on the impact of its programs. Demands for concrete evidence that the Agency is achieving its legislated objectives apply both to bilateral programs and to those activities carried out by PVOs with AID funding support.

These information needs focus attention on the following critical questions:

- Are PVO activities resulting in development benefits?
- Are these benefits accruing primarily to the poorest members of the population in developing countries?
- Will project benefits be sustained when PVO activities are phased out?

Are PVO activities cost-effective in terms of potential spread and replicability?

While these questions are phrased in general terms, it is log cal to expect significant differences when empirical evidence is collected from a sample of projects. Variation in impact, in turn, would indicate that policymakers need a basis for determining which PVO approaches produce the greatest impact under what conditions.

An empirical study of this kind must be geared to produc comparative assessments. Thus a compilation of existing eval ation reports (prepared with diverse methods and theoretical viewpoints) would not be sufficient, nor would a collection o case studies highlighting the unique characteristics of particular projects. The task requires standardization of the data points and indicators used in the analysis. The present study, which Development Alternatives, Inc. (DAI), carried out under contract to AID, is the first such comparative effo specifically dealing with PVO impact at the field level.

Alternative Evaluation Approaches

Beyond collecting and analyzing impact data, this study was commissioned to develop "accurate and cost-effective ways of assessing the impact of PVO programs." In a major study of evaluation work in developing nations now being completed, the following conclusion is reached:

> Although there is considerable variation, the modal evaluation appears to be what can be called a "two-week blitz." One or two consultants are sent out to the field for two weeks to evaluate an operating project, using judgmental assessments, qualitative data and a minimal search through administrative records....
>
> The "two-week blitz" predominates because of limited resources: it does not cost very much to "evaluate" an ongoing project in this fashion, the "results" are available quickly, and personnel need not be highly trained in evaluation methodology. However, the "blitz" approach does not yield valid and acceptable evidence of project implementation or impact. Methodologically sound project evaluations require that the actual implementation of a project be documented and that competing (i.e., non-project) explanations for the observed outcomes can be ruled out. The more rigorous the research design, the better the evidence for project implementation and impact, but also the more costly the evaluation in terms of resources and time.[1]

The fact that the usual evaluation approach is methodologically unsound does not mean that sophisticated, rigorous evaluation designs have not or cannot be carried out in developing nations. There is ample documentation of the existence and feasibility of randomized experimental designs in developing countries.[2] The tools are available, and they have been applied. The problem is that such rigorous methodologies are simply too expensive to be applied broadly by AID or any other major donor agency, for either project or program information

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[1] Howard E. Freeman, Peter H. Rossi and Sonia R. Wright, *Doing Evaluations: A Survey of Approaches for Assessing Social Projects*, Paris: OECD, forthcoming.

[2] Robert F. Boruch, "Selected Problems in Third World Country Evaluations", a paper presented at the second annual meeting of the Evaluation Research Society, Washington, D.C. November 2, 1978; Development Alternatives, Inc., *Information for Decisionmaking in Rural Development* (two volumes), report to the Office of Rural Development and Development Administration, AID, May 22, 1978.

needs. The purpose of this study is therefore to find a middle-ground methodology between the unacceptable "two-week blitz" and overly expensive social experimentation techniques. In addition to explanations in the text on the way that the findings were arrived at, Annexes B and C illustrate the procedures used to gather and organize the field data. The policy implications of this middle-ground methodology are discussed further in Chapter Four.

CONDUCT OF THE STUDY

Because the specific concern of this study is with developmental impact, a deliberate effort was made to identify projects that were thought to be successful in producing such impact. When this criterion was applied, the size of the potential sample was reduced significantly. In Niger, several innovative projects[1] were excluded because they were too new to have yielded conclusive results of impact. In Kenya, several small PVO projects that had been generously supported by overseas donors in the early and mid-1970s, but were now substantially reducing or phasing out their activities, were also omitted. In some instances, PVOs themselves indicated a preference that particular projects not be included for one reason or another, and those wishes were respected.

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[1] For example, the Tara Hydro-Agricultural Project being implemented by Africare, and Project "*Tapis Vert*," implemented by Strategies for Responsible Development of Dayton University. See Chapter Four for further elaboration.

The field teams' stated interest was in observing what PVOs "do best." This obviously posed difficult choices. Although opinions were sought within the PVO community itself, both in the U.S. and in the two African countries, about the most appropriate projects for this type of study, the selection probably does not conform to any one person's understanding of what the nine "best" Kenyan projects or the eight "best" Nigerien projects might be.

Preparation for the study began in May 1978, with visits to the home offices of ten U.S.-based PVOs. Information was gathered on the policy focus of each organization, and on planning and evaluation procedures already in use or currently being developed. Simultaneously, advice and recommendations were sought regarding projects that might be visited, with reference to these criteria:

- Maturity and length of operations (if possible, projects with a history of two years or more of implementation);
- PVO perceptions of project performance (projects where discernible evidence of impact would be found); and
- Timeliness of a field visit by the study team (to avoid or at least minimize disruption of ongoing project activities).

These discussions with PVO headquarters staff helped to narrow the range of "candidate" projects. Prior to departing for Kenya, the team decided to concentrate its efforts in two areas of the country: Kitui District of Eastern Province, an area of low population density that has experienced severe droughts in

FIGURE 1

PVO PROJECT SAMPLE FOR KENYA

Short Name	Full Name	PVO Involvement	Location	Function
Bushiangala	Bushiangala Harambee Water Project	NOVIB (Netherlands), CARE/Kenya	Kakamega District, Western Province	Water pumped from stream and piped to school and six communal water points.
Interchurch	Interchurch Seed Project (now renamed Ukambani Integrated Rural Development Project)	OXFAM, Salvation Army, National Christian Council of Kenya, Catholic Secretariat (Kenya)	Eastern Province (two districts; only Kitui District is covered in this study)	Introduction of improved agricultural practices through church groups.
Kandara	Kandara Water Scheme	Misereor, German Hunger Committee, E.Z.E. (W. Germany); NOVIB, Bishops' Lenten Campaign (Netherlands); CAFOD (U.K.); Canadian Hunger Foundation; Australia Freedom from Hunger; American Hunger Foundation; CARE/Kenya	Murang'a District, Central Province	Delivery of piped water to approximately 30,000 rural households by means of gravity flow.
Katothya	Katothya Harambee Water Project	CARE/Kenya	Kitui District, Eastern Province	Year-round supply of water from rock catchment piped to two communal water points.
Katyethoka	Katyethoka Harambee Water Project	CARE/Kenya	Kitui District, Eastern Province	Year-round supply of water from rock catchment piped to three communal water points.
Kawangware	Kawangware Human Development Project	Institute of Cultural Affairs (ICA)	Nairobi	Multi-faceted social and economic project with focus on employment and training.
Kyuso	Kyuso Agricultural Improvement Scheme	Catholic Relief Services, OXFAM	Kitui District, Eastern Province	Promotion of agricultural technology (ox-plow purchase and tractor hire schemes).
Maseno South	Diocese of Maseno South Rural Development Project	E.Z.E. (W. Germany), National Christian Council of Kenya	Nyanza Province (plus Kericho District, Rift Valley Province)	Formation of church and parish level development committees to promote health care and agricultural change.
REES/RALS	Rural Enterprise Extension Service and Rural Market Loan Scheme	Partnership for Productivity (PFP), PACT, UMCOR, National Christian Council of Kenya	Western Province (plus part of Nyanza and Rift Valley Provinces)	Small business advisory service providing management training and experience in the use and repayment of small loans.

recent years; and Western and Nyanza Provinces, which are characterized by high population densities and medium to high agricultural potential.

Final selections were made following the team's arrival in Kenya, and were based on discussions with staff at PVO offices in Nairobi (including indigenous Kenyan organizations) and with Kenya Government officials, as well as preliminary visits to the two areas of concentration. At this time two additional projects were identified: at Kawangware, an urban "village" of 20,000 people on the outskirts of Nairobi; and at Kandara, a prosperous cash crop-producing area in Murang'a District, about 35 miles north of Nairobi. A list of the projects, indicating the name used for each in the body of the text, appears in Figure 1. Summary descriptions of all nine projects are provided in Annex A.

In Niger, the project sample took shape after discussions in Niamey with PVO representatives and Government of Niger officials. The officials of GAP (*Groupement des Aides Privées*), a consortium of PVOs which is responsible for liaison with the government, were especially helpful in arranging contacts and suggesting projects to be visited. The resulting sample (See Figure 2) included projects in five of the country's seven departments.[1]

The total sample of 17 projects can be broken down into the following categories according to the major activity being carried out:

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[1] See Annex A for summary descriptions of the eight projects in Niger.

FIGURE 2

...J PROJECT SAMPLE FOl. ------

Short Name	Full Name	PVO Involvement	Location	Function
CDARMA	Center for Development of Rural Artisanry and Agricultural Machinery	Euro Action-Acord	Dosso Department	Retraining of traditional blacksmiths in techniques of producing and repairing animal traction equipment.
Liboré	Liboré Livestock Fattening Project	Euro Action-Acord	30 km. south of Niamey, in Niamey Department	Promotion of cattle fattening by small farmers as a source of income, while also increasing quantity and improving quality of the meat supply.
Maggia	Maggia Valley Reforestation Project	CARE/Niger	Bouzn *arrondissement*, Tahoua Department	Tree planting to create windbreaks for protection of agricultural land.
Talak	Project for the Development of the Talak Plain	*Routes du Monde* (France), CARITAS/Niger	Arlit *arrondissement*, Agadès Department	Construction of a dam and dike system so as to utilize seasonal floods to create new pastures in an arid area.
Oasis Aïr	Project Oasis Aïr	Church World Service, LWR[1]	Tabelot area, SE of Aïr massif, Agadès Department	Improvement of marketing opportunities and enhancement of agricultural productivity in an area of small-scale irrigated gardening.
SIM/MARADI	Sudan Interior Mission Rural Development Program	Sudan Interior Mission	Guiden Roumji *arrondissement*, Maradi Department	Establishment of woodlots, and promotion of improved agricultural techniques and implements in four rural villages.
Tchin Tabisgine	Project Tchin Tabisgine	EIRENE (West Germany), LWR[1]	35 km. north of Agadès town, in Agadès Department	Introduction of irrigated oasis gardening and reconstitution of livestock herds for population severely affected by drought.
Telemces	Telemces Area Project	Lutheran World Relief	Tchin Tabaraden *arrondissement*, Tahoua Department	Improvement of agricultural productivity, particularly through market gardening; water resource development through shallow wells; and improved road access to an isolated area.

[1] Short-term training in shallow well construction provided by Lutheran World Relief (LWR).

Four self-help rural water projects, all in Kenya (Bushiangala, Kandara, Katothya and Katyethoka);

Seven rural development projects emphasizing agricultural productivity (Interchurch, Maseno South and Kyuso in Kenya; Oasis Aïr, SIM/ Maradi, Tchin Tabisgine and Telemces in Niger);

Four projects with a strong skill formation and training thrust and a focus on income generation (REES/RMLS and Kawangware in Kenya; CDARMA and Liboré in Niger); and

Two projects mobilizing community labor for conservation of the natural and economic base (Maggia and Talak, both in Niger).

Fieldwork in Kenya was conducted between June 12 and July 21, 1978, in Kenya and between November 6 and December 8 in Niger.[1] Data sources for each project are identified in the brief write-ups in Annex A. The bulk of the time in the field was spent in discussions with project participants, either in group sessions or individual interviews. The team developed a structured document for recording the data gathered on each project, but this did not take the form of a standard questionnaire. Instead, each member of the team utilized open-ended questioning techniques, taking written notes on the spot in those situations where it was

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[1] In Kenya, the team was strengthened by the participation of an able field collector and interviewer, Mrs. Wambui Njenga. A trained agriculturalist, Mrs. Njenga took leave from her position as water projects coordinator with the National Council of Women of Kenya to contribute to the study. Mrs. Judith Gilmore of AID's Office of Private and Voluntary Cooperation also accompanied the team for four weeks. The size of the team, as well as the need to refine the methodology, resulted in an average commitment of eight person-days per project. The average time commitment was slightly over three person-days per project in Niger, reflecting greater familiarity with the methodology of data collection and analysis.

appropriate to do so, or writing up notes later the same day from informal conversations that had yielded useful information. At the conclusion of the field visit, the accumulated field notes from all team members were used to assemble basic data for the structured collection document.

Annex C contains a specimen of the data collection document (as amended for Niger, following the experience in Kenya). It has been structured in a way that reflects the analytical framework of the study, as explained in the following section.

ANALYTICAL FRAMEWORK

The focus of the study is on the developmental impact of PVO projects. The use of this term reflects the emphasis that PVOs themselves attach to development as an ongoing, incremental process. The term also reflects a significant departure from the traditional concern of many of the organizations for welfare and humanitarian relief: it requires that the effects of PVO intervention (the introduction of a particular set of resources) be examined in a dynamic perspective.

The decision to focus on developmental impact generated three dimensions (discrete variables) on which standardized data would be collected:

Direct benefits generated by the commitment of PVO resources, standardized for differences in project costs;

The potential that those benefits will be sustained after the donor's resources are exhausted or withdrawn; and

The prospects for future development in related activities by the same participant population, based upon the success of the present project.

These variables have been categorized as benefits, benefit continuation, and benefit growth. It is apparent that the three are analytically distinct, since a given project may record a "high" value for one and a "low" value for one or both of the others. Findings from the two-country sample are reported and discussed in Chapter Two. The first variable is examined both in terms of benefits-in-kind and in terms of their monetized equivalent, while a scoring system based on specific indicators is used to generate results for benefit continuation and benefit growth.

The difficult nature of development work, and the magnitude of the problems being addressed (by both PVOs and other agencies), suggests that high values for all three development impact variables will be the exception rather than the rule, even in a set of projects widely believed to be "successful." This expectation (which was clearly borne out by the findings reported in this study) leads naturally into an analysis of the reasons underlying differential project performance, and to the formulation of an explanatory model. Chapter Three is concerned with developing

this analysis, within the limits of the data obtained in Kenya and Niger.

In its broad outline the model used in this report treats the dimensions of development impact as dependent variables, which are related to (i.e., a function of) independent variables. The latter are classified under two categories -- PVO strategy variables and project environment variables. In other words, the model attempts to explain observed impact as the outcome of interaction between PVO policy (with identifiable components, each having a set of potential values) and the characteristics of a specific project setting (also consisting of discrete components).

Chapter Three distinguishes the main types of project involvement on the part of PVOs, as evidenced in the sample. The argument first examines how these approaches relate to observed differences in the level of developmental impact. It then proceeds to consider the interplay between the approaches adopted and environmental factors, broadly defined. In the latter regard, the extension of the study to a second country (Niger) was especially illuminating, since the sample now reflects situations of greater and lesser autonomy for PVOs in applying their own priorities to specific projects. A much greater degree of coordination with the host country government is required in Niger than Kenya, both at the PVO country headquarters and project levels.

While the field data themselves are of considerable interest, they are summarized in Chapters Two and Three, rather than cited

extensively. Interested readers may wish to study the charts in Annex B, where detailed information on the 17 projects appears, organized under the appropriate categories of the model. Preparation of the charts involved aggregating and transferring the data recorded on the collection document for each project, a specimen of which appears as Annex C.

The analytical power of the model can be tested and further refined, if the sample is expanded through the inclusion of additional projects, ideally in other countries. The classifications employed here can be sharpened -- probably without significantly enlarging their number -- as the empirical base is broadened. This report is explicitly intended to stimulate a critical review that can be pursued further if the study is extended.

Chapter Four examines the principal policy considerations arising from the findings and the analysis of differential impact. The discussion is specifically directed towards identifying those elements in the PVO experience that might be applied to AID's own programming and project development work.

CHAPTER TWO

DEVELOPMENTAL IMPACT

THE CONSTITUENT VARIABLES

As was explained in Chapter One, the concept of developmental impact encompasses three constituent variables: direct benefits, benefit continuation and benefit growth. These are interrelated but analytically distinct categories. In theory, at least, it is possible that a development project would deliver only a low level of immediate benefits to the participating population, yet in so doing significantly enhance the local community's capacity to undertake new projects in related fields of activity. In such a case, the variable benefit growth would presumably show a higher value than the variable direct benefits. Conversely, it might be expected that some projects delivering substantial direct benefits would have low potential for benefit continuation because the level of external resources required for operating costs far exceeded the capacity of participants bo pay those costs.

Identification of these three components grew out of prior DAI experience in assessing the impact of development projects,

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[1] Particularly in a major study of 36 rural development projects in Africa and Latin America. See Elliott R. Morss, John K. Hatch, Donald R. Mickelwait and Charles F. Sweet, *Strategies for Small Farmer Development: An Empirical Study of Rural Development Projects* (two volumes), Boulder, Colo.: Westview Press, 1976, as well as more recent evaluation work under contract to AID.

and out of a dialogue with PVO representatives in home offices and in the field. This dialogue enabled the study team to take account of PVO concepts of achievement, which as articulated reflect sensitivity to all three dimensions of impact. In several instances the concern with sustainability, continuation and benefit growth -- the critical dynamic elements in development -- has been integral to the PVO's policy for a decade or more; more often, though, the concern results from a significant reorientation of policy in recent years. In the latter instances, the policy focus had shifted from a concern with humanitarian relief to generating developmental change that would endure beyond the period of external assistance.

While consensus may be reached fairly easily on the advisability of examining all three dimensions, a much more difficult (and potentially controversial) task is to determine the appropriate indicators or data points for the three impact variables. Considerable time was devoted to this problem, in recognition of the fact that the direct benefits in certain types of projects -- e.g., the rural water supply projects in the Kenya sample, and the environmental restoration projects in Niger -- are extremely difficult to quantify. The intention was at a minimum to standardize the categories of data to be collected, using a small set of potential "proxy" indicators for a given component variable and where feasible, to specify data points applicable to all cases in the sample.

The availability of appropriate data is inevitably a major problem in evaluating project impact. In the team's scope of work, the existence of baseline data was suggested as a useful criterion in selecting projects to be studied. This preference proved difficult to satisfy in practice, however: when generalized statistical data had been collected[1] on an area, they usually did not provide sufficient detail on the characteristics of specific project participant groups; and where data had been assembled within the context of the project itself, they were usually not structured to permit rigorous attribution of change to project interventions.[2]

Because the scale of most projects in this sample is modest, and the number of technical and administrative staff is small, the dearth of applicable and appropriately structured data generated by the projects themselves is hardly surprising. Under these circumstances, the study team was faced with the task of amassing its own data for each project and doing so within a short time frame. Data were obtained from direct physical observations, from the contents of project records and other relevant documentation, and from the answers obtained from open-ended questioning (with both a retrospective and a predictive thrust). These data then had to be transformed into a coherent account of

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[1] An example is the *Marginal Lands Pre-Investment Study Mid-Term Report* (December 1977), prepared by a team of U.S. and Kenyan specialists from eight disciplines, for USAID and the Government of Kenya. The study covered Kitui, Machakos and part of Embu District.

[2] Examples are the data collection systems established for the REES/RMLS small enterprise project in Western Kenya, or the CARE-sponsored survey of water users at several projects, including Katothya. See the bottom row of Charts 7 and 8 in Annex B.

each project in its specific setting. The collection document (see Annex C) was used to assemble the data for this purpose.

The next step was to prepare charts in which the findings from different projects could be compared in relation to each of the three impact variables. For direct benefits, this involved detailing benefits in kind, the critical assumptions used for calculating their monetized equivalents, and the level of participation in services provided by the project. For benefit continuation and benefit growth, the data needed to generate values for each discrete indicator were included in separate rows on the charts.

The remainder of this chapter sets out the results of this exercise for the three impact variables, concluding with a brief discussion of the linkages between them. For those readers interested in examining the methodology of the study, charts indicating the basis for the calculations are presented in Annex B.

DIRECT BENEFITS

The direct benefits attributed to projects in the sample represent the outcome of calculations based on field data, and on assumptions used to standardize those data for purposes of comparison. Given the diversity of the projects being examined and the type of methodology being developed in this report, it is

useful to elaborate further on the nature of the data themselves and the assumptions used in interpreting and standardizing the data.

Figures 3 and 4 present the results computed for direct project benefits, project costs and the relationship between the two, for the Kenya and Niger projects, respectively. The format of the two tables is identical. The methods by which values for each indicator were computed are made explicit in Annex B, Charts 1 and 2. The charts thus serve as reference material for readers interested in analyzing particular projects, or exploring the comparisons in greater depth. In this section of the text, brief explanations will be given regarding the significance of each column in Figures 3 and 4.

Estimating Benefits

The first column in each table refers to benefits "in kind," not all of which are quantifiable. As a result the "monetized benefits" in the fourth column refer to some, but not necessarily all, of the "in kind" benefits listed in the first. At this stage of the argument, it is worth noting that the field investigations revealed some direct benefits being delivered by each of the 17 PVO projects.

The listing of "benefits in kind" is based on the descriptions provided in the top row of the charts in Annex B. The "monetized benefits," on the other hand, are derived from specific sets of critical assumptions, which are stated in the second row

DIRECT BENEFITS: KENYA PROJECTS

	(1) Benefits in Kind[1]	(2) Direct Beneficiaries[1]	(3) Verification Level[2]	(4) Value ($) Benefits/ Participant Per Year[1]	(5) Annual Recurring Cost Per Participant[3]	(6) Project Cost Per Participant to Date[4]	(7) Ratio Net Benefits (4-5) to Cost (6)
Bushiangala	a. More potable water b. Time saving (women) c. Better health	750 households	Moderate	$ 69	$ 4	$ 52	1.25
Kandara	a. More potable water b. Time saving (women) c. Improved agricultural yields/ income d. Better health	30,000 households	Strong	$152	$ 31	$239	0.51
Katothya	a. More potable water b. Time saving (women) c. Better health	400 households	Moderate	$ 23	$ 1	$ 29	0.76
Katyethoka	a. More potable water b. Time saving (women) c. Better health	400 households	Moderate	$ 23	$ 1	$ 31	0.71
Interchurch	a. Higher agricultural yields b. More farmer income c. Drought-resistant crops	1,960 households	Weak	$ 10	$ 3	$ 9	0.78
Naseno South	a. Agricultural inputs b. Agricultural credit for inputs c. Higher yields d. More farmer income e. Cheaper/available medicines	3,000 households	Moderate	$ 16	$ 9	$ 49	0.14
Kyuso	a. Ox-plows/training b. Tractor plowing c. More acreage in production d. Higher yields e. More farmer income	540 households	Strong	$186	$ 24	$ 69	2.35
REES/RMLS	a. Improved management practices b. Higher profitability c. Credit to expand business	370 clients	Weak	$141	$359	$1,243	(-)
Kawangware	a. Adult skill formation b. New employment created c. Greater access to education	240 trainees	Weak	$126	$100	$554	.05

[1] Chart 1 in Annex B provides details for Columns (1), (2) and (4). The benefits in Column (4) are calculated without considering costs borne by the project, but subtracting any charges paid directly by participants for project services.

[2] A judgment on the data available (including direct observations) to establish the linkage between the service provided to participants and the benefits derived.

[3] Costs borne by the project and potentially payable by participants. For details, see Chart 3 in Annex B. The annual costs are divided by the number of beneficiaries in Column (2).

FIGURE 4

DIRECT BENEFITS: NIGER PROJECTS

	(1) Benefits in Kind[1]	(2) Direct Beneficiaries[1]	(3) Verification Level[2]	(4) Value ($) Benefits/ Participant Per Year[1]	(5) Annual Recurring Cost Per Participant[3]	(6) Project Cost Per Participant to Date[4]	(7) Ratio Net Benefits (4-5) to Cost (6)
CDARMA	a. Income for blacksmiths b. Income for cart-owners c. Greater availability of carts for transport	39 households (blacksmiths)	Strong	$1,308	$1,026	$9,033	0.03
Liboré	a. Income from cattle finishing b. Improved crop yields c. Improved transport due to carts and boats	251 households	Strong	$ 114	$ 60	$ 554	0.10
Maggia	a. Improved yields in protected fields b. Long-term conservation of agricultural potential	500 households	Weak	$ 30	$ 0	$ 587	0.05
Talak	a. New pastures created b. Long-term security for local pastoral economy c. Herds reconstituted	120 households	Moderate	$ 200	$ 0	$2,617	0.08
Oasis Air	a. Improved yields and higher incomes on "old" gardens b. Higher incomes from "new" gardens c. Construction of new wells d. Protection of gardens vs. floods	494 households	Moderate	$ 459	$ 101	$ 951	0.38
SIM/Maradi	a. Increased yields b. Expansion of cultivated area c. Increased incomes d. Annual income from woodlots	120 households	Weak	$ 137	$ 25	$ 155	0.72
Tchin Tabisgine	a. Increased income from irrigated gardens b. Shallow concrete wells give permanent water source c. Herds of small stock reconsituted	176 households	Moderate	$ 197	$ 114	$1,114	0.08
Teleeces	a. Increases in marketable outputs from "old" gardens b. Increased income for farmers establishing new gardens c. Accessible water for both farmers and herders	153 households	Moderate	$ 159	$ 79	$ 119	0.67

[1] Chart 2 in Annex B provides details for Columns (1), (2) and (4). The bensfits in Column (4) are calculated without considering costs borne by the project, but subtracting any charges paid directly by participants for project services.

[2] A judgment on the data available (including direct observations) to establish the linkage between the service provided to participants and the benefits derived.

[3] Costs borne by the project and potentially payable by participants. For details, see Chart 4 in Annex B. The annual costs are divided by the number of beneficiaries in Column (2).

[4] Total external costs (excluding contributions by participants themselves). See writeups in Annex A.

of the same charts. Where the verification of linkages between project services and intended benefits was rated "strong" or "moderate" these assumptions tended to be conservative: for example, the yield improvements estimated for Kyuso and Maseno South, and the amount of time saved per household in all four water projects. On the other hand, where the service-to-benefit linkage was judged harder to verify, the assumptions gave the projects concerned (e.g., Interchurch, REES/RMLS and Kawangware) considerable benefit of the doubt.

Participation and Use of Project Services

Column (2) in each figure shows the number of direct beneficiaries for each project; details are provided in the annex charts. The level of precision in data collection varied widely with this indicator. Recordkeeping within the projects, especially in the Kenya subsample, was not uniform in quantity or in quality. At Katothya, for example, it was recognized that the number of persons (almost all of them women) collecting water from the project site would fluctuate on a seasonal basis. Maps, census records, physical observations (including counts of those collecting water during certain portions of the day during field visits) and interview responses were drawn on to estimate the level of use. It was finally decided that, for comparative purposes, the number of beneficiaries for the water projects should assume completion of the project.[1]

[1] For Kandara, however, it was estimated that only 20,000 households would pay the installation fee for individual standpipes, with the remaining 10,000 continuing to use communal standpipes.

In several other instances the level of use or participation was comparatively easy to ascertain, because records were kept of specific transactions (e.g., installments for ox-plows purchased at Kyuso, REES client files). ICA staff at Kawangware, which was the most ambitious of all the projects in certain respects, could only furnish estimates of the numbers of participants in individual programs, and these have been aggregated for presentation here.

For purposes of comparability the household was taken as the standard unit: for the Kenya projects, which were mainly situated in sedentary farming areas, it was assumed that the average household contained six persons. For several of the Niger projects, household numbers were already known, and in others an average size of eight was assumed. These assumptions reflect a deliberate effort to simplify contextual data so that meaningful contrasts between projects would stand out in sharp relief.

Indirect beneficiaries were not included in the calculations, although in a few cases there was some basis for attributing secondary benefits to the project itself. This was true of CDARMA, where the ox- and donkey-carts produced in project workshops generate considerable income for the farmers who obtain them. Yet distribution and pricing of the carts is handled by the Nigerien cooperative union (UNCC), and not by CDARMA, so that the magnitude of such secondary benefits is not determined by the project. In order to be consistent, the results refer only

to the benefits directly traceable to each project, and decisions made as part of its activities.

Verification

Having estimated the number of direct participants for each project in the sample, the next step in the analysis was to verify the linkage between project services and imputed benefits. Column (3) in the figures shows that there is a wide spread in the degree of verification obtained. At Kyuso, for example, farmers participating in the tractor hire scheme and/or the ox-plow loan-purchase scheme confirmed that they had been able to cultivate larger acreages and had experienced higher yields per acre, and were specific in citing amounts. In this case the service-to-benefit linkage was comparatively simple to verify. At Kandara, the linkage was directly visible in observed uses of water for dairy animals and domestic consumption

The same was not true for all of the projects, however, for a variety of reasons, including:

- Difficulty in translating total membership of groups into reliable adoption rates for recommended techniques whose beneficial effects are demonstrable (a problem that arose with Interchurch);
- Disparity between the participation rate (numbers of people enrolled in training programs) at Kawangware, and numbers actually placed in productive employment; and
- Lack of a basis for correlating an observed benefit (increased profitability in a sample of 49 REES clients' businesses, which may or

may not differentiate them from non-clients] with responsiveness to project consultants' advisory service.

In the first instance the weak link exists in the estimation of services actually used; the Interchurch project contrasts with Maseno South (which also works through church-related groups), in that the small loan scheme of the latter provides a measurable indicator that project services are actually being used. In the second instance problems arose in verifying that training leads to income-generating employment (suggesting that it may be beyond the project's capacity to influence the labor market in the wider community).

In the REES case, as indicated previously, the problem is one of attribution: a significantly stronger case could be made, while sidestepping the issue of non-clients' relative gains in profitability, if client gains were positively correlated with acceptance of REES-recommended advice and managerial techniques. In fact this correlation could be generated without an additional investment of time if data collection guidelines for REES consultants were revised to monitor trends in profitability alongside data on client responses to advice.

Verification of the service-to-benefit linkages for some projects in the Niger subsample posed similar problems. For SIM/Maradi, the process involved the same uncertainties as were encountered with Interchurch, since no records were available of the areas under cultivation or the yields obtained by participat-

ing small farmers. At Liboré and CDARMA, on the other hand, verification was more straightforward due to the relative predictability of the production and pricing systems that had been established.

Benefits in Relation to Project Costs

The monetized benefits shown in Column (4) of the figures reflect the magnitude of benefits directly realized by project participants, minus any compulsory charges that they incur directl Costs or charges that are routinely paid "out-of-pocket" have been deducted: e.g., the amount paid (in cash) by Kyuso farmers to hire the project tractor. But costs borne by the project and potentially payable by participants (e.g., the additional subsidy needed to cover the full running costs and depreciation of the Kyuso tractor) have been omitted, and are shown separately in Column (5).

The figures in Column (4) show weighted averages in those cases where direct beneficiaries fell into more than one category. For SIM/Maradi, the figure of $137 represents such an average, since 120 households were benefiting from the woodlot component of the project ($40/household/year) and only 50 were participating in the agricultural activities ($233/household/year). At Oasis Aïr and Telemces, weighted averages were used to combine participants with gardens established prior to the project, and those who had opened gardens since the initiation of the project.

The annual recurring cost estimated for each project is shown in Column (5), as explained above. In those cases where a revolving fund had been established by the PVO or another donor, the fund was considered as a "sunk cost" within the project and was excluded from the recurring cost. This distinction applied to Maseno South, Kyuso, Liboré and CDARMA, among others. Significantly, the four projects with a skill formation/training thrust (Kawangware, REES/RMLS, Liboré and CDRAMA) ranked high in their annual requirements per participant. In contrast, three of the water projects in Kenya (Bushiangala, Katothya and Katyethoka) and the two environmental restoration projects in Niger (Maggia and Talak) were designed to be virtually maintenance-free, as the figures indicate.

Column (6) in each figure shows the total project cost to date (from external sources only) per participant. For the four self-help water projects in Kenya, contributions of cash and labor made on a *Harambee*[1] basis have been excluded. The basic purpose of this indicator is to capture the magnitude of the resources that had to be mobilized from outside the benefiting community, in order to bring the delivery of benefits to the present level.[2] Thus host country government contributions have been included, as well as those made by PVOs and other donor organizations such as AID.

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[1] *Harambee* is a Kiswahili word, coined by the late President Jomo Kenyatta of Kenya, signifying "let us all pull together." It has become synonymous with the concept of self-help in Kenyan rural development.

[2] For all six light infrastructure projects, the cost of the completed project has been used to compute this indicator. This is consistent with the decision to include the number of beneficiaries at the time of project completion in calculating benefits.

The last column shows the ratio computed when the net benefit per participant (direct benefits minus all recurring costs) was divided by the total project cost. Due to the nature of the data, this indicator is not necessarily precise to the second decimal point, but it shows very clearly the relative capacities of projects in the sample to return their costs. The inverse of this ratio would indicate the number of years required for the project to deliver sufficient net benefits to repay the investment of external resources. The variation is extreme, with Kyuso requiring less than half a year and REES/RMLS never repaying the investment. If a sensitivity analysis is performed to allow for the possibility of seriously underestimating benefits in the weaker cases, their relative positions with respect to this indicator do not change significantly.[1]

BENEFIT CONTINUATION

The findings for benefit continuation are detailed in Figure 5. The indicators across the top attempt to capture evidence, where it exists, of the potential for sustaining the benefits introduced by each project. These specific indicators, which deal with resource commitment and the organizational process

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[1] For example, assume that REES assistance accounts for 50 percent (rather than 25 percent, as estimated in Chart 3, Annex B) of the increase in client profitability. The monetized direct benefit would then be $281, the net benefit would be -$78, resulting in a negative ratio. Even at 75 percent attribution the ratio would be only .05.

FIGURE 5

ENEFIT CONTINUATION

		(1)	(2)		(3)	(4)
	PVO Project	Local Organizations and Project Decisionmaking = No organization exists = Participants newly organized, questionable viability 2 = Organization has assumed some decisionmaking functions 3 = Organization fully responsible for project services	Participants' Contributions to Project (2a) Projects Requiring "Service"/Budget Support 0 = Service provided free 1 = Services formally subsidized by project 2 = Participant contributions partially cover costs 3 = Participant contributions cover all costs	(2b) "Infrastructure" Projects 0 = No contribution/paid labor only 1 = Labor contributed on food-for-work basis 2 = Cash/labor contributed on one or more occasions 3 = Cash/labor contributed on ongoing basis	Adequacy of Project-Related Mechanisms for Mobilizing Resources 0 = External subsidy required for continuation 1 = Local resources adequate but no mechanisms to mobilize them 2 = Sufficient resources available locally; mechanism exists, but unproven 3 = Resources can be tapped by existing mechanisms	Total Score
KENYA	Bushiangala	3	-	2	3	8
	Kandara	3	-	3	2	8
	Katothya	1	-	2	1	4
	Katyethoka	1	-	2	1	4
	Interchurch	2	0	-	1	3
	Maseno	2	1	-	2	5
	Kyuso	2	2	-	2	6
	REES/RMLS	2	0	-	0	2
	Kawangware	1	1	-	0	2
NIGER	CDARMA	1	1	-	1	3
	Liboré	2	2	-	2	6
	Maggia	0	-	1	1	2
	Talak	0	-	0	1	1
	Oasis Aïr	2	1	-	2	5
	SIM/Maradi	1	1	-	1	3
	Tchin Tabisgine	1	1	-	1	3
	Telemces	1	1	-	2	4

within the target community, reflect a basic concern in this study with the long-term dynamics of development assistance and with the time-phasing of external donor involvement. Charts 3 and 4 in Annex B provide reference material to show the basis for calculating the components of benefit continuation.

The judgments arrived at are essentially predictive, in that they attempt to gauge the probability that the benefits provided to participants will still be attainable when external resources -- specifically, those supplied by the PVO -- are exhausted or withdrawn. Since the collection of data took place at a single point in time, these forecasts are stated with a degree of caution. In particular, the assessments regarding the capacity of local-level leadership result from the combined insights of the field team. It is implicitly assumed that the balance of factors in each local situation is stable, since a full understanding of the socio-political dynamics in each community could not be acquired in the time available.

This said, the interpretation of the data attempts to come to grips with the complex issue of "participation," by giving it operational content. The underlying hypothesis is that projects with a strong participatory content stand the best chance of sustaining their impact over at least the medium term, i.e., beyond the duration of donor support. This proposition is central to the rhetoric and philosophical orientation of almost all PVOs active in the field of development, but it is usually treated in

abstract rather than concrete terms, so that comparisons between projects are difficult to make. The indicators used in Figure 5 deliberately narrow the definition of the term to facilitate comparisons.

Local Org cisionmaking

The first indicator deals with the evidence of a capability within the participant group to assume major responsibility for managing the activities associated with the project. The field team's operative assumption in arriving at each assessment was that the existence of a "project committee" per se was less instructive than the range and complexity of functions undertaken and the frequency of interaction between project participants. Similarly, in assessing the quality of local-level leadership, consideration was given to the roles of key individuals in the interface with external agents (both PVO and government), and the relationship between local leadership within the project and the patterns of authority and influence in the surrounding community. (Relevant qualitative data are summarized in Charts 3 and 4 in Annex B.)

The range in scores from 0 to 3 for this indicator reflects the disparity between projects in which no means had been established within the participant group to handle decisionmaking related to the project, and others in which some greater degree of responsibility had been assumed by a local-level organization. In the latter instances the data helped to differentiate projects

where the evidence of sustainted local-level management was strong or weak.

Resource Commitment

The main concern of this second indicator is with the level and amount of resources which participants have committed to proj ect activities. Close examination of the projects in the sample highlighted the differences between two types of projects whose resource demands on beneficiaries are essentially different:

- Projects in which provision of services depends on a budget requiring annual expenditure for salaries, materials, inputs, etc.; and
- Projects consisting mainly of light infrastructure or public works, in which the main costs must be met during the construction phase.

In Figure 5, the scores for the second indicator are shown in separate columns, (a) for the first category, and (b) for the second.

Projects with Annual Budgets

It is apparent from the figure that none of the projects in this category is presently "paying for itself," i.e., raising enough funds from participants to cover all operating costs. Kyuso (Kenya) and Liboré (Niger) had advanced furthest towards this status, and in both projects financial self-sufficiency is an explicit goal of the staff currently in control of management.

Several projects in Niger in which a formal subsidy existed may be taken over by the host country government: the possibilities appear strongest at Oasis Aïr and Telemces, since Nigerien technicians are already fully in charge of implementation, with PVO representatives maintaining a relatively low-profile status. Thus the burden of paying for all project-supplied services may not fall on the participant group, although marketing activities are likely to depend more on cost-sharing by producers than is presently true.

In the case of the REES/RMLS project, the decision to levy a nominal fee ($6.45 per year) on clients receiving consultants' services had not been implemented at the time of the field visit. In any event, the requested client contribution represents only a tiny fraction of the annual cost per client.

Light Infrastructure Projects

Within this category, the four Kenyan water projects based on *Harambee* contributions of costs, labor and materials from the beneficiary community contrast rather sharply with the two examples from Niger, Maggia and Talak. The provision of PVO support to the Kenyan *Harambee* projects depended on firm evidence of local resource commitment: the PVO resources would presumably have been allocated to other, more "deserving" projects if community donations to the projects had not occurred. At Maggia, on the other hand, food-for-work rations have been distributed each year by CARE to all male villagers who participate in tree planting.

It is open to question -- and villagers did not agree on this subject during group interviews - whether sufficient labor would have been available if requested on a purely voluntary basis.

At Talak, the prospects for enlisting voluntary contributions were complicated by several factors. In the especially severe post-drought circumstances, most households lacked any means of subsistence and needed wages from manual labor to rebuild their herds; and the radical nature of the transformation proposed through *Kori* flood control[1] was not at all well understood by the local population. For these reasons it proved impracticable to insist on voluntary labor. The result (very clearly understood by the project director) is that tangible proof of local commitment to the project is lacking.

Adequacy of Mechanisms for Mobilizing Resources

The scoring system for this indicator is self-explanatory, with the values representing different levels of certainty. The main question concerns the demonstrated capacity for resource mobilization relative to the potential demands posed by the project. Thus projects with fairly high resource demands may score either high (e.g., Bushiangala, whose water committee has already begun collecting money from users) or low (e.g., REES/RMLS, where there is scant possibility that client businessmen would ever agree or be able to pay all costs).

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[1] A *Kori* is a seasonal river, often located at the base of mountains or hills, which carries large volumes of water during and after major rainstorms, but is dry for the rest of the year.

Conversely, low-demand projects such as Maggia and Talak have been designed to be virtually maintenance-free. Yet although no more than modest inputs of manual labor would be required on an occasional basis, there is no certainty that these could be mobilized without some external stimulus.

BENEFIT GROWTH

The model of development adopted in this study demands that one look beyond the immediate context of project activities. The discussion of benefit continuation focused on parameters used to assess the probability that direct benefits would be maintained after the nominal lifetime of the project. This section reports findings on benefit growth potential, that is, the likelihood that project outputs may lead to a diversification of development benefits that are not specifically within the original scope of the project. The observations were limited to the participant group involved with the project itself, thereby excluding possible effects in adjoining areas.

As in the previous section, a provisional scoring system was developed in order to aggregate the results from three indicators of benefit growth. The indicators used to measure benefit growth are summarized in Figure 6, with additional reference material supplied in Charts 5 and 6 in Annex B.

FIGURE 6

BENEFIT GROWI..

	PVO Project	(1) Adoption of Practices Recommended by Project 0 = None recommended 1 = Less than one-third have adopted 2 = Between one-third and two-thirds have adopted 3 = More than two-thirds have adopted	(2) Individual Farm or Household Level Modernizing Improvements[1] 0 = No investment beyond project 1 = Labor only 2 = Minor cash investment 3 = Major cash investment	(3) New Activities Beyond Project Undertaken at Community Level 0 = No activities observed 1 = Community mobilized on temporary basis 2 = Community leaders support ongoing activity 3 = Formal organization overseas ongoing activity	(4) Total Score
KENYA	Bushiangala	0	1	3	4
	Kandara	0	3	3	6
	Katothya	0	0	1	1
	Katyethoka	0	0	0	0
	Interchurch	1	0	2	3
	Maseno	1	1	2	4
	Kyuso	2	2	2	6
	REES/RMLS	2	3	1	6
	Kawangware	1	0	1	2
NIGER	CDARMA	3	1	0	4
	Liboré	2	2	1	5
	Maggia	0	1	0	1
	Talak	0	1	0	1
	Oasis Aïr	2	1	1	4
	SIM/Maradi	2	1	0	3
	Tchin Tabisgine	2	1	0	3
	Telemces	2	1	1	4

[1] This indicator is concerned only with the type of improvement made and the level of investment. It does not attempt to score the proportion of participants who are currently making the improvements, but in all cases except REES/RMLS it would be less than 25 percent.

Recommended Practices and Adoption Rates

Benefit growth may be realized in a number of different ways. Some PVO-supported projects consciously attempt to ensure such growth by providing a training function as part of the project design. In such cases it is assumed that participants will be able to use their training not only to utilize actual project inputs, but also to seek out and take advantage of new development opportunities.

Within the present sample, 11 projects had significant training components, while in six little or no resources were devoted to training. For example, the Interchurch and REES/RMLS projects (Kenya) have been carried out primarily as educational ventures. Although in the Interchurch Project there is a small material input of seeds and tools, the major effort has been the establishment of demonstration plots where farmers can see and test new techniques that they can apply to their own farms. The integration of such recommendations into local farming practices would assure that they would continue beyond the lifetime of the project, and the experimental nature of the demonstration process encourages farmers to try out and assess other techniques that might be introduced in the future. In a similar fashion the REES effort attempts to teach businesspersons a set of techniques that they can utilize on their own, eventually without the aid of a REES consultant. The other component, RMLS, gives them the opportunity to take advantage of small loans and develop an experience and a record that could be utilized in applying for future loans from conventional sources.

None of the six "infrastructure" projects in the sample, on the other hand, has incorporated a specific training function. In the four Kenyan water projects, the provision of a new source of water would seem to offer an excellent opportunity for promoting improved health practices, but no such effort has been formally undertaken. Therefore any changes in health-related behavior occurring at the household level would not be directly attributable to the projects concerned. Similarly, the Maggia and Talak projects in Niger have not sought to promote specific practices related to reforestation or pasture maintenance, respectively.

Providing an educational component within a project does not, of course, necessarily contribute to future benefit growth; the recommended practices must be adopted by project participants. The first column in Figure 6 presents results for this indicator, with scores ranging from 0 to 3. There is a considerable range, both in the extent to which practices have been adopted, and in the efforts made by the various projects to measure the rate of adoption

At one extreme, in the case of REES, quarterly reports by consultants detail the number of improvements made by their clients. Consultants have a list of 40 recommended improvements such as keeping a general ledger or establishing an inventory system, and clients' progress is assessed in large part by their adoption of these recommendations. Historically, fewer than half of the busi-

nessmen who enroll in REES have remained as clients for more than a few months. Among those who do remain -- defined here as the true project beneficiaries, since "dropouts" cannot be assumed to have absorbed and applied consultants' advice[1] -- the records show that the average client adopts about 15 of the 40 practices recommended by the consultant.

In the Interchurch Project, most of the lone staff member's time is spent in examining demonstration plots rather than visiting the farms of individual participants, so it is difficult to know the extent to which recommended practices have been taken up by participants. The Kawangware project also puts heavy emphasis on training, but there is considerable question about whether much of the training that is offered can be utilized beyond project activities. Training for adults takes place in the context of project "industries," and it is not clear in many cases that these industries would be viable without project support and subsidy.

Use of the first indicator of benefit growth was somewhat easier with most of the Niger projects, primarily because much smaller populations tended to be involved. Thus at Telemces and Tchin Tabisgine, for example, it was possible to relate the number of gardens and shallow wells being established to the number of households. In the case of CDARMA, the number of blacksmiths whose skills were upgraded was only 39, and the creation of a remunerative production system for animal traction equipment has provided

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[1] A REES report, prepared in 1978, explained that most of the ex-clients had either lost interest in the project or had been unable to keep basic records on their businesses. Significantly, clients identified by the project staff as particularly successful were all still receiving consultant assistance.

very strong incentives for blacksmiths to apply those skills on an ongoing basis.

Individual Farm or Household Improvements

Another way of assessing benefit growth is to ask what improvements or investments individuals have made in their own farms, households or enterprises since the beginning of the project. The second column in Figure 6 shows results for this indicator. Methodologically, it is often difficult to pinpoint explicit changes in behavior that are directly attributable to the project, but some clear examples appear within this sample. One such case is Kandara, where the availability of water has led to several changes that will likely contribute to benefit growth. Because water is now piped to individual households, the supply is sufficient to support a grade dairy cow, and many households have already invested in these animals. Beyond this, water storage tanks are beginning to appear, and these will be used for such things as irrigating vegetable gardens. In the case of REES, data gathered on a sample of 49 clients indicated that 59 percent of profits had been reinvested in the small enterprises concerned, a practice specifically recommended within the project itself, but with a potential for extra growth.

At Kyuso, farmers participating in the plowing scheme were able to increase the size of their fields, and were hiring labor to help with the extra weeding. At Bushiangala and Maseno, some project participants had committed labor to household or farm

improvements as well, although no significant cash investments of this kind were observed.

Among the projects in the Niger subsample, only at Liboré did individual resource commitment beyond the project rate a score of 2 It should be noted that for the agricultural projects in this subsample, there were comparatively few options for expanding the scale of production (sometimes due to the scarcity of garden land), or for acquiring new equipment, and no significant incentives for such investments as construction of improved houses.

New Activities at the Community Level

Beyond individual household investments, a project may serve as a catalyst for developing new organizations or strengthening existing ones so that they can perform functions beyond those which constitute the specific project goals. The scoring system used in the third column reflects the weight given to activities which appear to be ongoing and to have a strong organizational base in the community.

In some instances the expansion of community efforts may be planned: for example, at Kyuso, the cooperative formed initially to regulate tractor usage has begun to assume other functions, as originally envisioned by the Catholic missionary who initiated the project.

More often, however, this dimension of benefit growth appears to be relatively spontaneous, as at Katothya, where the increased

water supply allowed the local school committee to plan for the construction of a new brick primary school. At Bushiangala and Kandara the water projects have each led to the development of several other organizations. In the former instance the success of the water project has encouraged the "Action Group," the informal association of residents who originally conceived the idea of pumping water to the secondary school, to initiate several other major efforts. These include the building of a clinic (which is now operating), the establishment of a cooperative society (which is selling farm inputs and other items), and the construction of a village polytechnic.

The findings from the Niger subsample show comparatively lower scores for this third indicator: only three projects had stimulated new activities, and all appeared to be of a temporary nature. Here the broad contrasts between the two countries -- specifically, the absence of a counterpart in Niger to the *Harambee* phenomenon of self-help in Kenya -- place the differences in perspective.

SUMMARY AND SYNTHESIS

Figure 7 summarizes the developmental impact of the 17 projects in the sample. The first and second columns show the monetized direct benefits of each project and the level of verification obtained. Column (3) presents the benefit-cost ratios as computed in Figures 3 and 4, and this indicator forms the basis for the

rank order in Figure 7. Thus Kyuso ranks highest at 2.35, and REES/RMLS lowest with a negative ratio. As explained earlier, the main purpose of this calculation was to capture the degree of variation within the sample. The spread from top to bottom is relatively vast: sensitivity analysis on those cases where benefits might have been underestimated did not move the lower-ranking projects significantly higher.

It is important to note that high benefit/cost ratios were not consistently correlated with a high level of monetized direct benefits. Indeed, the highest amount per participant ($1,308 at CDARMA) was recorded in the second lowest instance of cost-effectiveness; and none of the eight highest-ranking projects generated over $200 in monetized benefits.

Interesting questions arise when the dependent variables are examined side by side, as in Figure 7. The projects ranking high in terms of direct benefit/cost did not necessarily have high scores for benefit continuation and benefit growth. For Interchurch, Katothya, SIM/Maradi and Katyethoka, the results indicate only low to moderate potential that the benefits delivered will be sustained and/or grow after the termination of the project. Conversely, Kandara and Liboré showed better results for the second and third dependent variables than for the first.

In order to develop meaningful overall categories of relative impact, the results for direct benefits/costs, benefit continuation and benefit growth have been aggregated in Figure 7. To accomplish

FIGURE 7

DEVELOPMENTAL IMPACT SUMMARY CHART

Project [(K) = Kenya, (N) = Niger]	(1) Direct Monetized Benefits[1]	(2) Verification Level[1]	(3) Benefit to Cost Ratio[1]	(4) Benefit/ Cost Score[2]	(5) Benefit Continuation Score[3]	(6) Benefit Growth Score[4]	(7) Overall Impact Score[5]
Kyuso (K)	$ 186	Strong	2.35	9	6	6	21 (High)
Bushiangala (K)	$ 69	Moderate	1.25	9	8	4	21 (High)
Interchurch (K)	$ 10	Weak	0.78	8	3	3	14 (Moderate)
Katothya (K)	$ 23	Moderate	0.76	8	4	1	13 (Moderate)
SIM/Maradi (N)	$ 137	Weak	0.72	8	3	3	14 (Moderate)
Katyethoka (K)	$ 23	Moderate	0.71	8	4	0	12 (Moderate)
Telemces (N)	$ 159	Moderate	0.67	7	4	4	15 (Moderate)
Kandara (K)	$ 152	Strong	0.51	6	8	6	20 (High)
Oasis AÏr (N)	$ 459	Moderate	0.38	4	5	4	13 (Moderate)
Maseno (K)	$ 16	Moderate	0.14	2	5	4	11 (Moderate)
Liboré (N)	$ 114	Strong	0.10	1	6	5	12 (Moderate)
Talak (N)	$ 200	Moderate	0.08	1	1	1	3 (Marginal)
Tchin Tabisgine (N)	$ 197	Moderate	0.08	1	3	3	7 (Marginal)
Maggia (N)	$ 30	Weak	0.05	1	2	1	4 (Marginal)
Kawangware (K)	$ 126	Weak	0.05	1	2	2	5 (Marginal)
CDARMA (N)	$1,308	Strong	0.03	1	3	4	8 (Marginal)
REES/RMLS (K)	$ 141	Weak	(-)	0	2	6	8 (Marginal)

[1] Refer to Figures 3 and 4 and the accompanying text.

[2] Minimum score = 0, maximum score = 9. A scale is used with one point awarded for each 10 decimal points over 0: thus 0.05 = 1, 0.27 = 3, 0.51 = 6, etc. All projects scoring over 0.80 would receive a score of 9.

[3] Refer to Figure 5.

[4] Refer to Figure 6.

[5] The sum of scores from Columns (4), (5) and (6) in this table.

this, the scoring system devised for the first variable ratio parallels the 0 to 9 systems used for benefit continuation and benefit growth. Thus the theoretical maximum score for overall impact would be 27, and the minimum would be 0. The score assigned for cost-effectiveness is shown in column (4). The figures in columns (4), (5) and (6) have then been summed to produce an overall score in column (7).

The overall scores fall out into three distinct groups:

- Projects with high impact, scoring over 18 (Kyuso, Bushiangala and Kandara, all in Kenya);
- Projects with moderate impact, scoring between 10 and 18 (Telemces, SIM/Maradi, Oasis Air and Liboré in Niger; and Interchurch, Katothya, Katyethoka and Maseno South in Kenya);
- Projects with marginal impact, scoring 9 or lower (Talak, CDARMA, Maggia and Tchin Tabisgine in Niger; Kavanmwana and PEFS/PWIS in Kenya)

These categories reflect differences within the sample. Significantly, there are no borderline cases. The most obvious point is that none of the eight Niger projects appear in the high-impact category, reflecting the fact that none scored higher than 6 for benefit continuation or 5 for benefit growth. A related issue is the incidence of much higher external costs per participant in the Niger projects (compare the relevant columns in Figures 3 and 4): because net participant benefits were not correspondingly higher, this tended to reduce the index of benefits/cost as well.

These results suggest two possible explanations: either PVOs operating in Niger must settle for less impact than can be achieved

in Kenya due to environmental constraints; or it is the differences in the strategies and approaches of PVOs themselves that account for most of the variation in impact. It may prove necessary to integrate both of these hypotheses -- i.e., to examine the interrelationship of PVO policy characteristics and project environments -- in order to formulate a meaningful explanation. The analysis that follows in Chapter Three has been developed within this framework.

CHAPTER THREE

ANALYSIS OF DIFFERENCES IN IMPACT

INTRODUCTION

The preceding chapter concentrated on reporting the results obtained from an examination of developmental impact in the PVO project sample. The presentation was mainly empirical and descriptive, yet significant differences were found in the levels of impact achieved by various projects. The purpose of this chapter is to explore those differences (i.e., dependent variables) in relation to two main groups of independent variables: the strategies and modes of operation of the PVOs involved, and the characteristics of the project environments. If the differences in impact can be explained in these terms, then predictions can be formulated regarding the probable impact of various PVO approaches in different settings.

The ability to predict developmental impact would be enormously valuable to policymakers inside and outside the PVO community. By the same token, the state of the art in project design and evaluation falls far short of providing such a capacity. Comparative evaluations, carried out at the field level, are very rare; the present study appears to be the first of its kind specifically concerned with PVOs. This state of affairs makes it very difficult to generalize with any confidence about the likeli-

hood that one approach or another will deliver high impact under particular conditions. This report, which is based on fieldwork in two countries, is intended to be provocative, but not dogmatic, in addressing this problem.

A rigorous statistical analysis of all variables would not be appropriate with the size of the PVO project sample included in this study, nor feasible with the mix of qualitative and quantitative data. Nonetheless it is possible to classify the projects in the sample according to salient characteristics, and to see how those classifications relate to differential impact. This straightforward analytical approach has been applied in this chapter in an attempt to explain the patterns observed in the three dependent variables and in the classification of overall impact as high, moderate or marginal.

POSSIBLE DETERMINANTS OF IMPACT

In the search for independent variables that might determine (or at least influence) the level of impact achieved in a PVO project, there are several possible ways to proceed. One method would be simply to ask what projects in each category of impact (high, moderate, marginal) had in common. While this approach would offer some useful insights, it focuses attention on project-specific features, rather than on the broader program and policy questions that motivated this study. It seems preferable, there-

fore, to begin with an examination of the most probable determinants, as perceived when the methodology of this study was formulated.

One obvious possibility in terms of affecting the level of impact is the magnitude of the investment (the expenditure per participant) in a PVO-assisted project. As in the previous chapter, this variable includes all external costs utilized in the project (whether paid directly by the PVO, or by other agencies), and excludes direct contributions by the participant group. Figure 8 shows, however, that no consistent pattern emerges when this yardstick is applied. On the one hand, relatively high-cost Kenyan projects such as REES/RMLS and Kawangware were found to have marginal impact, while Kyuso, where a much smaller amount was spent per participant, ranked at the top. On the other hand, impact was not inversely related to PVO investment, since several of the more successful projects, such as Kandara and Oasis Aïr, were among the more ambitious and costly of those in the sample.

A second possibility, in terms of formulating predictions, would be a straightforward relationship between the type of activity undertaken (i.e., project function, such as rural water supply) and the level of impact. Here there is more evidence of a correlation, as Figure 8 indicates: the water projects are evenly split between "high" and "moderate" impact; the agriculture/rural development projects are spread through all three categories but cluster in the "moderate" category; the environmental restora-

FIGURE 8

OVERALL IMPACT AS RELATED TO COST AND TYPE OF PROJECT

Level of Overall Impact	Score	Project [(K) = Kenya, (N) = Niger]	Total Cost Per Participant	Function
HIGH	21	Kyuso (K)	$ 69	Agriculture/rural development
	21	Bushiangala (K)	$ 52	Rural water supply
	20	Kandara (K)	$ 239	Rural water supply
MODERATE	15	Telemces (N)	$ 119	Agriculture/rural development
	14	Interchurch (K)	$ 9	Agriculture/rural development
	14	SIM/Maradi (N)	$ 155	Agriculture/rural development
	13	Oasis Aïr (N)	$ 951	Agriculture/rural development
	13	Katothya (K)	$ 29	Rural water supply
	12	Liboré (N)	$ 554	Skill formation/training
	12	Katyethoka (K)	$ 31	Rural water supply
	11	Maseno (K)	$ 49	Agriculture/rural development
MARGINAL	8	CDARMA (N)	$9,033	Skill formation/training
	8	REES/RMLS (K)	$1,243	Skill formation/training
	7	Tchin Tabisgine (N)	$1,114	Agriculture/rural development
	5	Kawangware (K)	$ 554	Skill formation/training
	4	Maggia (N)	$ 587	Environmental restoration
	3	Talak (N)	$2,617	Environmental resotration

tion projects are in the "marginal" category; and the skill formation/training projects are either "moderate" or "marginal."

While this pattern is suggestive, it reflects only the four functional types included in this sample, whereas PVOs are also involved (even in the two countries visited) in other types of development projects. This raises the question of how far the analysis can be developed from the empirical base obtained in this study. The data collection strategy had anticipated this problem, however. Recognizing the limitations of the sampling procedure that would have to be employed, it gave special attention to the approaches and modes of involvement of the PVOs in the specific projects. The main variants are identifed in the following section.

PVO STRATEGY VARIABLES

The information collected from PVO staff and representatives helped to define the policy and approach adopted in the identification, design and implementation of each project. These data are summarized in Charts 7 and 8 in Annex B of this report, as reference material for interested readers. A review of the full sample then led to a classification of four distinct modes of PVO involvement in specific projects. These modes of involvement, referred to hereafter as "PVO strategies," encompass both the philosophy and the priorities of the PVO, and the ways in which

these have ben applied in the evolution of the project. For ease of presentation, the strategies will be referred to frequently by number:

> Strategy 1: Supplementing a specific community project that is based on self-help, with funds for materials and/or equipment (utilized for all four of the Kenya water projects, Bushiangala, Kandara, Katothya and Katyethoka);
>
> Strategy 2: Low profile-support to a project that depends on small groups at the local level to carry out activities and make key decisions; (used in six of the agriculture/ rural development projects, all but Tchin Tabisgine);
>
> Strategy 3: Major commitment of technical assistance, and a high degree of PVO involvement in defining and directing project activities (exemplified in the sample by REES/RMLS, Kawangware, Tchin Tabisgine and Talak); and
>
> Strategy 4: Financial and technical support to a project initiated and carried out by the host country government (exemplified by Maggia, CDARMA and Liboré).

The principal features of these strategies are briefly summarized below, in order to set the stage for a discussion of their relationship to observed impact.

> Strategy 1: *Supplementing a specific community project that is based on self-help, with funds for materials and/or equipment.*

The four projects in this category are all located in Kenya, and involve assistance from a single PVO or a group of PVOs to

augment self-help efforts. The phenomenon of self-help in Kenya -- widely known as the *Harambee* movement -- is manifested in thousands of projects, mainly in the rural areas. Local resource mobilization, which is usually a precondition for PVO assistance to a project, takes the form of cash donations (often but by no means always voluntary), indigenous materials (e.g., sand or rocks for building), skilled and unskilled labor, and land (where needed for a specific project). Rural water projects represent one facet of *Harambee*, but PVOs also aid other community endeavors, such as the construction of schools or clinics, or the establishment of cooperatives. At the present time, water projects are probably the highest priority within the Kenyan *Harambee* movement, and thus tend to attract PVO resources and support.

This classification highlights the potential for an external donor to "top off" a project that has reached maturity through a self-help effort. A cash grant is one possible form for such assistance (e.g., the support from NOVIB to Bushiangala), or the PVO may choose to supply materials or equipment under fairly close managerial direction, as CARE has done with its aid to all four water projects in Kenya.

In cases where Strategy 1 is employed, the PVO has no direct role in the origination or design of the project, and generally avoids assuming responsibility for its ongoing support. Thus specific community projects that involve construction or repair of a facility -- a finite set of tasks, for which resource needs are clearly spelled out -- are well suited to PVO participation on

these terms. In a situation where there is a large number of potential "candidate" projects, as in Kenya, the PVO may be able to insist on a certain level of local contributions before agreeing to commit its own resources to a project.

Strategy 2: *Low-profile support to a project that depends on small groups at the local leve to carry out activities and make key decisions*

cerned with rural development, and specifically with improving agricultural productivity. What distinguishes them from other cases in the sample, however, is their reliance on local-level groups as the medium for project activities, with PVO personnel maintaining a relatively low profile. Of the six, Kyuso and Oasis Air have moved furthest towards instituting formal organizations (in both cases, a cooperative society) to oversee project activities. Telemces may follow the same course as the project evolves further. The other three projects (Interchurch, Maseno and SIM/Maradi) are comparatively unstructured and are highly decentralized as a matter of policy.

The PVOs utilizing Strategy 2 have had a major influence on the origination of the project, because their field staff have

with participating groups that are often affiliated in one

way or another with an organized church.[1] But decisions on the content of activities have generally been left to the groups themselves, with one result being a wide range in the intensity of involvement with the project from one locality to another, especially for Maseno and Interchurch. Although four of the projects concerned were church-based, their policies toward participation have been inclusive rather than exclusive.

Another feature of this strategy is the small size of project staff (PVO personnel or others) relative to the number of intended beneficiaries. The projects concerned, with the exception of SIM/Maradi (limited to four villages), are ambitious in their attempted geographical coverage. Demographic factors determine whether the potential target population is large or small: Telemces and Oasis Aïr are in very lightly settled areas, while Maseno is in a very heavily populated part of Kenya. The Kyuso and Interchurch projects have been essentially one-man operations, while Maseno has only four field staff. In these circumstances, the low profile of PVO involvement is virtually a foregone conclusion. In some cases, this represents a deliberate decision: Lutheran World Relief staff had to make a sustained effort to "sell" the concept and design of the Telemces project in order to ensure the approval

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[1] At Kyuso, although PVO funds are channeled through the Catholic Church, the missionary who initiated the project has deliberately chosen not to base the plow and tractor schemes on local churches, since church members are a small minority in the population and he wishes to maximize participation in the project. Neither Telemces nor Oasis Aïr associated itself in any way with Christian churches. The staff of CWS and LWR connected with these projects, did not engage in any Christian mission work. (Both areas were overwhelmingly Muslim.)

and full participation of government officials.[1]

Strategy 3: *Major commitment of technical assistance and a high degree of PVO involvement in defining and directing project activities.*

A common characteristic in this category is the critical importance of PVO personnel in identifying, developing and implementing the project. In all four cases from the sample, it is reasonable to suppose that, without the impetus of the PVO's presence, the project (and most if not all of its component activities) would not exist. Stated differently, the experimental content of the project places it outside the realm of activities that the host country government or target community would routinely undertake. This is reflected in the relatively heavy involvement of expatriate technicians (e.g.,Talak, and until recently, Tchin Tabisgine) in staffing and management of the project; even if expatriates give way to local staff as the latter gain appropriate skills and experience (e.g.,REES/RMLS and Kawangware), the PVO remains responsible for obtaining financial support for the project.

Strategy 3 represents one end of a continuum in this classification system, with the greatest degree of responsibility for decisionmaking on project policy and the allocation of resources being borne by the PVO. Relatively speaking, the four projects employing Strategy 3 are "high-risk" projects, not necessarily on

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[1] Oasis Air offers an equally interesting example: during its first phase (1974-6) it adhered fairly closely to Strategy 3 (see p. 58), but it was carefully redesigned in the second phase, in order to reduce the role of CWS, and [illegible] interaction between government technicians and the local population.

technical grounds, but in terms of the PVO's visibility and potential accountability for results.

Strategy 4: *Financial and Technical Support to a Project Initiated by the Host Country Government.*

Although none of the Kenya projects fit this classification, there are three in the Niger subsample that were developed along these lines. In each case the PVO took on a project that was proposed by the government and whose design was essentially complete. Formally, at least, the role of the PVO is to supply resources, mainly funds, but sometimes including technical assistance (as at CDARMA and Liboré), to enable government services to execute the project. Nigerien officials have often been quoted as saying, "*il ne nous manque que le moyen*" ("we only lack the means," i.e., the funds), implying that assistance from PVOs or larger donors need involve no more than transferring resources to pay the bills of particular projects.

Recent policy directives indicated that the Government of Niger views Strategy 4 as the most appropriate mode of PVO involvement in the development process.[1] Rather than initiating new projects themselves or working directly with groups at the local level to identify possible projects, it is proposed that PVOs

[1] The Ministry of Rural Development has spelled out this policy in communications to GAP, the consortium to which all PVOs in Niger belong, with the exception of Africare.

wait for projects to come up "through the system," and then select those that they would like to support. PVO activity on these terms obviously falls at the opposite end of the continuum from Strategy 3, since the risk element and the degree of accountability are minimized, at least in theory.

In practical terms, the involvement of the PVO in implementation can go far beyond merely writing a check to cover project expenses. In both CDARMA and Liboré, technicians from Euro Action Acord have been present as project managers, and have been active in shaping the direction of the project. In the Maggia Valley Reforestation Project, CARE's role is more restricted, and the Peace Corps Volunteer forester attached to the project reports to his superior in the government system and not to CARE. Thus although CARE has been closely associated with the project since it first began rising "through the system," there is little scope for direct CARE involvement in decisionmaking.[1]

STRATEGIES AND OUTCOMES

When the four strategies are matched against the success measures (levels of impact) identified in Chapter Two, some interesting contrasts appear. In Figure 9, a 4 x 3 matrix has been

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[1] In a dune stabilization project at Yegalalane (about 30 km. from the Maggia Valley), which CARE finances on the same basis, villagers are paid for the millet stalks they "donate" to the project. These payments are made out of CARE funds. The government forester made this decision without consulting CARE, which has reluctantly honored the commitment.

FIGURE 9

OUTCOMES OF PVO STRATEGIES IN SAMPLE

Level of Impact Achieved	TYPE OF PVO STRATEGY EMPLOYED			
	(1) "Top-Off" Local Self-Help Effort	(2) Assist Small Local Groups	(3) High PVO Profile/ Technical Assistance	(4) Support Government-Managed Project
HIGH (Total score 19-27)	Bushiangala (K) Kandara (K)	Kyuso (K)	-	-
MODERATE (Total score 10-18)	Katothya (K) Katyethoka (K)	Telemces (N) Interchurch (K) SIM/Maradi (N) Oasis Air (N) Maseno (K)	-	Liboré (N)
MARGINAL (Total score 1-9)	-	-	REES/RMLS (K) Tchin Tabisgine (N) Kawangware (K) Talak (N)	CDARMA (N) Maggia (N)

constructed to show how the projects cluster when the two variables are correlated. The matrix shows that Strategies 1 and 2 were associated with high or moderate impact, whereas Strategy 3 was associated with marginal impact, and Strategy 4 with marginal impact in two cases and moderate impact in one. Projects employing the same general approach did not always generate comparable impact, particularly in the dimensions of benefit continuation and benefit growth. But a fairly clear distinction appears between Strategies 1 and 2 on the one hand, and 3 and 4 on the other.

The explanatory model introduced earlier in this report emphasizes the interaction between PVO policy characteristics and the project environment. In this conception, it is the way that these independent variables are combined that determines the magnitude of direct benefits and the prospects for benefit continuation and benefit growth. This means that the potential success of PVO strategies cannot be properly assessed in isolation from the settings in which they are applied. It may also help to determine why similar approaches generate high impact in one situation and only moderate impact in another.

The data collected on the environmental characteristics associated with each project are summarized in Charts 9 and 10 that appear in Annex B. The information is organized in five categories, which correspond to aspects of the project environment, broadly defined:

- The physical resource base, encompassing the features of the natural environment and its agro-economic potential;
- Preexisting developmental trends in the area served by the project;
- The organizational base, with emphasis on indigenous patterns of formal and informal authority and cooperation;
- Societal differentiation along economic, religious or ethnic lines within the population served by the project; and
- Host country government resources, as applied to development activities in the project area.

Readers interested in a project-by-project review of these variables can consult the annex material, which is provided for that purpose. The following discussion concentrates on the ways that the environmental setting influences the outcomes of each of the five PVO strategies. Some of the broad similarities that obviously exist across the sample (for example, poverty of the physical resource base, or a scarcity of host country government resources) are given less emphasis than the specific environmental features associated with the outcome of a given strategy. Thus the aim is to suggest under what conditions various strategies are likely to generate sustained developmental impact.

The clustering of projects in Figure 9 suggests that it may be useful to discuss Strategies 1 and 2 together, in relation to their environments, and then proceed separately to examine the second pair (Strategies 3 and 4) in relation to their settings. Figure 10 shows how the projects utilizing Strategies 1 and 2

FIGURE 10

ENVIRONMENTAL FACTORS ASSOCIATED WITH STRATEGIES 1 AND 2

Project	Level of Impact	Impact Variable Scores[1]	Agro-Economic Potential[2]	Existence of Indigenous Developmental Trends Before Project[3]	Societal and Organizational Characteristics[4]	Contact with Host Country Government Technicians Before Project[5]
Bushiangala	High	9-8-4	Medium/High	Yes	Formal organizations with good cooperation	Frequent
Kandara	High	6-8-6	High	Yes	Formal organizations with good cooperation	Frequent
Katothya	Moderate	8-4-1	Low	No	Formal groups weak/ informal cooperation	Limited
Katyethoka	Moderate	8-4-0	Low	No	Formal groups weak/ informal cooperation	Limited
Kyuso	High	9-6-6	Low	No	Formal groups weak/ informal cooperation	Limited
Telemces	Moderate	7-4-4	Low/Medium	Yes	Farmer/pastoralist interface, some conflict	Almost none
Interchurch	Moderate	8-3-3	Low	No	Formal groups weak/ informal cooperation	Limited
SIM/Maradi	Moderate	8-3-3	Low/Medium	No	No formal organizations/ informal cooperation	Almost none
Oasis Aïr	Moderate	4-5-4	Medium	Yes	Strong tradition of informal cooperation	Almost none
Maseno	Moderate	2-5-4	Medium	No	Numerous groups but cooperation uncertain	Limited

[1] The three numbers in the series are the scores for the net benefit/cost ratio, benefit continuation and benefit growth, respectively.
[2] Refer to the first row in Charts 9 and 10, Annex B.
[3] Refer to the second row in Charts 9 and 10, Annex B.
[4] Refer to the third and fourth rows in Charts 9 and 10, Annex B.
[5] Refer to the fifth row in Charts 9 and 10, Annex B.

compared with the main environmental characteristics, on which summary categorizations have been imposed. (The annex charts convey a better sense of the underlying data, which are mainly qualitative.) The purpose of Figure 10 is to highlight the major environmental contrasts that may account for differences in overall impact.

Strategy 1

The direct benefit/cost score was high in all cases, but important differences emerged in relation to the dimensions of benefit continuation and benefit growth. At Kandara and Bushiangala, high impact in all three dimensions was achieved when PVOs "topped off" local *Harambee* efforts. A similar mode of assistance in the two other water projects (Katothya and Katyethoka) led to appreciable direct benefits, but a score of only 4 for benefit continuation and scores of 1 and 0, respectively, for benefit growth. Not only were the latter two projects very small in scale, but they were situated in a resource-poor area with a weak organizational base and very little ongoing, complementary development activity.

The data suggest that Strategy 1 may have a high payoff, with PVO assistance helping to catalyze a broadly based process of developmental change, when a local self-help effort already rests on strong resource and organizational bases. The ability of PVOs to respond rapidly to requests for assistance, and to work directly with local leadership on a non-bureaucratic basis, is

widely acknowledged and appreciated. But the data also indicate that the topping-off strategy cannot by itself generate a broadly based process of developmental change. The expectations for this strategy must necessarily be modest, since Bushiangala and especially Kandara appear to be unusually favorable settings for self-sustaining development.

The field team did not encounter or learn of any projects in Niger that employed Strategy 1. There is no contemporary parallel in Niger to the Kenyan *Harambee* movement, and self-help projects are hardly ever begun spontaneously at the community level. Thus a strategy in which the PVO waits for initiatives from the local level, and responds by matching or supplementing participants' contributions to a project, is simply not applicable in Niger. In overall terms, to the extent that the Kenyan pattern is atypical of developing countries, this strategy may only have a limited application.

Strategy 2

The environments where the low-profile/small group strategy was applied share many common features, including widely dispersed rural populations, a high rate of outmigration and an absence of government agricultural services operating at the local level. Among the three Kenyan projects in this sample, only Maseno South is situated in an area of moderate agricultural potential.[1]

[1] There are parts of the diocese, notably Kericho and Kisii Districts, which have high potential and produce an array of cash crops, but the Anglican Church is not well represented there, and thus there are few local groups in these areas associated with the Maseno South project.

In all three instances, the PVOs concerned committed very modest amounts of resources to projects promoting agricultural productivity. As Figure 10 indicates, there were no significant developmental trends, established local organizations or functioning host country government services that could be built upon. While the absorptive capacity of the groups participating in the Interchurch and Maseno projects was undoubtedly small, there is reason to believe that a more intensified effort - possibly concentrating on smaller populations, or enlarging the technical staff of the project - would have yielded positive results, in the form of higher scores for the second and third impact variables.

The most successful of the Strategy 2 projects, Kyuso, is differentiated from Interchurch (whose area of coverage actually overlaps with Kyuso's) and the others, in the specific way that the strategy was applied rather than by any environmental contrasts. A sharper focus on the technology selected (resulting from a prolonged dialogue between the project initiator and local farmers) and on the system to deliver it (a revolving loan fund managed by a cooperative) seem to have accounted for the higher level of impact in Kyuso relative to the others.

Among the Niger projects employing Strategy 2, both Oasis Air and Telemces were able to capitalize on indigenous developmental trends that proved to be important for the content and direction of the project. Their specific focus was comparable to that of Kyuso, as opposed to the more diffuse and unstructured content of the church-related projects. SIM/Maradi's relatively

high ranking in the sample, like that of Interchurch, was due more to the evidence of cost-effectiveness (a high ratio of net benefits to costs, although benefit verification was weak) than to demonstrated success in strengthening the local groups participating in the project.

Overall, the potential of Strategy 2 to deliver impact is encouraging in relation to the staff and resources committed by the PVOs and the resources (human and material) available to the participating local groups. It may be especially appropriate as a vehicle for initiating development activities among groups that have been more or less untouched by conventional services. But more complex "follow-on" projects would clearly require tighter organization and coordination than observed in the Strategy 2 projects.

Strategy 3

The data indicate that this high-profile approach (in terms of the PVO presence), with its emphasis on introducing ideas and activities that are new to the participating population, yielded relatively low impact in the projects observed. As Figure 11 shows, the environments in which the strategy was applied were notably difficult, and the risk of failure (in terms of enlisting the type of resource commitment from participants that would assure benefit continuation) appeared to be accordingly high. The material in Charts 9 and 10, Annex B, elaborate on the contrasts in Figure 10 and 11: note, for example, the differences in "preexisting

ENVIRONMENTAL FACTORS ASSOCIATED WITH STRATEGIES 3 AND 4

	Project	Level of Impact	Impact Variable Scores[1]	Agro-Economic Potential[2]	Existence of Indigenous Developmental Trends Before Project[3]	Societal and Organizational Characteristics[4]	Contact with Host Country Government Technicians Before Project[5]
STRATEGY 3	REES/RMLS	Marginal	0-2-6	Medium[6]	(Yes)[7]	No tradition of cooperation among traders	Limited
	Tchin Tabisgine	Marginal	1-3-3	Low/Medium	No	Heterogeneous new settlement, post-drought	Almost none
	Kawangware	Marginal	1-2-2	Medium/High[6]	No	Transient, heterogeneous, few organizations	Limited
	Talak	Marginal	1-1-1	Low	No	Local groups not unified/no cooperation	None
STRATEGY 4	Liboré	Moderate	1-6-5	Medium	No	No formal organizations/ informal cooperation	Limited
	CDARMA	Marginal	1-3-4	Low/Medium[6]	No	No tradition of cooperation among blacksmiths	(Not applicable)
	Maggia	Marginal	1-2-1	Low	No	No formal organizations/ little cooperation	Almost none

[1] The scores for net benefit/cost ratio, benefit continuation and benefit growth, respectively.
[2] Refer to the first row of Charts 9 and 10, Annex B.
[3] Refer to the second row of Charts 9 and 10, Annex B.
[4] Refer to the third and fourth rows of Charts 9 and 10, Annex B.
[5] Refer to the bottom row of Charts 9 and 10, Annex B.
[6] Agro-economic potential of the project area is not very significant for the type of project being implemented.

developmental trends" and "organizational base" between Tchin Tabisqine and Talak (Strategy 3) and Oasis Aïr (Strategy 2) or between Kawangware (3) and Kandara (1). In the same vein, the REES/RMLS project (3) is operating in an uncharted field, namely small business development, characterized by a high mortality rate among its potential client enterprises.

The matching of Strategy 3 with relatively unpromising environments is consistent with the general PVO commitment to work with the "poorest of the poor." None of the four projects is redundant, in the sense of duplicating other available services. To one degree or another, the capacity to "tinker"[1] and to apply trial-and-error techniques to specific problems, is a source of pride to the PVOs involved. They argue that such efforts fill a critical vacuum in the development process.

The findings suggest the existence of a trade-off between consistent achievement of impact on the one hand, and the capacity to learn from projects that are carried out under conditions of greater uncertainty, on the other hand. Viewed at one point in time, projects may fall on either side of the divide, but the key policy question is to determine when positive results (i.e., sustainable impact) can be demanded legitimately as an output in projects of the latter type. Strategy 3 projects tend to leave

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[1] The French term, *bricoler*, is widely used with reference to PVO activity in Niger, both by critics who express dissatisfaction with alleged "amateurism" on the part of volunteer technicians, and by supporters who emphasize the need for experimentation and innovation in conditions of uncertainty.

these "proof of the pudding" questions unanswered. The policy implications of this problem are explored further in Chapter Four.

Strategy 4

The latitude for the participating PVO to determine a project's focus, target population and implementation techniques is narrowest when this strategy is applied, since the project has originated in the host country government's system. This in turn means that PVO priorities (e.g., a desire to work with the most marginal groups, or to try out a number of possible technologies) must be subordinated to -- or at least reconciled with -- those of the government. As already noted, the Nigerien Government has begun to stress this type of partnership as the optimal way for PVOs to participate in the development of the country's rural areas.

The specific thrust of the CDARMA and Liboré projects involves promotion and spread of specific technologies, without much dependence on local-level organizations. Each project hopes to leave in place a system of production that can finance itself, under the overall direction of government services. Both have attempted to tap and make creative use of skills indigenous to the participants -- the blacksmithing tradition and the latent managerial skills of small farmers -- in establishing such a system. The conclusion drawn from the data was that Liboré had moved considerably further than CDARMA towards putting its system on a self-sustaining basis. Liboré, in fact, might have ranked highest

among the Niger projects if either (a) a larger number of participants were certain to be involved on a continuing basis, or (b) total project costs had been smaller.

The Maggia Valley case illustrates some of the constraints that Strategy 4 may encounter. CARE/Niger is responsible for paying the bills of the forestry service in implementing this project,[1] but cannot exert much influence to enhance the participatory content of the project, which has been minimal. Under such arrangements, the PVO has no ability to make the most of the potential existing in the community for self-help and resource mobilization (however limited). Here formal responsibility has rested with another government service, *Animation*, but no serious effort was made to motivate the population to support reforestation and protect newly planted trees. The result is a project of long-term environmental benefit to most farmers in the valley, which in the popular idiom, "belongs to the government."

GENERATING IMPACT: AN OVERVIEW

If the more successful projects in the sample (including those in the "moderate" impact category) are examined as a whole, certain common characteristics appear in the process of project development

[1] These expenditures, which CARE meets under its project agreement with the Government of Niger, totalled $53,781 in fiscal year 1978. Of this amount, however, $7,289 was spent on gasoline and repairs for one vehicle. The cost of materials for the project nursery was less than $7,000. Administrative and management costs thus far extend the technical costs of implementing the project.

These characteristics (which are not synonymous with the strategy types per se) appear in greater or lesser degree among those projects that scored well for all three impact variables:

- Identification of a technology that is immediately applicable under local constraints, with a direct return to those who adopt it;
- An explicit effort to gain the widest possible commitment to the proposed intervention from prospective users, before it is introduced on a broad scale;
- A deliberate attempt to draw on local capacities for self-help, whether latent or already firmly established;
- A policy of working through the formal administrative structure and the indigenous system of authority, in order to maximize access to the population of intended beneficiaries; and
- A demonstrated capacity to modify project content, dropping those interventions that do not take root, as implementation proceeds.

While these do not constitute a complete formula for generating impact -- for one thing, they must be translated into concrete terms applicable to the immediate project environment -- they indicate key steps in the process through which the more successful projects evolved to their current state. It is now appropriate to ask how easily these steps can be incorporated into the four strategies that have been discussed in this chapter.

In its purest form, Strategy 1 fits these requirements very neatly: decisionmaking is decentralized, and the PVO merely awaits the outcome of the process at the community level. Much depends,

of course, on the way that project formulation and resource mobilization operate within the community. Since the PVO itself is unlikely to intervene directly in this process, it must determine, in choosing among "candidate" projects, whether the requisite steps have been followed. This strategy, as already pointed out, reduces the possibility of improving the content of locally-generated projects. The short time-frame of the assistance also leaves the dynamic elements of benefit continuation and benefit growth to be shaped by environmental factors.

Strategy 2 contains the greatest latitude for executing the five steps, precisely because it is the least structured of the four. In its purest form, the approach depends on local-level support for the intervention, and evidence of self-help in the participating groups; without these, nothing of any substance will happen. Yet among the projects in the sample that utilized Strategy 2, the process was not followed through with equal vigor and imagination in all cases. The strategy demands creativity and patience in almost equal amounts: even in unpromising environments, such as Kyuso's, these can generate very impressive results.

At first glance, Strategy 3 also seems perfectly consistent with the process outlined above. On a rhetorical level, and in terms of the broad philosophy of development assistance, the organizations concerned would have no difficulty in endorsing it. But in operational terms, the process demands great flexi-

bility, and a devolution of decisionmaking about project content and direction that is difficult to reconcile with Strategy 3.

In the projects observed, the continuation of project activities never hinged on participants' willingness to support them with the resources at their disposal. (This is the "proof of the pudding" issue, against which all projects with a developmental thrust should eventually be assessed.) Had this been the case, it is doubtful whether an adequate commitment would have been forthcoming from the beneficiary groups concerned.

The adoption of Strategy 4 places powerful constraints on a PVO's ability to execute the recommended process itself. It may be that the host country government's system of project development will adhere to the same general pattern. This was not found to be the case in Niger, however, for it was noted that the participatory content of projects rising through the system was relatively low. Although the principle of self-help is formally endorsed as a matter of government policy, it has not been used as a precondition for development assistance. It is difficult to reverse precedents: thus trying to introduce a self-help component into an ongoing project (in which ideas as well as resources originated outside the community) poses very serious problems for PVOs, other donor agencies and host country governments as well.

CHAPTER FOUR

POLICY CONSIDERATIONS

INTRODUCTION

policy questions raised by the findings on differential impact within the sample of 17 PVO projects. Thus far the reporting and analysis of results has concentrated on the sample itself and on variation within it. But because the study was motivated by general concerns and assumptions regarding PVO performance at the project level, the results need to be placed in a wider context. This will lend some substance to the reciprocity implied in AID's relationship with the PVO community, by highlighting potentially generalizable lessons in the experience of PVOs in the two countries visited.

The four main questions addressed are those posed in the t chapter of this study:

- Are PVO activities resulting in development benefits?
- Are these benefits accruing primarily to the poorest members of the population in developing countries?
- Will the benefits be sustained when PVO activities (whether financed by AID or other sources) are phased out?

Are PVO activities cost-effective in terms of potential spread and replicability?

A second, related purpose of this chapter is to relate the methodology used in the study to AID's evaluation needs with respect to PVO development activities. This overview is intended to complement the fairly explicit description of the methodology that is contained in the text and in the annexes.

POLICY QUESTIONS

As already suggested, a comparative study of this kind invites generalizations about the subject at hand. A reasonable degree of caution needs to be exercised, however, lest the generalizations stretch beyond the limits of the data base obtained in the two countries. The four principal questions are discussed and then hypotheses for further study are specified at the end of this section.

Delivery of Benefits

It was noted in Chapter Two that all projects in the sample could be credited with generating at least some positive benefits for the participating populations. This in itself is an encouraging finding. The conversion of benefits-in-kind to a monetized equivalent, while possibly controversial and certainly imperfect, permitted standardization of data that were extremely varied in quality and in quantity. This led naturally into observations on the degree of differentiation within the sample. Since a deliberat

effort was made to seek out "best" PVO projects, it would have been surprising if no benefits were in evidence: the spread from high to low, both in the magnitude of the direct benefits realized, and in the ratio of net benefits to cost, proved to be more revealing. The analysis of variation in impact was developed in Chapter Three, and the outlines of an explanatory model were spelled out.

One point of significance -- clearly borne out by the sample and the findings derived from it -- is that the PVO community is very diverse and heterogeneous. In terms of the approaches taken, the goals adopted and the amounts of resources channelled into projects, variation among PVOs appeared to be at least as great as, if not greater than, the degree of difference between PVOs and other agencies involved in development. This is especially true if the investments made in projects are standardized on a per-participant basis. Several of the projects which affected a small number of participant households had made comparatively vast expenditures to reach their current state. On the other hand, within the same sample there were several projects characterized by a low-profile approach, in which $30 or less had been expended per household, in keeping with the "small-is-beautiful" stereotype that is often associated with PVOs.

In addition to documenting variation in project scale, the mode of PVO involvement and the impact achieved, the analysis showed how these variables are interrelated. A fairly clear pattern emerged from the categorizations employed, giving the policy-

maker a manageable way of examining impact (as a dependent variable) on a cross-project basis.

No recommendations of a "go/no-go" nature have been proposed, instructing policymakers to fund projects with one type of strategy and cut off support to others. But at a general level -- pending the accumulation of a broader data base -- the results show the importance of discriminating between more and less successful approaches. They also open the door to doing ameliorative evaluations of specific projects, including redesign or modification of particular inputs, although such an exercise falls outside the scope of this study.

Involvement with the Rural Poor

It has often been remarked that many PVOs had an established tradition of working with the neediest and most disadvantaged groups in developing countries, long before the larger donors such as AID and the World Bank began to stress equity in their own policy statements. A January 1978 report based on field visits to Colombia and Indonesia by an AID team noted and commended the work of PVOs with the rural and urban poor in these two countries.[1] When the present study was conceived, the generally favorable response of the U.S.-based PVOs themselves could be attributed to a shared belief that working with the poor, indeed the "poorest of the poor," is what PVOs do best.

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[1] *Field Appraisal of Private and Voluntary Organizations*, Operations Appraisal Staff, AID, January 26, 1978, pp. 2-5.

The data in this sample from Kenya tend to substantiate this claim. The projects examined here have been implemented in situations where conventional mechanisms of development assistance (whether from the host country government or larger international donors) have not been able to deliver benefits at the level required. In no case could PVO-supported efforts be called redundant, no matter what level of impact was actually achieved.

The evidence from Niger is similar, insofar as the characteristics of participant groups are concerned. But the ground rules under which PVOs operate in Niger do not permit free choice of project activities or target areas and populations. In the past several years, several PVOs that have indicated a strong preference for working with specific ethnic groups, or in specific regions of the country, have encountered some resistance from the government.[1]

The prospects for future activity by PVOs in Niger are shaped to an increasing degree by government policies regarding project

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[1] A case in point has been the relatively heavy concentration of PVO activity in the Agadès Department, where the population is very small in proportion to the rest of Niger, and consists mainly of nomadic Tuareg pastoralists. The effects of the drought were particularly devastating for this group, many of whose herds of livestock were wiped out. A number of PVO projects were initiated, first involving food distribution and humanitarian relief, then geared to aiding the transition towards self-sufficiency. Tchin Tabisgine and Talak were conceived as part of this process, and their experimental flavor can be traced in part to uncertainties about how to effect this transition. As seen from the viewpoint of government officials, however, the volume of resources being channelled into these projects was disproportionately large. It is reasonable to assume that this perception was a major cause of the "hands-off" attitude that GON technicians have adopted vis-à-vis the two projects, which has diminished the probability of sustained impact.

development. The trend is towards much closer liaison and coordination between the Ministry of Rural Development and GAP (the PVO consortium) in the selection and approval of projects in which PVOs might become involved.[1] This portends a reduction in the number of instances where either Strategy 2 (low-profile assistance to decentralized groups[2]) or Strategy 3 (high PVO profile and assumption of risk) would be applicable. There would be a corresponding increase in the utilization of Strategy 4 (funding for host country project management).

What are the implications of this trend for the ability of PVOs to reach the rural poor? The notion that all projects would be "auctioned off" among members at GAP's monthly meetings is troubling to some PVO representatives, notably those whose staff have a tradition of active field-level involvement in project design and implementation. For PVOs that function primarily as funding agencies, of course, such a system would be more palatable.

At present, GON priorities in terms of the general target group for development assistance do not clash with the fundamental PVO commitment to the rural poor. However, it is clear that PVOs

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[1] GAP has recently recruited a full-time general secretary and has projected a budget of approximately $40,000 for the current fiscal year. The organization meets monthly, and currently has 25 members, including all PVOs in Niger with the exception of Africare. An official from the Ministry of Rural Development attends the GAP meetings, where he articulates GON policies and reports on projects approved by the Ministry, for which PVO assistance is requested.

[2] It may be significant that two organizations that applied Strategy 2, Church World Service (Oasis Air) and Lutheran World Relief (Telemces), are not presentl undertaking any major new projects in Niger. During 1979, CWS will carry out a thorough review of its country program in order to determine whether it should be continued or phased out altogether.

attach much more importance to eliciting participation from project beneficiaries -- in some cases, linking external assistance to evidence of local resource commitment -- than does the Nigerien Government. This means that "partnership" projects (particularly those employing Strategy 4) may be implemented along lines that only partially fulfill the policy goals of the participating PVOs. In this sense, the Kenya situation, which affords much greater autonomy, provides a better test case of the application of PVO policies.

Sustainability of Benefits

This issue is often raised in relation to the effect of programs based on humanitarian relief and rehabilitation. Programs of this kind were the mainstay of PVO activity in the developing world for more than a generation. Accordingly, questions regarding the long-term effect of external assistance are frequently directed at PVOs themselves. In recent years, of course, AID too has become increasingly concerned with finding ways to make development a self-sustaining process, rather than one that depends on continual infusions from donor sources.

The sample selection for this study deliberately concentrated on projects with a developmental thrust, thereby excluding those consisting primarily of relief activities such as food distribution In this respect the timing of the study was probably fortunate: a comparable sample could certainly not have been obtained four or

five years ago, when Niger was suffering from a prolonged drought and food shortages had reached emergency proportions. At that time, many PVOs undertook specific projects for the first time in Niger, usually responding more rapidly to the emergency than the bilateral aid agencies and other donors were able to do. Drought conditions also prevailed in the early 1970s in Kenya's Kitui District, site of several projects in the sample, and several PVOs responded then with a food distribution program.

Without plunging into the endless debate over the merits of food relief, the operative question for this study was: where do the PVOs stand now, and how are their policies manifested in the projects they undertake? In other words, is there a realistic perception of why sustainability is needed and how it can be achieved?

For many of the organizations whose projects were studied, the transition to a developmental emphasis has been quite rapid. Yet this transition is a process, rather than a single event. It has sometimes continued within the context of a particular project: e.g., Oasis Aïr and Tchin Tabisgine, with the former having moved further to enhance the potential for continuation of benefits in the post-project phase. Frank self-criticism characterizes many of the PVO staff interviewed for this study; they frequently focus on the failures of efforts to create a basis for sustaining benefits over the medium and long term. As already explained, the obstacles to doing so in the Nigerien context are formidable.

The second of the three dependent variables zeroed in on this problem, and required the field team to make predictive assessments based on the data at hand. The attempt to derive an operationally useful definition of "participation," which could be observed and measured within the projects, was consistent with the rhetoric and philosophy of the PVOs themselves.

In sum, the element of benefit continuation was central to the analysis, and the PVOs covered in the sample were found to be devoting serious attention to the problem. Their variable success in laying the groundwork for it parallels the record of AID and other members of the development community, who share the same concerns.

Potential Replicability

To date, no serious effort has been made by AID to extract lessons from the PVO experience and apply them to its own programming. But this possibility exists, and appears to be one reason underlying the Agency's increasing support to PVOs. In terms of the potential for spread and replication, there are two distinct questions:

- Is it reasonable to try to reproduce specific projects at the same scale in a multitude of different settings?
- Can the "micro-solutions" applied in successful PVO projects be scaled up to fit macro-level development efforts?

Regarding the first question, the majority of projects studied were affecting small populations, inviting speculation about how their impact might be spread more widely. One alternative would be to undertake similar projects of comparable size in numerous other communities. Yet most projects in the sample would not be suited to massive duplication along such lines. The ones that work best, and generate the most impact, tend to be well adapted to their specific environments. Furthermore, they are often shaped and led by individuals with unusual, if not unique qualities (Kandara being the most obvious example). Recognizing this, it makes little sense to attempt a carbon copy of one project in a different setting. This is equally true of attempts to introduce a multiplier factor, increasing project inputs, without allowing for the need to modify their content and relative weights.

These warnings do not rule out wider application of the technical content of a successful project. For example, the shallow concrete well construction program supported by Lutheran World Relief has been integrated into half a dozen different projects in Niger, following initial trials in the Oasis Aïr project. Yet the precise terms on which this technology is employed vary from project to project, as anticipated and intended by LWR.

More importantly, though, the resources at the disposal of PVOs simply could not support a program of massive replication in which the scale of project activities was held constant. Even with external funding (e.g., from AID), the number of qualified,

motivated personnel needed to operate a multitude of small projects could not be recruited, let alone placed in the field and adequately supported.

Finally, as the commentary on Strategies 1 and 2 pointed out, successful projects in which PVOs have played pivotal roles are rarely "total solutions." They are likely to represent the thin end of a wedge, introducing a process of developmental change that will require other, complementary inputs from both inside and outside the beneficiary community. This requires looking beyond the successful small project itself, rather than accepting it as a finished item that is suited to mass production. Within the sample covered in this study, there are no cases in which the learning process has come to a halt.

The second alternative involves scaling up the approach and content of successful PVO projects, possibly shifting to another type of organization for implementation. Aside from the merits of the model being considered for large-scale application, there are questions about the transition. Some observers argue that it is in the interest of both the larger donors and the PVOs themselves to maintain a division of labor, i.e., to concentrate their efforts on different kinds of problems. It is claimed that their modes of operation are so dissimilar that the larger agencies should not even try to emulate the approaches of the voluntary organizations. One PVO representative stated his doubts succinctly: "there is no way that a five-ton truck can go down a bicycle path."

In other words, the bureaucratic system and the attendant incentives to commit large amounts of resources cannot assimilate techniques based on flexible, decentralized decisionmaking. This situation may be improved somewhat by a matching grant agreement program that is being evolved by AID, which would increase the ability of selected established PVOs to effect their own flexible micro-level development programs.

These views are not uniformly held, however: several of the projects in this sample have been explicitly cited as possible prototypes for larger, more ambitious efforts. In the case of Liboré, the process of scaling up was already underway; REES/RMLS was planning expansion to a national small enterprise extension program if funding could be obtained; and windbreaks similar to those planted at Maggia were being considered as part of a national reforestation program in Niger.

In cases of this kind, the appeal and advisability of replication hinge directly on the cost-effectiveness of the pilot efforts. Unless the evidence is fairly convincing, larger donors are certain to be cautious about basing their own projects on PVO models. The findings underline this point, since they did not reveal a consistent pattern of cost-effectiveness in the "prototype" projects studied.

Two projects in Niger which were visited, but not included in the sample, were the Tara Hydro-Agricultural Project, implemented by Africare, and Project *Tapis Vert*, which is being imple-

mented by Strategies for Responsible Development, or Dayton University. The costs of Tara to date exceed $4 million,[1] while the initial phase of *Tapis Vert* cost $60,000 and the second phase is scheduled to cost $500,000.[2] As indicated in Chapter One, they were excluded from the sample because they had not reached the state where evidence of impact could be documented.

The two projects are far more ambitious in scope and in projected results than any of the others covered in this study. They have also required vastly longer gestation periods. The slow pace of implementation is not surprising, since the attempt to integrate numerous different activities within a single project cannot drawn on proven formulas. "Integrated rural development" is an abstraction that rarely finds concrete realization in a specific project. Nonetheless, it is worth asking whether PVOs choosing to operate at this level of complexity do not surrender most or all of their comparative advantage: a strong field orientation, flexibility in responding to local needs and constraints and a focus on "micro-solutions." These qualities are still important

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[1] The Tara project is designed to serve approximately 235 families in an area adjacent to the Niger River in the extreme southern tip of the country. The central component is irrigated rice production on a parcel of 120 hectares. Expenditures have far exceeded original estimates. Africare "inherited" the project after a previous agricultural scheme on the same site had been abandoned. Funding sources have included USAID, the Lilly Endowment and various PVO groups and churches in the U.S. The first crop of rice has not yet been planted, but current plans call for this to happen in early 1979.

[2] The first phase of this project consisted of exploratory research, and was funded under an Accelerated Impact Program grant from USAID/Niger. The second phase, pending Government of Niger approval, will be funded under an Operational Program Grant. The project is situated in an area about 120 km. northeast of Niamey. Its main concern is to develop an environmentally sustainable strategy for the social and economic improvement of the project area.

to the two organizations concerned. But they are increasingly difficult to apply as the scale of activity expands, and expectations -- among both participants and external funding agencies -- grow accordingly.

Hypotheses for Further Study

In the preceding discussion a number of questions were touched on that require further work, through field- or project-level data collection. It is useful to draw out the main hypotheses affecting overall PVO development policy, and to state them clearly, in order to focus attention on critical issues that have not been completely resolved in the present study. These constitute an agenda for debate and discussion, but they should first be tested against an empirical data base. Hopefully the comparative assessment of impact will not terminate with this report, and more understanding will be gained as the data base is broadended.

- Hypothesis I: PVOs are likely to generate an impact that is significantly higher when they concentrate on responding to local needs, than when they define their own priorities for development and "import" them into a project context.

- Hypothesis II: Growth in the scale and complexity of project activities not only generates delays and problems in implementation, but also undercuts the flexibility that PVOs generally regard as one of their greatest assets. The result is a reduction in impact as project complexity increases.

- Hypothesis III: Close regulation, in which PVOs become virtual "contractors" of the host country government, greatly diminishes the prospects for achieving sustained development

impact, unless both parties are equally committed to generating a high level of beneficiary participation.

- Hypothesis IV: "Reproducing" numerous carbon copies of a successful small PVO project is not a realistic option, nor a defensible use of scarce human and material resources. Equally important, it will not produce comparable impact in most of the new settings where it is attempted.

With the methodology already specified, these hypotheses can be tested with an expanded and carefully selected sample of PVO projects in additional countries.

The general thrust of these propositions is cautionary, and deliberately so, to highlight the need for a discriminating approach on the part of policymakers. The data already gathered underscore the need to distinguish between projects, their approaches and their environments, rather than treating PVOs and their respective activities as homogeneous.

RELEVANCE OF COMPARATIVE EVALUATIONS

A major goal of this study is to develop accurate and cost-effective ways to measure PVO impact. As Chapter One pointed out, this involves coming up with a compromise methodology that is more accurate than the "two-week blitz" and less expensive than scientifically sound methods that require the simulation of laboratory conditions. In short, the challenge was to find a methodology that sacrifices some accuracy for a significant savings in

cost. This is necessary to ensure that evaluation costs remain a reasonably small percentage of project/program costs.

With these considerations in mind, DAI developed a methodology to measure PVO impact and to identify its determinants. The methodology that emerged is expensive to implement, both in terms of money costs and the caliber of the evaluation specialists required. At the conclusion of this two-country study, the following parameters of a comparative, cross-project evaluation effort can be specified:

- For field workers already familiar with the methodology, it should be possible to measure impact and its determinants for a sample of 10 PVO projects in a single country, at a cost of between $30,000 and $35,000 (this assumes a team of two experienced data collectors working for 5-6 weeks in the field, aided by a local-hire field assistant, with an additional 2-3 weeks for analysis and writing up).

- For a team new to the methodology used here, an additional commitment of 1½ to 2 person-months would probably be needed, prior to leaving for the field. This would add between $9,000 and $12,000 to the costs of the study.

- Certain economies of scale would be realized if more than one country were included in the evaluation effort (for example, the Niger phase of this study required considerably less than the Kenya phase, even though only one less project was visited).

This information is presented to show what is involved in employing the methodology customized for the scope of work in this study.

Evaluation Needs of PVC

Since "cost-effectiveness" is a relative term, these figures need to be examined in relation to the evaluation needs of AID vis-a-vis the PVO community, and specifically those of the Office of Private and Voluntary Cooperation (PVC). It is assumed that PVC is not interested in intensive evaluation of all PVO projects, and that it is not required. Clearly, the methodology that has bee developed here is too expensive to apply universally. It would need to be applied selectively, with reference to the two primary responsibilities that rest with PVC in the domain of evaluation:

- the need to make overall assessments of the development activities of individual PVOs; and
- the need to develop a knowledge base for programmatic and policy purposes.

Regarding the first requirement, the Agency (and PVC in particular) wishes to establish a partnership relationship with PVOs in implementing the "New Directions Mandate," to which AID itself is held accountable by Congress. PVOs can provide "brokerages" for small-scale development work. Periodically, the sponsoring office must assess the efforts of its brokers. Because development work is necessarily imperfect in the sense that a very limited number of interventions can be regarded as truly successful, PVO activities should be evaluated against the experience of others rather than against some absolute norm. This calls for comparative field assessments in which attention is given to both inter- and intra-PVO project comparisons. Here this methodology has only a limited role to play, since it was designed to compare projects,

rather than organizations per se: it might be useful in assessing differential impact within the inventory of projects undertaken by a particular PVO. There are several U.S.-based PVOs whose worldwide programs are of a scale where this approach might prove valid.

Beyond this, there are PVOs which have undertaken projects of sufficient scope --often funded through an Operational Program Grant (OPG) from the AID missions in an individual country --to warrant a formative evaluation, i.e., an exercise aimed at improving the content of the project itself. An evaluation of this kind can lead to mid-course corrections, and even to redesign. To what extent can the PVOs themselves participate in this process? The evidence from this study indicated that:

- "Auto-evaluation" is a capacity that many PVOs aspire to, and are attempting to institutionalize among their field staff;
- While a healthy degree of candid self-criticism was observed on the part of many organizations whose projects were visited, systematic and diagnostic evaluations were the exception, not the rule;[1]
- The fact that there was no direct correlation between the level of impact and the attention given to monitoring and evaluation procedures, suggested that it may be too soon to look for effects of AID assistance to PVO home offices (through the Development Program Grants) at the field level; and
- As a corollary of the above, the best prospects for instituting formative evaluations of a beneficial nature would seem to rest in a strategy of collaboration between PVOs and the Agency. At least one such evaluation is presently underway with the participation of PVC.[2]

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[1] See the bottom row of Charts 7 and 8, Annex B.

[2] The evaluation concerns the worldwide program of the Institute of Cultural Affairs (ICA).

PVC also has summative evaluation responsibilities that stem from program and policy needs. AID should provide PVO impact information to various groups within the Executive Branch as well as to Congress: ideally, this would permit comparative assessments of PVO activities and other development efforts. (An expansion of this study might undertake such broader comparisons.) Internally, AID is continually working to improve old programs and develop new ones. For these purposes cross-project comparisons, based on a broad sample of projects, are indispensable. They should provide not only impact data, but also a determination of why some projects succeeded while others failed.

For a host of reasons, it is impossible to define a statistically representative sample of PVO projects in one or even a few countries, much less arrange to evaluate the full sample. Instead, a second-best strategy must be adopted: as it becomes possible to evaluate projects on a comparative basis, the data collected can serve as an accumulating base for further evaluation and analysis. This means, among other things, that the data to be collected must be defined in a rigorous manner. If this is not done, every study would necessarily have to start afresh.

Safeguarding Accuracy

The question can be raised whether it is possible, if a randomized, experimental research methodology is not employed, to attribute causality for particular events or changes to the project itself. The answer is that in the absence of "laboratory-

like conditions for experimentation" there is a risk of serious mistakes in attribution. In these circumstances, the best safeguard is to choose as evaluators persons:

- With training in evaluation techniques;
- With experience in collecting field data in developing nations over extended periods of time; and
- Without any likely project bias.

Beyond sampling and evaluator considerations, there are two critical components to the evaluation methodology chosen; namely, the conceptual framework and the data collection strategy. The conceptual frame must be tailored to the questions being addresse Ultimately, AID wants to know what impact PVO projects are having and the causes of differential performance. This means that the conceptual frame should specify collection of data on possible impact determinants as well as data on impact itself. It must also describe the types of analysis to be performed, in such a way that the real (as opposed to potential) determinants) of proj ect impact can be identified.

If these criteria are followed, there are real chances for streamlining the data collection effort. This involves resisting the temptation to collect all possible data, and limiting collection to success measures and a short list of the most probable determinants. Further efficiency is achieved if the list of determinants concentrates on factors that AID and/or the PVOs have some possibility of affecting through program or policy deci

sions. Purists will argue that such a limitation means critical factors are not controlled for, with the result that the explanatory model cannot be trusted. This risk has to be conceded. However, it must be recognized that one has to gamble away some certainty in hopes of finding an evaluation methodology that the Agency can afford to use fairly widely.

The same considerations apply to evaluation needs and strategies for AID-supported projects and programs in general. In other words, the trade-offs identified in the use of this methodology to examine PVO impact are likely to arise whenever comparative evaluations are undertaken. The methodology itself has evolved, and will certainly continue to do so if it is put to further use. It is not a final, standardized "product" in its present form. The data collection document in Annex C, for example, must be used flexibly to avoid enormous gaps in the information that is gathered. A mechanistic approach is inappropriate for data collection on PVOs, but it would be equally dangerous if applied to projects carried out by other agencies.

In conceptual and analytical terms, therefore, a "unique" approach is not required for PVO impact evaluation. Sensitivity and cross-cultural insights at the field level provide insurance against superficial or incomplete data, but these skills are essential to sound evaluation work in all areas of development activity.

1. BUSHIANGALA *HARAMBEE* WATER PROJECT

Sponsoring Organizations:

NOVIB (Netherlands Organization for International Development Cooperation), CARE/Kenya

PVO Involvement:

NOVIB made a grant (in two installments) so that water could be pumped from a small stream to a storage tank at a secondary school and from there to four nearby water kiosks. A later CARE grant (which arrived before the second NOVIB installment) supported the extension of the system to two more points. Part of CARE's support came from an Operational Program Grant from USAID/Kenya.

Location:

Part of Shikulu and Shibuname sublocations, Idakho Location, Kakamega District, Western Province.

Size of Area Served:

15 sq. km. (est.)

Estimated (1978) Population of Area:

4,500

Target Population:

Students (600) and staff of a secondary school and approximately 4,500 people living nearby, when all water points are operative.

Date Started:

1973

Total Cost of Project to Date:

$19,000	NOVIB
9,940	CARE
2,668	USAID/Kenya through CARE
7,237	Government of Kenya
5,016	*Harambee* land, labor, materials

Project Objectives:

In Phase One water was provided to a secondary school; in Phase Two, it was supplied to four communal water points within a one km. radius of the school. In Phase Three it is being extended to two additional points, each approximately three km. from the school. The availability of water is expected to save considerable time for women, who would otherwise have to go to the river several times a day.

Status of Activities:

A dam has been constructed on a small stream, and water is pumped about one km. to a 20,000-gallon storage tank at Bushiangala Secondary School. Students and staff draw water from the tank and people living near the school can come for water as well by paying kshs .05 (less than $.01) for each 20-litre tin of water collected. Pipes have been laid from the tank to the four water points included in Phase Two. Water kiosks will soon be built at these points and water will be sold. Two more tanks of 10,000 gallons each will be constructed at a primary school and at a market to complete Phase Three. Due to inflation, money still in hand from the second NOVIB installment ($6,800) may not cover the costs of erecting both tanks. Committee members estimate another $2,000 to $3,000 is needed, and CARE has indicated it would consider a request for this assistance.

Dates of Field Visits:

June 20, July 14-16, 1978 (seven person-days)

Data Sources:

Chairman and members of Bushiangala "Action Group"; chairman of water, clinic and village polytechnic committees; chairman of nursery school committee; headmaster of secondary school; chairman of cooperative committee; interviews with people who are now getting water from the school tank and with those who will get water from water kiosks when the project is completed; project documentation; CARE records.

Sponsoring Organizations:

Misereor, Deutsche Welthungerhilfe, E.Z.E. (West Germany); NOVIB, Bishops' Lenten Campaign (Netherlands); CAFOD (U.K.); Canadian Hunger Foundation, Freedom From Hunger (Australia); American Hunger Foundation, CARE/Kenya.

PVO Involvement:

Grants have been made by participating PVOs for the purchase of materials and equipment, and for technical assistance for the construction of a system that brings water from a forest stream by gravity flow to individual household standpipes. These grants are intended to supplement an ongoing *Harambee* campaign, which raises funds from each household desiring its own standpipe.

Location:

Kandara Division, Murang'a District, Central Province.

Size of Area Served:

416 sq. km.

Estimated (1978) Population of Area:

164,150

Target Population:

Every household in the division: estimated 30,000 households by projected completion of entire system in 1980/81.

Date Started:

1972

Total Cost of Project to Date:

$3,094,913	Total PVO contributions
774,744	Government of Kenya
1,905,428	*Harambee* cash and labor
$5,775,085	Total

Project Objectives:

The project is to provide piped water to all homes in Kandara Division by tapping a stream in the Aberdare Forest at an altitude of 7,600 feet and bringing water by gravity flow to households as low as 4,500 feet. Total costs of the project are now estimated at $10.3 million. Of the remainder to be raised, the project committee hopes that the Kenya Government may finance the cost of a water treatment plant (about $1 million).

Status of Activities:

A dam has been built on the Thika River and intake pipes have been installed. The water is brought to lower altitudes by two main pipes, the pressure being controlled by installing storage tanks at each 300-foot drop in altitude. Secondary (branch) lines extend from the main line and provide water to communal standpipes at public places such as markets, schools and cattle dips. These main and branch lines are now installed in four of the five locations in the division. The labor used in digging trenches for the pipes is provided through *Haramabee* (self-help) groups whose activities are controlled by water committees formed at the sublocation level and below. Pipes to individual homes have been installed in parts of four locations. Labor for laying the pipes from the branch line to the home is the responsibility of the homeowner. In no location do all homes have water, however. In order to get an individual standpipe, a family is asked to pay a fee to the project equivalent to about $66. Early in 1978 the trust committee, which has overall responsibility for the scheme, decided that the fee would have to be raised to $157 to compensate for inflation, assuming that the local proportion of total project costs remains constant. As of July 1978, approximately 6,000 homes have been supplied with standpipes, and cash contributions valued at $362,750 have been received.

Dates of Field Visits:

July 18-20, 1978 (nine person-days)

Data Sources:

Chairman of Kandara Trust Commitee; manager of water scheme; members of three water committees; individual farmers (especially women) in areas that now receive water and in areas that do not yet have water; chiefs and assistant chiefs; German Volunteer Service water engineers; Nairobi accountant for Water Scheme; annual financial reports.

3. KATOTHYA *HARAMBEE* WATER PROJECT

Sponsoring Organization:

CARE/Kenya

PVO Involvement:

A CARE grant provided materials and equipment for the completion of a rock catchment dam, and for pipes and the construction of a storage tank.

Location:

Part of Kawelu sublocation, Ikanga-Mutomo Location, Kitui District, Eastern Province; also part of Kivyuni sublocation, Kanziko Location.

Size of Area Served:

Approximately 120 sq. km.

Estimated (1978) Total Population in Area:

2,400

Target Population:

All people within the area (400 households)

Date Started:

1972

Total Cost of Project to Date:

$ 3,875	CARE
500	Catholic Diocese of Kitui
7,318	Government of Kenya
4,725	*Harambee* cash and labor
$16,418	Total

Project Objectives:

The project involves the construction of a rock catchment on top of a hill and piping the water to a storage tank below. A second phase of the project would pipe the water from this tank to the site of a primary school about 1½ km. from the storage tank.

Status of Activities:

The rock catchment is complete and the water is piped to a temporary storage tank at the base of the hill. Women are drawing water from this tank. The tank is refilled several times a day under the supervision of a community resident who has volunteered for this task. A covered storage tank is to be constructed. Community members are also using the water to make bricks for the new primary school, 1½ km. away. It is estimated that the maximum area served would be about 120 sq. km. during the dry season, when no other permanent water sources are available, and approximately half that area during about six months when seasonal springs and streams supply water in some areas.

Dates of Visit:

June 23, 24, 27, 1978 (five person-days)

Data Sources:

Members of Kathothya Water Committee; community members; assistant chief; Community Development Assistant; district officer (Mutomo); CARE staff; CARE documentation.

4. KATYETHOKA *HARAMBEE* WATER PROJECT

Sponsoring Organization:

CARE/Kenya

PVO Involvement:

In 1977 CARE provided a grant for cement and pipes to complete a rock catchment dam to bring the water to the base of the hill.

Location:

Part of Kivyuni Sublocation, Kanziko Location, Kitui District, Eastern Province.

Size of Area Served:

Approximately 120 sq. km.

Estimated (1978) Total Population in Area:

2,400

Target Population:

All people within this area (400 households)

Date Started:

1975

Total Cost of Project to Date:

$ 4,105	CARE
500	Catholic Diocese of Kitui
7,749	Government of Kenya
5,295	*Harambee* cash and labor
$17,649	Total

Project Objectives:

The project is concerned with the construction of a rock catchment dam at the top of a hill, and the installation of pipes to bring the water to the base of the hill so that it may be drawn by people living in the area. It is also planned to pipe the water to storage tanks (not yet constructed) at a nearby school and market.

Status of Activities:

The rock catchment has been built, and some women climb the hill to draw water there. There are plans to raise the height of this dam in order to increase its holding capacity. Some pipes and cement have been delivered but more supplies are needed before work can be started on bringing the water to the bottom of the hill. Although no firm estimate has been made of their additional costs, they appear to be in the range of $3,000 to $5,000. The *Harambee* labor turnout averaged 131 persons on two days a week for five months in 1977. Work was in progress on June 23 and about 45 people were in attendance, 75 percent of them women.

Dates of Field Visit:

June 23, 24, 27, 1978 (five person-days)

Data Sources:

Assistant chief of Kivyuni sublocation; members of water project committee; men and women participating in voluntary labor at project site; potential water users at Katyethoka market; divisional Community Development Assistant; CARE staff; CARE documentation.

5. INTERCHURCH EED PROJECT
(Ukambani Integrated Rura Development Project)

Sponsoring Organizations:

OXFAM, National Christian C uncil of Kenya, Catholic Secretariat, Salvation Army.

PVO Involvement:

OXFAM has made two grants to the project to meet the cost of equipment and supplies. NCCK, the Catholic Secretariat, and the Salvation Army perform coordinating and advisory roles.

Location:

Kitui and Machakos Districts, Eastern Province. (This report is concerned with the operations of the project in Kitui District only.)

Size of Area Served:

31,099 sq. km.

Estimated (1978) Total Population in Area:

447,485

Target Population:

Principally the members of Catholic and Protestant churches in Kitui District, but non-church members are also welcome to participate. Estimated 83,000 church members in the district.

Date Started:

1975

Total Cost of Project to Date:

$15,384	OXFAM
2,300	Government of Kenya
$17,684	Total

Project Objectives:

The project was originally established in response to the drought that affected Kitui and Machakos Districts between 1973 and 1976. The idea was to grow and distribute drought-resistant seeds of both local and imported varieties of millet, sorghum, and legumes. To do this, demonstration plots were begun by various churches in the district, and seeds were provided by the project. The harvest was then distributed to participating members to plant in the following season. With the end of the drought in 1977, the emphasis of the project changed to using the documentation plots as teaching devices for the introduction of recommended agricultural practices, such as terracing, planting in lines, use of manure, and early planting.

Status of Activities:

By March 1978 groups at 98 churches in Kitui District were participating in the project. The number of participants at each church averages between 20 and 30. In most cases the churches have given a plot, usually about an acre, for the project. The Ministry of Agriculture has seconded an officer who supervises the project. Seeds are distributed to the group and the supervisor visits each plot to assess progress and to ascertain whether the recommended practices are being followed. Hoes and shovels are given to the groups for use on the demonstration plot and on their own farms, where members are encouraged to help in the terracing of one other's fields. At the end of each season, ox-plows are given to the five groups with the best plots. Before planting, two representatives of each group attend a week-long course in Kitui, where they are instructed in some of the techniques that are to be practiced on the demonstration plot. (In August 1978 these courses were to be decentralized and held at divisional centers.) Project activities are coordinated in Nairobi by a committee that includes representatives of NCCK, the Catholic Secretariat, OXFAM and an agricultural advisor from the Salvation Army. At the district level a committee includes representatives from the Catholic Diocese of Kitui and a Protestant Church Advisory Council, formed as a result of this project.

Dates of Field Visit:

June 24, 27-29, 1978 (eight person-days)

Data Sources:

Catholic Diocese (Kitui) Development Coordinator; members of Protestant Church Advisory Council; agricultural field officer; Salvation Army agricultural advisor; visits to seven church demonstration plots and discussions with their members and church leaders; project documentation; NCCK reports.

6. DIOCESE OF MASENO SOUTH RURAL DEVELOPMENT PROGRAM

ponsoring Organizations:

Evangelische Zentralstelle für Entwichlungshilfe (Protestant Central Committee, West Germany); National Christian Council of Kenya.

VO Involvement:

A grant was provided by E.Z.E. to the Anglican Diocese of Maseno South for the establishment and operation of a rural development program to be run through the churches of the diocese; NCCK served a liaison function in helping the diocese to obtain the grant.

Location:

The diocese covers all of Nyanza Province, and Kericho District in Rift Valley Province.

Size of Area Served:

17,576 sq. km.

Estimated (1978) Total Population in Area:

3,677,000

Target Population:

Estimated 30,000 adult members of the Anglican church in Maseno South Diocese (400 places of worship with an average membership of 75). Non-members of these churches are welcome to participate in project-supported activities.

Date Started:

October 1976

Total Cost of Project to Date:

Three-year grant for $219,350 (October 1976 to October 1979). Approximately two-thirds of this amount expended by July 1978

Project Objectives:

The project is intended to establish development committees at the parish and church levels, which will be able to administer small loans to individual farmers, to serve as a focus for the introduction by project staff of new crops and farming methods, and to manage the hiring of a tractor that belongs to the project. It also supports health fellow-

ship groups at the church level, which are eligible for loans from the project to purchase simple medicines that can be resold to group members and others in the community at economical prices. The health groups also meet with project health personnel (a nurse and nutritionist) to discuss local health problems and formulate solutions. The project is organized so that activities in both agricultural development and health can be formulated and managed at the community level, and so that funds available for both loans and expertise can be decentralized as much as possible.

Status of Activities:

The project currently has a staff of four: development coordinator, agriculturalist, nurse, and nutritionist. There are 69 development committees in 17 of the 29 parishe in the diocese. The majority of loans offered through thes committees have been used for the purchase of packets of hybrid maize seed, but loans have also been used for other types of seed, fertilizer and plowing services, or the initiation of projects such as poultry-keeping and the use of groundnut shellers. The development committees of a few churches have established goals for their members, which include such things as tree planting and kitchen gardens. The tractor has recently been purchased and has been used on a hire basis in one parish.

Health fellowship groups have also been established in 60 churches. They have been given loans to purchase medicines (through the project), which the "health secretaries," who have received training from the project nurse, sell to community members. The proceeds are then used for the purchas of more medicines. These groups are visited approximately once in two months by the project nurse and nutritionist, who discuss health problems with them. In four of these groups a monthly clinic has been instituted where the nurse and nutritionist visit, deliver lectures on health and nutrition, treat patients, and vaccinate children (with vaccines provided by the Ministry of Health).

Dates of Field Visit:

July 7-8, 10-11, 1978 (eight person-days)

Data Sources:

Discussion with project staff; visits to three churches and discussions with development committees and participating farmers; visit to one monthly clinic and discussions with health secretary; records of loans to development committees; other project documents; discussions with NCCK officials, Nairobi.

7. KYUSO AGRICULTURAL IMPROVEMENT SCHEME

Sponsoring Organizations:

Catholic Relief Services, OXFAM.

PVO Involvement:

CRS and OXFAM have both made loans to the project for the purchase of ox-plows, which are resold to local farmers. CRS has also given a grant for the purchase of a tractor.

Location:

Kyuso Division, Kitui District, Eastern Province.

Size of Area Served:

7,032 sq. km.

Estimated (1978) Total Population in Area:

71,542

Target Population:

All farmers in the division (approximately 12,000 households)

Date Started:

1975

Total Cost of Project to Date:

$23,600	CRS
2,564	OXFAM
1,200	(approx.) Catholic Diocese of Kitui
3,000	(approx.) Government of Kenya
$30,364	

Project Objectives:

The project was established to provide ox-plows to farmers at low cost and to provide a tractor plowing service. There is no other local source for either purchasing plows or hiring a tractor. It is hoped that farmers will plow their land with the tractor once every three or four seasons and will use ox-plows for preparing their fields at other times. This will allow them to plant earlier and to cultivate a larger area. Ox-drawn inter-row cultivators will also be

made available on a hire-purchase basis. Although the project is currently based at the Kyuso Catholic Mission, it works through the administrative structure (i.e., throug chiefs and assistant chiefs in the locations) rather than through church groups. This policy was adopted in order to maximize participation in the scheme.

Status of Activities:

To date 440 farmers have purchased ox plows through the scheme. Approximately 700 farmers have hired the tractor to plow an average of two acres each. The project is run by the priest at the Kyuso mission. A tractor committee decides on the scheduling of the tractor; two cooperatives are being formed at the locational level, and it is planned to regulate tractor use by restricting it to cooperative members. An agricultural officer has been seconded to the project by the government to supervise tractor plowing. A proposal was submitted to CRS in late 1977 for an additional $37,000 to purchase a second tractor; final approval is expected shortly.

Dates of Field Visit:

June 30 - July 2, 1978 (nine person-days).

Date Sources:

Fr. Nicolas Hennity, Kyuso Mission; members of tractor committee; local farmers at Kyuso and in Tseikuru and Mivukoni locations; chiefs and assistant chiefs; project proposal submitted to CRS; loan repayment records.

8. RURAL ENTERPRISE EXTENSION SERVICE (REES) AND RURAL LOAN SCHEME (RMLS)

Sponsoring Organization:

Partnership for Productivity Service Foundation, which is in turn supported by USAID/Kenya, PACT (Private Agencies Collaborating Together), United Methodist Committee for Overseas Relief, National Christian Council of Kenya.

PVO Involvement:

PFP is a voluntary agency registered in Kenya. All of its operating costs are met through grants from overseas sources Currently an Operational Program Grant from USAID/Kenya covers 71 percent of the program costs, and a PACT grant covers 23 percent.

Location:

Western Province; recently expanded to Nandi District, Rift Valley Province, and Siaya District, Nyanza Province.

Size of Area Served:

8,296 sq. km. (Western Province)

Estimated (1978) Total Population in Area:

1,870,000

Target Population:

Approximately 7,650 licensed businesses in Western Province, almost all of very small scale. As of April 1978 REES field staff were assigned to "sectors" within the Province with a total "pool" of approximately 3,120 licensed small enterprises.

Date Started:

PFP began operations in Kenya in November 1970. The major current activities covered in this report (REES and RMLS) began in early 1974.

Total Cost of Project to Date:

Total expenses of the PFP program in Kenya between 1970 and early 1974 (which laid the groundwork for both REES and RMLS) were approximately $200,000. A portion of this was met from USAID/Kenya grants, and the remainder from voluntary contributions.

$460,500 Estimated total costs since the start-up of REES and RMLS in April 1974

Sources include:

$ 73,000	PACT grant (1975-77)
$ 52,000	PACT grant through 3/79
$300,000	USAID/Kenya OPG

Project Objectives:

These two components of the PFP/Kenya program were formally constituted in 1974:

(a) A Rural Enterprise Extension Service (REES), which supplies management training and advice to small-scale businesspersons. REES consultants, each assigned to work with 20-30 clients, provide instruction in financial record-keeping, inventory control, and related practices, in order to improve the profitability of client enterprises.

(b) The Rural Market Loan Scheme (RMLS) is designed to provide businesspersons who would not otherwise qualify for commercial loans (due to lack of collateral, insufficient size of business, or both) with experience in utilizing credit. The RMLS established revolving loan funds in seven market centers. In each case a market committee was charged with responsibility for selecting loan recipients and collecting repayments. Total capitalization for the RMLS was only $6,450. These funds were to circulate within the participating markets, with interest of nine percent per annum being paid to PFP's loan arm, West Kenya Productivity Investments Ltd. (WKPI). Complementarity of REES and RMLS was emphasized with the requirement (instituted in 1976) that all recipients must be REES clients.

Status of Activities:

(a) As of mid-1978 the REES component had 17 consultants working directly with approximately 370 active clients. An additional 401 clients had received some REES training during the past four years but were no longer active. PFP plans to extend the REES program to other provinces, gradually moving to a national program if adequate funding can be secured.

(b) The RMLS component is currently active in only two markets. The scheme has been closed down at four other markets and temporarily suspended at a seventh, due to defaults and/or arrears in repayment. Overall, only 13 of 334 RMLS loans made since 1974 are still in arrears; however, 14.5 percent of the RMLS capital is in arrears, and misappropriations at one market diverted an additional 13 percent (half of which as since been recovered). WKPI's shortage of funds has precluded expansion of the RMLS to new markets. A proposal for substantial additional funding for the RMLS is currently being prepared.

Dates of Field Visit:

June 20, July 12-14, 1978 (ten person-days)

Data Sources:

Interviews with senior PFP staff; eight REES consultants and two supervisors; 30 active REES clients; REES files on 60 active clients; 10 businesspersons not receiving REES service; members of two RMLS market committees; 10 loan recipients, quarterly data spread sheets on REES and RMLS for period 1976-1978.

9 KAWANGWARE HUMAN DEVELOPMENT PROJECT

Sponsoring Organization:

Institute of Cultural Affairs

PVO Involvement:

Late in 1975, after extensive consideration of possible sites for a pilot project in Kenya, ICA chose Kawangware and conducted a consultation to establish the project. They provided staff who set up the various activities within the community, and worked to raise funding and material support from local businesses and voluntary organizations.

Location:

Kawangware, Nairobi.

Size of Area Served:

12 sq. km. (estimated)

Estimated (1978) Total Population in Area:

20,000

Target Population:

All residents of Kawangware.

Date Started:

November 1975

Total Cost of Project to Date:

$133,077 (estimated by ICA, all in contributions by various private donors, mainly in Kenya)

Project Objectives:

The project is based on the outskirts of Nairobi, in an area where a high proportion of the population are recent migrants to the city, where unemployment is very high and where basic services are very inadequate. The project aims to change the life of the community radically by creating new sources of income and employment, providing education and training to large sectors of the population, establishing a number of community services and developing organizational capabilities within the community to sustain these various efforts.

Status of Activities:

A resident staff of expatriates and Kenyans has established several programs at Kawangware. Six acres of land have been put under intensive cultivation for export crops, principally green beans, giving employment to 30 people. A handicraft cooperative has been established, employing 25 women on a steady basis making banana fiber baskets for export. A construction industry is experimenting with manufacturing bricks from murram soil and concrete, for use in erecting low-cost housing; this provides employment for about 15 men. A sewing workshop has been established in which about 20 women currently receive training.

The project has also been able to get funds and equipment to help the expansion of a local metalwork industry. A business association has been formed, which includes about 40 small shopkeepers as its members; they have begun to buy maize meal in bulk from wholesalers at Nairobi. A Public Works Corps was formed as a training program for about 40 young men: most of the ex-trainees are now working in the construction and farming programs. A Public Youth Corps for youngsters between 12 and 18 years of age has about 50 members.

Four schools have been established at the nursery and primary levels, employing 15 teachers serving a total of about 800 pupils. Thirty-five volunteer "health caretakers" have been trained to each visit about 20 homes per week and provide rudimentary health care and instruction; participating homes have been given identification cards that can be used at a nearby government clinic. Workers in the farming, construction and handicraft projects, and schoolteachers are paid about $25 per month, salaries which are below those paid for equivalent work in non-project industries and schools.

A cooperative society has been formed to take over the management of all income-generating activities within the project. To date there are 300 members who have purchased shares worth $2,195. A loan of $22,000 is being sought from the Cooperative Bank of Kenya.

Dates of Field Visits:

June 14, July 5-7, 1978 (11 person-days)

Data Sources:

Interviews with ICA staff; chairman of Kawangware cooperative society; agricultural coordinator; mason for construction industry; head of handicraft cooperative; owner of metalwork shop; teachers at project primary school; members of farming groups and women's handicraft group; community residents not directly involved with the ICA project; financial records (where available).

10. CDARMA (CENTER FOR DEVELOPMENT OF RURAL ARTISANRY AND AGRICULTURAL MACHINERY)

Sponsoring Organization:

Euro Action-Acord (EAA), a consortium of PVOs based in Western Europe. EAA identifies and implements projects which are funded by one or more of its members.

PVO Involvement:

The project was identified by an EAA representative who visited Niger in 1975 and examined several projects for possible EAA funding, at the request of the Nigerien Government. EAA furnished a grant to pay operating expenses of the rural artisanry center at Dosso in 1976. A full project, consisting of EAA funding for a two-year period and the placement of an expatriate project manager, began in early 1977.

Location:

The project is based at Dosso, a departmental headquarters about 140 km. southeast of Niamey. It is currently being decentralized and three workshops of intermediate scale are being established in small towns.

Size of Area Served:

35,000 sq. km.

Estimated (1978) Population of Area:

650,000

Target Population:

Most directly, the project has focused on retraining and technical support for a fairly small number of traditional blacksmiths from the rural areas of Dosso Department (39 to date). In a broader sense, however, the beneficiaries from improvements in the blacksmiths' production capabilities will be the entire population, which will have better access to animal traction equipment.

Date Started:

Retraining of village blacksmiths originally began about 1971 in a now-defunct FAO project. EAA support began in 1976, with full project initiated in 1977.

Total Cost of Project to Date:

$327,300	(approximately) EAA support, including technical assistance
90,910	loan from EAA for operating capital
25,000	Government of Niger contribution
$443,210	Total

Project Objectives:

The project was originally intended to upgrade the skills of traditional blacksmiths and to provide them with periodic retraining and refresher courses. Emphasis was placed on the production and repair of animal traction equipment, for which a large and unsatisfied demand exists in the rural areas of southern Niger. In a previous FAO-supported project, 21 blacksmiths had received some training of this type, and the project began by locating and retraining them. Since 1977, the project has sought to gradually expand the pool of trained blacksmiths, relying on each participant to transfer skills to an apprentice in accordance with tradition. Particular emphasis is now being given to the establishment of decentralized workshops in smaller towns, where teams of blacksmiths (usually six at a time) would produce ox- and donkey-carts, and eventually other implements as well. One is scheduled to be built at Tara, where Africare is implementing a major integrated development project based on irrigated rice cultivation.

Status of Activities:

There are now 39 blacksmiths, each with an apprentice, who have received training under the project and are engaged on a part-time basis in producing carts, either at the main Dosso workshop or at Tibiri, the first of the decentralized workships to be established. They are paid on a piece-work basis, and can earn substantial income ($436 each) when a team of six completes a series of 100 carts, generally within a month's time. The remainder of the time, and particularly before and during the rainy season, most of the blacksmiths work out of their individual village workshops, which are scattered throughout Dosso Department, though mainly in the Hausa areas.

All carts produced by the CDARMA project are purchased by the Nigerien cooperative union (UNCC) at a price equivalent to the cost of imported carts from Benin and Senegal. The carts are then sold to farmers at a subsidized price, with cooperative members usually receiving a three-year loan. Under these conditions, CDARMA operates as a financially viable production unit. It requires substantial operating

capital: a portion of its needs for full production are currently met by EAA through its grant for the project and a $90,910 loan. (Nigerien sources, e.g., the agricultural bank, might be tapped as alternatives, though this has not been formally proposed.)

Two outstanding issues concern the failure of the Nigerien government to appoint a project director to take over from the EAA manager, who is due to depart in March 1979; and efforts to organize a cooperative at Tibiri (it had been hoped that the blacksmiths there could assume ownership and management of the entire facility). These issues are due to be explored jointly by EAA and the UNCC.

Dates of Field Visit:

November 16 and 17, 1978 (four person-days)

Date Sources:

Interviews with EAA project manager; blacksmithing instructor; artisans and apprentices at Tibiri rural workshop and at Dosso; UNCC departmental delegate; members of Africare project staff at Tara, and individual cart owners there; former OXFAM/EAA representative, Niamey; project records and documentation.

11. PROJET EMBOUCHE BOVINE À LIBORÉ (Liboré Livestock Fattening Project)

Sponsoring Organization:

Euro Action-Acord (EAA)

PVO Involvement:

EAA has provided technical assistance and money for a revolving fund which provides loans to participants who purchase cattle for fattening. EAA's technical advisor assists the Government of Niger livestock service, which is the implementing agency for the project.

Location:

Liboré region, 30 km. south of Niamey.

Size of Area Served:

The project covers 14 villages in an area of approximately 150 sq. km.

Estimated (1978) Total Population in Area:

5,500

Target Population:

Originally aimed at ten Djerma and four Peul villages in the Liboré locality. In the first year, nine of the Djerma villages participated; the tenth was added in the second year. The Peul village leaders have declined to participate directly in the project.

Date Started:

March 1976

Total Cost of Project to Date:

$130,909	Euro Action-Acord
8,182	Government of Niger
$139,091	Total

Project Objectives:

The project is concerned with improving the quality and quantity of meat production, while providing cash income to small farmers in an area of great land pressure. It is

designed to complement other agricultural activities, by using by-products for cattle feed (e.g., rice bran) and using cattle manure for fields. It is designed to make local participants competent to select, raise, fatten and sell their own cattle and to develop related activities and infrastructure, so those activities may continue after funding stops. Cattle are raised in individuals' courtyards rather than in feedlots.

Status of Activities:

To date 591 farmers have purchased 857 animals through 827 loans, using total credits of $155,764. From the first year loans, 99.9 percent of the total amount has been repaid; and 85 percent of the second year amount has already been repaid with 14.5 percent invested in animals not yet sold. The project has developed a forage program, a fund for purchasing boats (15) and carts (35) for carrying river grasses, fertilizer, etc., and has also purchased a machine that separates rice husks from bran so it can be used as animal feed. Village committees have been established to help select participants wanting loans for their first animals. This program is integrated into the GON livestock service, which is starting a national training program for livestock agents, based on the Liboré model.

Dates of Field Visit:

December 6 and 7, 1978 (two person-days)

Data Sources:

EAA program coordinator; EAA project advisor; GON project director and extension agents; director of GON rice project; chiefs, religious leaders, and members of village committees; groups of farmers; project documentation.

12. MAGGIA VALLEY REFORESTATION PROJECT

Sponsoring Organization:

CARE/Niger

PO Involvement:

Implementation of the project is the responsibility of the Nigerien water and forestry service. The project was planned and proposed by a Nigerien forester and his Peace Corps assistant in late 1974. CARE support covers the purchase of materials and equipment for a tree nursery, running expenses of a vehicle based at Bouza (the nearest administrative headquarters) and salaries for manual laborers employed at the nursery.

Location:

The project is sited in the Maggia Valley, approximately 15 km. west of Bouza, in central Niger.

Size of Area Served:

Windbreaks constructed under the project are designed to protect a cultivated area of 1,000 hectares in a corridor 1 km. wide and 10 km. long.

Estimated (1978) Population of Area:

There are three villages whose residents have fields within the area scheduled for windbreak protection. The total population of the villages is approximately 4,000. However, the Maggia Valley extends for many kilometers southward, and is quite densely populated. Extension of the project beyond present plans could affect another 10,000 people, if not more.

Target Population:

Those households (exact number unknown, but a large majority in the three villages) cultivating fields within the protected area. A rough estimate of two ha./household within the area (and some other land outside) would indicate a total of 500 households affected by the protection of 1,000 ha.

Date Started:

Early 1975

Total Cost of Project to Date:

$145,175	CARE/Niger
35,000	Peace Corps (value of 3½ man-years by volunteers
13,160	Government of Niger (value assigned to counterpa
	contribution in original budget)
$193,335	Total

Project Objectives:

The project is intended to preserve soil fertility and pre vent wind erosion through the planting of windbreaks in a densely settled agricultural area of central Niger. Doubl rows of neem trees are planted at 100 meter intervals: th rows are one km. long, and 10 double rows (containing a total of 5,000 trees) are therefore needed to complete one square kilometer. The area had been almost completely deforested and is subject to extremely strong winds which le to soil erosion and damaged crops, particularly millet and sorghum. The project is scheduled for completion in May-June 1980, when the last series of trees will have been planted. The seedlings are raised at a nursery supervised by a Peace Corps volunteer, and the employees are paid out of CARE project funds. The actual planting of trees depen on community labor; food-for-work rations are distributed by CARE after the planting season is over to all of those (exclusively males) who participated.

Status of Activities:

As of late 1978, the windbreaks already planted will eventually protect a total of 720 ha. The physical benefits of the windbreak are evident by the third year of the trees' growth; the trees planted in 1975 (now four meters high) are performing their intended function. Additional to time of conclusion in mid-1980 will be in the range of $100,000 at present level of expenditure.

To date, no systematic research has been done to quantify the benefits to farmers cultivating protected fields. Recently some concern has been voiced by foresters in Niger regarding the possible effect of neem trees in drying out the soil. CARE itself has recently begun to explore the possibility of monitoring wind speeds, soil moisture and temperatures, and perhaps agricultural yields, in order to better understand the impact of the windbreaks. The project has attracted considerable interest and has been suggested as a model for larger-scale efforts in other parts of the country.

Dates of Field Visit:

November 20 and 21, 1978 (two person-days)

Data Sources:

Interviews with *Eaux et Forêts* (water and forestry service) staff; CARE staff; Peace Corps volunteer attached to project; two groups of Hausa farmers at Guardomé village (where 1975 windbreaks now protect fields); agricultural

13. PROJET D'AMÉNAGEMENT DE LA PLAINE DU TALAK (Talak Plain Development Project)

Sponsoring Organization:

Routes du Monde (Paris); most financial support comes from *Amitié et Promotion Afrique* (Morocco), CARITAS/Niger and French Freedom from Hunger Committee.

PVO Involvement:

Routes du Monde has full responsibility for implementation, and for meeting all costs of the project. The organization supports expatriate volunteer technicians and transmits funds raised from other private and voluntary sources.

Location:

Oued Zilalet *kori* (seasonal river), 75 km. southeast of Arlit, in the Department of Agadès.

Size of Area Served:

Total surface area of the Talak Plain is estimated at 600 sq. km.; potential pasture areas total 120 sq. km.; project affects approximately 20 sq. km.

Estimated (1978) Population of Area:

120 households, or approximately 1,000 people at the southern end of the plain, around Oued Zilalet.

Target Population:

All 120 households in the area directly affected by the project.

Date Started:

November 1975

Total Cost of Project to Date:

$273,000	Project costs over three years
41,000	(approximately) costs of technical assistance
$314,000	Total

Project Objectives:

After a period of severe drought, in which major food distribution efforts were launched, the present project was begun by *Routes du Monde* in late 1975. Its main objective was to facilitate the transition of the local pastoral economy to a self-sustaining basis. An intensive program of dam and dike construction was begun to control the waters of Oued Zilalet, which floods several times each year between July and September. By diverting a portion of the flood, the system would irrigate several hundred hectares of previously barren land, creating relatively rich new pastures and permitting forestation. This would provide stable pastures for the gradually reconstituted herds of the local Tuareg population. In all but the most minor floods, a sufficient volume of water would follow the usual river bed to water other parts of the plain.

Status of Activities:

A dam (*barrage*) of large stones and boulders was constructe by manual labor during the first year of the project, 1976. This succeeded in diverting the waters of the Oued Zilalet and inundating several hundred hectares of the plain. Subsequently three earthwork dikes have been built in a series on the plain: two of these (1,340 m and 1,090 m, respectively) are now complete, and the third is due for completion in 1979. The area inside the dike system covers 439 ha., and an additional 1,000-1,500 ha. are irrigated by waters passing through gaps in the dikes.

The labor force involved in construction has been gradually reduced -- from a peak of about 200 in 1976-77 to about 40 as of late 1978 -- as livestock holdings have grown, allowing Tuareg families to resume their pastoral livelihood. Wages have accounted for approximately half of project expenditures to date. Efforts to develop a local leadership and cooperation within the work force have not been successful. Currently all laborers are paid on an individual piece-work basis, although the work is officially designated as "communal labor," and wages are set accordingly.

Dates of Field Visit:

November 30 - December 2, 1978 (three person-days)

Data Sources:

Interviews with Routes du Monde project director; Tuareg herdsmen and others opening up new oasis gardens; members of crew working on dike; regional planning officials, Agadès project reports.

14. PROJECT OASIS AIR

Sponsoring Organization:

Church World Service (CWS)

PVO Involvement:

CWS initiated an agricultural development project in the area in late 1974, with funding shared on a 50/50 basis with USAID. The second phase of the project (1977-78) has been funded almost entirely by CWS. Government of Niger technicians hold major responsibility for implementation. The CWS project coordinator has concentrated his efforts on road construction and shallow well construction. The latter activity received training support from Lutheran World Relief staff in 1976.

Location:

Eleven villages in the Tabelot area, approximately 120 km. northeast of Agadès.

Size of Area Served:

The 11 villages are located in a very lightly populated area in a radius of about 40 km. from Tabelot.

Estimated (1978) Population in Area:

7,000 of whom slightly less than half are sedentary farmers in the 11 villages that participate in the project.

Target Population:

Principally the sedentary farming households (c. 500 in number) in the 11 villages, but indirect benefits are anticipated for the pastoralists and caravan traders who also inhabit the area.

Date Started:

Phase I began November 1974. Project redesigned for Phase II, which began in January 1977.

Total Cost of Project to Date:

$245,000	Phase I: $125,000 USAID, $120,000 CWS
270,000	Phase II: all CWS
$515,000	Total (approximately $45,000 of Phase II grant undisbursed as of 11/78)

Project Objectives:

The principal objectives of the project are: (1) to improve and sustain agricultural productivity in irrigated gardens which depend on shallow wells; and (2) to develop a viable marketing system for smallholder produce. The first involves a system for supply of agricultural inputs and assistance with shallow well construction (using techniques developed by Lutheran World Relief). Experimentation with measures to combat erosion of *kori* (seasonal river) banks has been supported under a separate USAID (Accelerated Impact Program) grant of $176,500 running from June 1978 to May 1979.

The second objective has been pursued through establishment of four marketing cooperatives embracing the villages served by the project; construction of a new road linking Tabelot with Agadès (120 km. away) as well as secondary roads between project area villages; and initiation of a weekly truck service to carry produce to Agadès.

Status of Activities:

As of November 1978 there were 494 gardens under cultivation; of these, about one-third had been re-opened during the four years since the project began. These gardens produce two crops per year, with millet and maize predominating in the rainy season and wheat in the dry season as food staples, and tomatoes (to be dried) and potatoes as the main cash crops. To date, 61 shallow concrete wells have been constructed, with at least 39 more planned for the 1978-79 dry season.

The Tabelot-Agadès road was completed in March 1978 involving participation by communal labor and paid manual labor on different segments. None of the four cooperatives has proven itself to be financially viable, although each has repaid a significant proportion of loans from the project.

Dates of Field Visit:

November 27-29, 1978 (five person-days)

Data Sources:

CWS staff, Niamey and Agadès; CWS project records and documentation; cooperative society leaders at Tabelot; gardeners at Tabelot, Nabarao and Edaodao villages; government of Niger technicians attached to project; Nigerien project director; regional planning officials, Agadès.

15. SUDAN INTERIOR MISSION RURAL DEVELOPMENT PROGRAM

Sponsoring Organization:

Sudan Interior Mission (SIM)

PVO Involvement:

SIM has provided a small grant to support rural development activities in an area west of Maradi. The activities being promoted are a village woodlot and windbreak program, a hire-purchase scheme for animal traction and other farm implements, and a crop improvement component. A volunteer from the Christian Reform World Relief Committee has been loaned to the project to supervise activities since SIM itself lacks technically trained personnel.

Location:

The sous-préfecture of Guiden Roumji, approx. 35 km. west of Maradi, in south-central Niger.

Size of Area Served:

The project currently serves four non-adjacent villages where people have specifically asked to participate in its activities.

Estimated (1978) Total Population in Area:

10,000

Target Population:

The four villages contain a total of 125 households, or approximately 900 people. The project is open to participation by all of them, on a voluntary basis.

Date Started:

1975

Total Cost of Project to Date:

$18,540 Best estimate of total SIM expenditures; the organization does not keep detailed project records.

Project Objectives:

Sudan Interior Mission staff explained that the rural development program is of secondary importance relative to the organization's commitment to preaching and conversion. The

original conception of the project was to respond to the "felt needs" of village communities as expressed by church leaders (SIM converts) and others. Christians are a very small minority in the area, and the project is not meant to favor them. Participation in project activities is open to everyone. The reforestation component was designed to ensure a future supply of fuel and wood for construction from village woodlots. Planting of windbreaks was also encouraged, on the assumption that these would conserve and probably increase productivity in individuals' millet fields. The animal traction hire-purchase program and the crop improvement component, involving distribution of seeds and fertilizers, were intended to improve local farmers' access to technologies for which there was already a proven demand. In the latter two cases the project attempted to supplement the very limited capacity of the government agricultural service in distribution and supply of inputs to the rural population.

Status of Activities:

The tree planting program started in 1975, with two hectares of neem trees planted in the village of Tambaroua. In 1977 and 1978, the program was extended to three other villages, with the total area planted (using neem and bararua varieties) reaching 6.5 ha. Additional woodlot planting has been proposed for 1979. The animal traction program has involved 45 households, which have rented donkeys and/or cultivators, and peanut planters. To date, villagers have paid in full for two donkeys and three cultivators; the remainder of the animals and equipment is to be purchased in installments over a six-year period. The fertilizer and seed distribution program started in 1978, and with 50 households participating, and is scheduled to be extended in 1979.

Dates of Field Visit:

November 20-22, 1978 (three person-days)

Data Sources:

Interviews with SIM staff at Maradi; project director; project founder (now based at Zinder); local ministers and church committee members; participating farmers; Adjoint-Préfet, Maradi Department; Asst. Director, Project Productivity/Maradi; French volunteers working on related project; SIM financial records and documents.

16. PROJECT TCHIN TABISGINE

Sponsoring Organization:

EIRENE, an organization based in West Germany and supported by church groups in the United States, West Germany, Britain, Switzerland and other European countries. (The full name of the organization, in German, means "International Christian Service for Peace").

PVO Involvement:

EIRENE sponsored a drought relief project at Tchin Tabisgine between April 1974 and July 1976. The main thrust of that project was experimentation in environmental restoration. The current EIRENE-supported project runs until July 1979. The organization provides a Dutch volunteer and funding for activities that include shallow well construction, reconstitution of herds, and cooperative development.

Location:

Tchin Tabisgine valley, about 35 km. north of Agadès, in north central Niger.

Size of Area Served:

The project serves 4 small villages in an area of about 100 sq. km.

Estimated (1978) Total Population in Area:

1,300

Target Population:

All 186 families residing in the 4 villages.

Date Started:

EIRENE-supported activities began in March 1974; the project reviewed here (which has continued some of the previous activities) began in July 1976.

Total Cost of Project to Date:

$ 78,582 EIRENE grant for 1974-76 project

$200,000 EIRENE grant for present project, of which only $117,551 spent as of 11/78.

Project Objectives:

The project is intended to help establish a viable livelihood for the population of the Tchin Tabisgine area, almost all of whom settled there during and after the severe drough of the early 1970s. They were drawn there by food-for-work employment opportunities, and had lost virtually all of the livestock in the drought. The project introduced several activities that were new to the area and to the population irrigated gardening using shallow wells, simple concrete well construction, and the use of draft oxen to lift water from the wells for irrigation. Another objective was to aid in reconstituting goat and sheep herds and re-establishing pasture. Also envisioned was the formation of a local marketing cooperative, the training of village health workers and literacy teachers, and the encouragement of greater involvement by government services in the area.

Status of Activities:

The oasis gardening program at Tchin Tabisgine consists of 68 gardens now in operation, 23 of which are served by shallow concrete wells (cement provided free by the project and the remainder by earth- and timber-lined wells. There are 72 draft oxen in use -- some distributed in the earlie EIRENE project -- which were provided to gardeners at a 75 percent subsidy. The project has also distributed small herds (18 goats and sheep) to 108 families, with the requir ment that six offspring from each herd be returned to the Government of Niger livestock service. A majority of these 108 families are now concentrating on herding activities, and have not participated in the gardening program.

An experimental reforestation program has been concluded. The results were only partially satisfactory, and no count has been made of the surviving trees. Other experiments with runoff gardening were acknowledged to have failed. Leadership of the cooperative has not yet taken a stable form: there are three village-level groups, each of which elects one representative to the cooperative committee. The marketing of garden produce does not depend heavily on the cooperative, however, since the principal item sold is dried tomatoes, which are easily stored and can be transported by camel, and Agadès is only 35 km. away.

Thus far there has been only a slight increase in the level of government services in the Tchin Tabisgine area. GON technicians have not been closely involved with project activities, leaving these to the EIRENE volunteer and to the extensionist on site, who is paid directly by the project. Currently the GON is examining the results of the project in order to determine what activities should continue after EIRENE support terminates in July 1979.

Dates of Field Visit:

November 25, 29 and 30, 1978 (three person-days)

Data Sources:

Interviews with project coordinator and treasurer; Dutch field technician (volunteer); Nigerien extension agent; operator of cooperative store and members of cooperative management committee; village health worker; individual gardeners and groups; GON regional planning officials for Agadès Department; EIRENE project records and documentation.

17. TELEMCES AREA PROJECT

Sponsoring Organization:

Lutheran World Relief (LWR)

PVO Involvement:

LWR staff developed the project design in 1976, in collaboration with Nigerien agricultural service personnel, who now have full responsibility for implementation. LWR provided training assistance in shallow well construction, and now has committed funds for the full three-year budget of the project.

Location:

Four villages (others may be added later) in the Gambam-Telemces area north of Tahoua, in Tchin Tabaraden *arrondissement*.

Size of Area Served:

The area is lightly populated, and the four participating villages of sedentary farmers are as much as 60 km. apart.

Estimated (1978) Population in Area:

5,000, of whom slightly more than half are sedentary farmers (mainly recent Hausa immigrants) and the remainder nomadic or semi-nomadic pastoralists.

Target Population:

The entire population of the area, including both sedentary farmers and pastoralists.

Date Started:

Implementation formally began in February 1978, but LWR staff were actively involved at Telemces village since 1976, especially with shallow well construction.

Total Cost of Project to Date:

$ 18,200 spent as of November 1978
($139,545 committed by LWR for period 2/78 - 1/81)

Project Objectives:

The project has three interrelated objectives: (1) to increase the capacity of the local population to meet their own food needs and earn cash incomes, through the promotion

of gardening; (2) to develop water resources, by assisting with the construction of shallow concrete wells and animal watering troughs on a basis that serves the needs of both farmers and herders; and (3) to reduce the isolation of the area through improvement of the existing road network and the encouragement of greater coverage by government services.

Status of Activities:

The project has only been formally underway since February 1978 due to delays in securing approval from the government. However, the oasis gardening component has experienced a rapid takeoff. There were 153 gardens as of November 1978 although only 50 were planned for the first year of the project. Of these, 120 were new gardens. The mean surface area was 0.5 ha., although the area actually under cultivation was considerably smaller, and the main crops destined for sale were (dried) tomatoes, cowpeas and sweet potatoes. Seven shallow concrete wells had been completed at Telemces, with several others under construction. About 20 wells are planned for Arekem village. At Gaoey and Gambam gardening depends on *mares* (seasonal lakes) and no wells are needed. No work had yet begun on the road construction component of the project.

Dates of Field Visit:

November 23-24, 1978 (four person-days)

Data Sources:

LWR staff; LWR project records and documentation; GON project director, agricultural technicians and project extensionists; participating farmers at Telemces and Gambam villages; traders at Takanamet market.

ART B-1

IS FOR CALCULATING DIRECT BENEFITS: KENYA PROJECTS

	BUSHIANGALA	KANDARA	KATOTHYA	KATYETHOKA
IEFITS IN KIND	Supply of water at school and communal points will save time for women who must otherwise go to river; will improve standards of health and cleanliness.	Supply of water to individual households will save time for women and will have direct benefit for farm activities, e.g., coffee spraying, dairy cows. Also major positive impact on health, cleanliness.	Project provides water at more accessible point to households in immediate radius, throughout year; during dry season it will attract additional users. This will save time and will also ensure a daily supply of water in a drought-prone area.	Essentially the same as for Katothya (the two are in neighboring sublocations).
IETIZED BENEFITS: ITICAL ASSUMPTIONS	• Availability of water at communal points saves an average of two hours per day for 750 households = 92 days per year. • Local wage = $0.75 per day. • Time saved is an aid to both cash crop and subsistence production. • Volume of water use per household increases; "time saved" includes time that would be needed to collect additional water from river. • Calculations assume that project will be completed this year (1978).	• Availability of water at home saves four hours per day per household = 183 days/year, for those with individual standpipes. • Communal standpipes save two hours per day per household = 91 days/year. • Local wage = $1/day. • Labor is scarce and time saved pays off in income-producing farm activities. • Volume of water use per household rises significantly; "time saved" includes the time that would be needed to collect additional water from river.	• Availability of water saves one hour per day for 200 households all year long; saves two hours per day for additional 200 households for dry season (half year). • Average saving = 46 days/year. • Local wage = $0.50 per day. • Time saved is an aid to subsistence production in labor-scarce economy. • Also assume that local factional quarrel about rights to use water will be resolved.	Same as at Katothya. Because project is incomplete, direct benefits not yet enjoyed by 75 percent of target population. Calculations here assume completion in 1978.
RTICIPATION IN JECT SERVICES	Secondary school now has access to water. Surrounding area to be served is @ 15 km^2, with 4,500 people, = 750 households.	Assume that at completion, 20,000 households benefit from individual standpipes, and 10,000 from communal standpipes. (At present, 6,000 individual and 12,000 communal users.)	Area has population density of 20/km^2. maximum area now (dry season) = 120 km^2. Population of 2,400 = 400 households.	Same population density and comparable area to be served as at Katothya.

INTERCHURCH	MASENO SOUTH	KYUSO	REES/RMLS	KAWANGWARE
Improved agricultural practices will lead to gain in yield of main food crops per unit of land. Practices include terracing, row planting, manuring and early planting.	• Formation of development committees allows access to agricultural inputs and medicines which are otherwise difficult to obtain; the agriculture inputs will improve yields. • Tractor hire service begun recently; should improve yields but no results yet available.	• Use of ox-plows will allow expansion of cultivated area and will improve crop yields per acre. • Tractor plowing once in 3 or 4 seasons will lead to higher yields and will facilitate ox plow tillage in intervening seasons.	• REES: improved financial recordkeeping will lead to increases in client profitability. • RMLS: loan capital will aid expansion of client enterprises, and credit education will improve access to conventional sources of credit.	• Training for young adults leading to productive employment in agriculture, industries. • Out-of-school children gain access to education through programs run by project.
• Assume one-third of participants adopt practices and apply to two acres/year of maize. Net yield increase of three bags @ $10.32/bag. • Therefore assume 33 percent probability that individual participants will receive $31 benefit/year. The average benefit will then be $10.32.	• For agricultural inputs, assume use of hybrid maize seed improves yield by two bags/acre ($21). Average loan is for one bag of seed, enough to plant one acre. If loan repaid, net gain is $16. • 50 percent saving on medicines purchased through health groups, but volume of sales not shown in project records. • Monetized benefits therefore apply only to agricultural inputs for maize production.	• Plow purchasers cultivate two additional acres/season = four/year, yielding $130, plus improved yield on "old" land valued at $49/year. • Oxplow costs $45; assume it lasts five years, so cost to farmer is $9/year. • Yield estimates very conservative: maize three bags/acre/season, green grams 2½ bags. • Tractor hired once every four seasons will increase yield per acre per year by $43, less tractor hire charges $5.80. Assume tractor plows two acres for each farmer. • Ox-plow benefits average $170/year, tractor $74/year.	• REES records show net profit increases for 49 clients with good records: deflated 15% per year, gain = $562/year. • Generously assume the 49 are typical of all REES clients. Many small businesses, including non-clients, are growing. • Attributing 25% of client increase to REES gives $141/year. • No data exist to track effect of loans on RMLS clients. Therefore no monetized benefits attributed.	• Persons placed in employment traceable to project total 100 (include 30 in agriculture, 15 in construction), average income $300/year. • Assuming 42 percent probability trainees will obtain employment, benefit per trainee per year = $126. • Other employment gains in area not traceable to project. • Assume that 50 children from Youth Corps enter primary school each year, but long-term benefit not quantifiable.
C. 1,960 members of church groups as of 3/78. Not possible to determine precisely how many members apply practices on own farms.	• @ 3,000 farmers took maize seed loans in 1978 (much smaller volume of loans for other inputs). • 60 health groups active, each selling medicines to members.	• Assume 190 farmers benefit from project ox-plows alone. • 250 farmers benefit from project ox-plows and hire tractor. • Another 100 farmers who had ox-plows before project also hire tractor.	• 370 active REES clients; 401 others received some training but are now inactive. • 176 RMLS loan recipients, of whom approx. 75% were also REES clients.	A total of 240 people have received skill training to date: 100 in agriculture, 15 in construction, 40 in women's crafts, 15 in teaching, 50 in sewing, 20 in typing.

CHART B-2

BASIS FOR CALCULATING DIRECT BENEFITS: NIGER PROJECTS

	CDARMA	LIBORÉ	MAGGIA	TALAK
BENEFITS IN KIND	Production system established which provides substantial income to blacksmiths, supplementing seasonal earnings in home villages. Ox and donkey carts supplied to rural population which utilizes them extensively: this is an important secondary benefit.	Increased income for small farmers who acquire skills in cattle fattening. Improved crop yields through fertilization of fields. Side benefit is improved transportation due to provision of carts and boats.	Windbreaks help protect fields from wind erosion and damage to crops. Conservation effect over long-term; also direct impact as farmers report higher yields from protected fields.	Dam and dikes erected under project divert seasonal floods to create pasture where none existed before. Major resource added to pastoral economy recovering from drought. Wage employment (temporary) offered means to reacquire livestock.
MONETIZED BENEFITS: CRITICAL ASSUMPTIONS	• Income from production of 100 carts averages $436 for each of six blacksmiths (one month's work). • Apprentices get small share of earnings, but are considered members of household. • All cart production income is supplement to what blacksmiths would earn without project.	• Each animal kept 3-4 months, returns net income of $46 to farmer. • Assume participation stabilizes with each farmer raising two animals/year. • 65 percent probability of using manure on millet fields with a 100 kg. gain in output valued @ $30. This gives average return of $20. • 14 percent probability manure used on rice fields, with an 80 kg. gain in output, valued @ $20. This gives average return of $2.	• Millet (main crop) yields average 250 kg./ha/ in exposed fields. • In protected areas, 10 percent of fields lost to trees; assume 33 percent increase in yield of millet, giving net gain of 20 percent, or 50 kg./ha. • 50 kg. of millet would cost $9 at official prices -- but much more locally: conservative estimate is $15 during dry season when food stocks run low. • 720 ha. protected, assume 2 ha./family.	• New pastures inside (439 ha.) and outside (1,500 ha.) dike system can support approx. 3,600 goats and sheep and 600 camels. • Average current herd size (post-drought) assumed to be 20 goats and sheep, 3 camels. About half attributable to distributions by project and investment of wages earned on project. • Assume that natural rate of increase due to new pastures improves from 33 to 67% for goats and sheep, and from 20 to 40% for camels. • Value of marginal increase is then $91 for goats and sheep, and $109 for camels, at current local prices.
PARTICIPATION IN PROJECT SERVICES	39 blacksmiths, each with an apprentice, work an average of three months/year on cart production. Total number of carts produced and sold to farmers = 1,950.	To date, 591 families have purchased 857 animals. Only 100 of 263 first-year participants continued into second year. 502 animals/year at current level. Assume two animals/year/household, i.e., 251 steady participants.	Precise land tenure data lacking, but assume 2 ha./family in protected area = 360 families will benefit when trees already planted are mature. Additional 280 ha. (140 families) to benefit from 1979 and 1980 planting.	Approximately 120 households reside in the project area, and their animals graze in the newly created pastures.

OASIS AÏR	SIM/MARADI	TCHIN TABISGINE	TELEMCES
Improved agricultural practices and more dependable marketing system leading to production increases and higher incomes. Concrete wells and *kori* bank protection (new pilot project) improve long-term viability of local production system.	Increased yields of millet, sorghum and peanuts due to availability of (a) animal traction equipment and other implements; (b) seeds and fertilizers. Additional land placed under cultivation. Future source of wood from village woodlots.	New system of irrigated shallow well gardening introduced, with income potential from vegetable production. Heads of small scale stock reconstituted for households which had lost all animals during drought. Wage employment (temporary) was offered as inducement; other animals distributed free.	Direct support to farmers establishing irrigated gardens. Improved agricultural practices and expansion of area cultivated with income-generating crops. Security of gardens vs. damage by livestock. Accessible water for both farmers and herders.
• Of 494 gardens currently being cultivated, two-thirds were in use prior to start-up of project in 1974. The others had been abandoned for many years. • 164 gardens reopened due to project, with average cultivated area of 0.2 ha., two seasons/year. First season, 3/4 in wheat, 1/4 in potatoes: output valued @ $426. 2nd season (maize and potatoes) valued @ $400. • For 330 "old" gardens, increases in output assumed to be 25% due to provision of improved seeds, cultivation techniques, marketing opportunities. Average cultivated area = 0.33 ha., two seasons/year. With 20% of total output attributable to project, benefits valued @ $142+$134 = $276.	• Assume users of project services cultivate two additional ha./year, 75 percent millet, 25 percent peanuts. • Value of output on additional land = $182. Higher yields on "old" land valued @ $91. • Cost of services to farmer approximately $40/year. • Assume equitable distribution of proceeds from woodlots. • Value of wood produced from 3-1/2 ha. neems = $700/year for 20+ years. Value of pods (for tanning) and wood produced from 3 ha. *bagarua* trees = $4,100/year for 20+ years.	• Gardening did not exist on viable basis prior to project. • Average garden has 0.2 ha. under cultivation, two seasons/yr. To simplify, assume tomatoes are grown in both seasons. Output = 700 kg./yr., value = $220, when dried and sold. • Non-gardeners concentrate on animal herds as means of subsistence. Average herd size 20 sheep and goats, increasing @ 67% per year. Total value of increment (some sold) = $182/yr. at current local prices.	• Of 153 gardens, 120 are new this year and attributable to project. All are cultivated one season/year (dry season) only. • Assume that new gardeners cultivate 0.2 ha. each, half tomatoes and half cowpeas. Yield = 175 kg. tomatoes, value $55 when dried and seed costs deducted, and 100 kg. cowpeas, value $50. • Present average benefit of $105/year likely to rise as cultivated areas grow and yields improve. • For "old" gardens, assume expansion of 0.4 ha. due to encouragement by project: 1/2 in cowpeas, 1/4 in tomatoes, 1/4 in sweet potatoes. Value of incremental production after costs deducted = $100 + $55 + $200 = $355.
494 gardens now under cultivation, with all gardeners belonging to village units of cooperatives which market produce. Approximately one-third of the gardens placed under cultivation since project began.	• 50 families now use project-furnished implements, seeds and fertilizers. • 120 families expect to share long-term return from woodlots.	• 68 gardens where households depend primarily on agriculture promoted by project. • 108 households which depend on herding small stock distributed through project.	153 families with gardens in the four villages where project is currently active. Of these, 33 have "old" (pre-project) gardens and 120 have gardens that are new this year.

CHART B-3

BASIS FOR CALCULATING BENEFIT CONTINUATION: KENYA PROJECTS

	BUSHIANGALA	KANDARA	KATOTHYA	KATYETHOKA
ORGANIZATIONS RESPONSIBLE FOR PROJECT MAINTENANCE	Water project committee is one of several in local community under aegis of "Action Group." Careful record-keeping practiced for all project funds.	Committees formed at neighborhood and sub-location levels. Hierarchy of authority for decisionmaking, fund-raising, etc. Accounting firm in Nairobi and German engineers employed with project funds.	Water committee mobilized labor for construction. One member regulates gravity flow to tank. No other active management functions.	Water committee mobilized labor in 1977 to complete rock catchment dam. Work still continuing since pipes not installed. Labor recruited by neighborhood (*mwethya*) leaders.
CHARACTERISTICS OF LOCAL-LEVEL LEADERSHIP INVOLVED WITH PROJECT	Leaders include teachers, civil servants. "Action Group" also uses American volunteer teachers as liaison/intermediary with external donors. Women not active in water committee leadership.	Project conceived and led by M.P. (Asst. Cabinet Minister) with active support of government administrators, frequent and direct access to donors.	Committee members old, non-literate, have minimal contact with outside. Lingering factional quarrel in area divides local leadership.	Committee leadership includes teacher, traders, asst. chief. Women no longer represented on committee. Leaders maintain close contact with government officials.
PROJECT-RELATED MECHANISMS FOR MOBILIZING RESOURCES	In construction phase, *Harambee* effort included labor and materials but no cash. Water committee established; charge levied for water at communal points, payment in cash.	A fee for installation is being collected ($66 per household, to be increased to $157). Not yet charging for use of water, but project leaders recognize need to institute such charges.	In construction phase funds were collected once, and labor donated until system complete. Water committee does not charge users; small fines collected by self-help labor groups from "no-shows."	In construction phase, funds were collected once, and labor donated one or two days per week. Water committee does not charge users; small fines collected by self-help labor groups from "no-shows."
OPERATING COSTS OF PROJECT -- PRESENT AND PROJECTED, DOLLARS PER YEAR	Approximately $2,450 (fuel, etc., for pump, salary for attendants at pumphouse and water points, plus depreciation on pump estimated @ $300/year).	At present approximately $83,000 (includes work on installation). When system is complete, accountant estimates costs of $929,000 per year.	$400 (estimated): occasional replacement of pipes, salary for unskilled attendant.	$400 (estimated) N.B. Basic system not yet completed; will be similar to Katothya.
VOLUME OF LOCAL RESOURCES CONTRIBUTED	Charge for water usage is Kshs. 05 per 20 litres. If 750 regular users pay Kshs 0.10 per day (= 2 trips/day) revenue would exceed $3,500/year when all water points are operating.	Local cash contributions for installation to date = $362,750. Labor valued at equivalent to $1.54 million. Projected annual charge of $31 per household would be manageable for those with cash crops. Assume two-thirds of 30,000 participants pay installation fee.	Water committee treasurer has $35 in hand from fines. No other funds raised since 1974.	Water committee treasurer has $50 in hand from fines. No other funds raised since 1975.

INTERCHURCH	MASENO SOUTH	KYUSO	REES/RMLS	KAWANGWARE
Church groups meet according own preferences; they decide what to grow on church plots; only occasional (<1 visit/month) contact with project agricultural officer.	Parish and church development committees (70 formed to date) supervise input loans and supply of medicines; encouraged to define own priorities and plan activities.	Cooperative societies now being formed at location level; previously all project activity directed by missionary. Now a transition to local management.	• Kenyan governing board oversees PFP program. • REES works with clients on individual basis. • RMLS depends on market committees to regulate loans.	ICA staff (partly Kenyanized) oversee most activities but majority due to leave Kawangware. Cooperative society still in formative stage; businessman's association has 40 members but few functions.
Women form majority of most church groups along with older men. Generally low level of literacy; no direct involvement by local government administrators.	Leadership varies widely from one locality to another, but largely older men (though women are majority of church members). Most have spent considerable time working outside the area.	Chiefs, teachers showing interest in co-op and now take responsibility for collecting funds from new members. Key opinion leaders appear to be actively supporting project.	• Board members are educated, prominent, take keen interest in PFP program. • Wide variation in skills, education, leadership ability of RMLS committee members.	Co-op lacks trained staff, has not attracted broad participation. Local political and economic leadership (city councillor, M.P., large traders) not closely involved with project.
Church groups contribute voluntary labor on demonstration plots, but do not raise funds.	• Agricultural inputs distributed on loan through revolving fund (annual); total $23,225. • Medicine supply of local groups replenished through revolving fund (not fixed term). • Tractor hire service begun 1978.	• Tractor: local farmers pay hire charges. • Ox plows: revolving fund, farmers to pay off loan within one year. There is $6,500 in fund.	• For first time, REES plans to levy nominal charge on clients, to pay branch office rents. • RMLS depends on revolving loan fund in each market, with 1 percent service charge retained by committees and 9 percent interest going to RMLS.	• Some training programs charge fees, others do not. • Shares in co-op available for purchase by community members.
Budget for current year = $5,580 (mainly for travel by agriculture officer and tools distributed free to participants).	• Operating budget = $26,730 per year. • Ag-fund loaned out $8,238 in CY 1977. • Health fund = $20,645 available. • Tractor: $14,000 (@ $15.50/acre, including depreciation).	• Tractor: 10,850 (@ $15.50/acre, including depreciation on 700 acres). • Assume other recurring costs are approx. $10,000 per year (mainly for missionary project director).	• REES: current operating budget = $127,000, with 370 clients. • RMLS costs $1,300/year to operate at current level with $2,580 in circulation.	ICA staff costs (stipends) at present level are @ $20,000 per year. Additional $4,000 (approximately) for rent of facilities. Very poor records make cost estimates extremely difficult.
No funds being generated, although project costs are of magnitude where participating groups could conceivably finance services.	• No funds raised for project operating costs. • Ag. funds: $4,194 of CY 1977 loans repaid by 7/78. • Records of health program show @ 25 percent repaid to diocese. • Tractor: farmers charged $11.60/acre.	• Tractor: farmers are paying $11.60/acre, which generates $8,120/year. Balance of operating costs is recurring charge to project = $2,730/yr. • ox-plows: 126 of 440 purchased to date are fully paid for. Repayment period usually takes >1 year but few farmers default.	• New REES charge of $6.45 per client would generate $2,387 if all active clients paid. • RMLS would generate $232 in interest with 100 percent repayment on current volume of loans.	• ICA staff depend on external donations or own salaries outside project. • @ 50 percent of training fees are actually collected. • Co-op shares purchased to date = $2,195.

CHART B-4

BASIS FOR CALCULATING BENEFIT CONTINUATION: NIGER PROJECTS

	CDARMA	LIBORÉ	MAGGIA	TALAK
ORGANIZATIONS RESPONSIBLE FOR PROJECT MAINTENANCE	Nigerian cooperative union (UNCC) is implementing agency. First efforts (mid-1978) to establish local blacksmiths' co-ops, to own and manage workshops, did not succeed.	GON livestock services in charge of project. Goal is to set up local co-ops, which would manage purchases of livestock through revolving fund. Village committees now select participants to receive animals.	Responsibility rests with GON forestry service, especially for protection of newly planted trees. Local village leadership only mobilizes labor for tree planting.	PVO project manager organizes and directs paid labor force. Attempts to develop local leadership have not succeeded. Individuals now paid on piecework basis.
CHARACTERISTICS OF LOCAL-LEVEL LEADERSHIP INVOLVED WITH PROJECT	Blacksmiths tend to be individualistic, no prior basis of cooperation; they prefer being paid on piecework basis rather than managing co-op themselves.	Village chiefs active in support of project, bring local-level problems to attention of project. Informal groups beginning to explore marketing opportunities.	Traditional village chiefs retain authority, but have relatively little contact with government officials. Little evidence of innovation; villagers say project "belongs to government."	Variety of strategies adopted to recover from drought and rebuild herds. Individual decisionmaking prevails in virtual absence of communal authority.
PROJECT-RELATED MECHANISMS FOR MOBILIZING RESOURCES	• Deduction of $87 (equivalent to 20 percent of monthly earnings) from each blacksmith's pay, to finance purchase of co-op workshops. This was deferred when smiths rejected co-op proposed. • Blacksmiths must raise funds for brickmaking when workshops built.	• Farmers obtain animals through loans, with insurance fee and interest charged: now 5 percent but due to be raised to 8½ percent. • Donkey carts and boats to haul forage are also sold on loan-with-interest basis. • Project has explicit aim of establishing self-financing system.	Labor for tree planting is voluntary, depends on village leaders. Each year project has distributed food-for-work rations to all participants, after planting season is over.	No fees of any kind are being collected from participants. They have been paid a fixed rate for all work on project, with some food rations also given.
OPERATING COSTS OF PROJECT -- PRESENT AND PROJECTED, DOLLARS PER YEAR	• Recurring costs in present annual budget are approx. $40,000/year, EAA technical assistance excluded. • Operating capital contributed by EAA totals $175,000. This is considered as "sunk cost" although half is loan and may be repaid.	• Current operating costs are $30,000/yr. Assume that half this amount is needed to sustain current level of activitiy (251 participants). • Revolving fund of $60,000 considered as "sunk cost," can be sustained with current loan structure.	Operating budget for current year is $55,000, but this is for extension of windbreak. Trees already planted require policing (against livestock) only for two years. No other direct costs to sustain existing windbreaks. Therefore, recurring costs are considered as $0.	Project designed to be maintenance-free. If dam or dikes broke, manual labor would probably suffice for repair. Therefore recurring costs are considered as $0.
VOLUME OF LOCAL RESOURCES CONTRIBUTED	• No funds retained by project for purchase of workshops and equipment by blacksmiths. • $275 paid by each of two groups of smiths for brickmaking.	• Interest rate of 8½ percent = commercial bank lending rate. • Down payment required on second, third animal, etc., is higher to encourage savings and discourage debt. • All loans to date have been repaid on	Community does not provide guardians for young trees; they are paid by CARE. Local labor would be adequate but it is not utilized for this purpose.	No funds being generated, and no established mechanism for mobilizing labor.

OASIS AÏR	SIM/MARADI	TCHIN TABISGINE	TELEMCES
GON technical services hold major responsibility. Four co-ops established in principal garden areas to market produce and to operate consumer shops.	Steering committee formally established, mission and local churches represented. In practice, committee is weak and foreign volunteer makes most technical and financial decisions.	Co-op established by project, to be run by committee. Structure is still unstable and local agricultural technician and foreign volunteer often have to take leadership roles.	No organizations formally established yet; project relies on indigenous authorities (chiefs) to resolve farmer/herder disputes. Pre-co-ops may be formed for marketing.
Villagers participate in electing co-op officers, of whom a minority are literate. Interaction with GON officials greatly increased due to project; gardeners now prepared to negotiate on own behalf in Agadès.	Village chiefs made initial request for project assistance, but have no responsibilities within project. Local SIM minister accompanies expatriate advisor in collection/distribution role.	Very little local-level direction; the community is heterogeneous and recently established. Few individuals command respect outside tribal unit (there are five).	Several innovative farmers actively sought to attract GON agriculture and other services to area. Ongoing economic change as adaptation to post-drought situation; rapid response to project initiatives.
• Co-ops to levy charge on goods carried to Agadès, to cover handling, transport and losses. Three-month trial period to determine adequacy of rate. • Each gardener must mobilize manual labor (>¼ total cost) for shallow well construction (61 dug to date); project provides cement free.	• Participating farmers pay off loans for tools, seed, fertilizer and draft animals but no transportation charges or interest on loans. • For tree planting, villagers are paid by project at wages equivalent to government rates.	• Small livestock were distributed free to 108 families. • Distribution of oxen (for hauling water) was subsidized by project, now complete. • Marketing is done independently by gardeners. • Wells are constructed on same basis as in Oasis Aïr and Telemces projects.	• Farmers pay 50 percent of seed and agricultural input costs, budgeted at $3,992 or approximately $26/farmer/year. • Each gardener must mobilize manual labor (value >¼ total cost) for shallow well construction (nine dug to date); project provides cement free.
• Excluding road and well construction, project costs are currently about $75,000/yr. 50% pays for GON services which would presumably continue post-project costing $37,500. • Main other recurring charge is $12,500 to cover running cost and depreciation on project truck. Therefore <u>total</u> recurring cost would be $50,000.	• Project spending at current level requires $12,000/yr, but this includes new tree planting. Assume that $3,000 would meet the main running costs. • Revolving fund of $6,818 considered as "sunk cost."	Recurrent costs in recent budget are $40,000/yr, excluding technical assistance. Assume some services continue post-project, requiring 50% of this amount = $20,000/year.	• At current (1978) rate, project spends $24,000/yr., although more is budgeted. Assume that participation grows and that 50% of this is needed to sustain activities of current participants. • No revolving fund for seeds and inputs, but one could be set up.
• Current charge of $.09/kg. on truck to and from Agadès probably too low. • Two of four co-op shops have paid off loans in full; others paid 25 percent, 50 percent, respectively. • Four co-ops have each paid back >½ of	• No funds being generated except replenishment of loan fund (no interest). • Participants could carry running costs if additional charges were levied.	• No direct local contributions to support project costs. • Co-op store has turned modest profit ($95/month) so far.	Only funds being generated are from sale of seeds and inputs with 50 percent subsidy. As volume of marketed produce increases, project must devise system to cover transport costs.

CHART B-5

BASIS FOR CALCULATING BENEFIT GROWTH: KENYA PROJECT

	BUSHIANGALA	KANDARA	KATOTHYA	KATYETHOKA
COMMITMENT OF PROJECT STAFF AND RESOURCES TO TRAINING FUNCTION	Project has no specific educational goals.	Project has no specific educational goals.	Project has no specific educational goals.	Project has no specific educational goals.
ADOPTION OF PRACTICES RECOMMENDED BY THE PROJECT	Not applicable.	Not applicable.	Not applicable.	Not applicable.
INDIVIDUAL, FARM OR HOUSEHOLD IMPROVEMENTS ATTRIBUTED TO PROJECT	Some people have begun to plan for piping water to their own households by digging the necessary trenches.	Some people (<20 percent) have purchased grade cows, which require more water, and others (<5 percent) have invested in water storage tanks.	None observed.	None observed.
NEW ACTIVITIES UNDERTAKEN AT GROUP OR COMMUNITY LEVEL	The "Action Group," which had success with the water project, has now initiated the following: village polytechnic, clinic, nursery school, and cooperative society.	Grade cattle purchase scheme is integrated with water project. Plans being formulated for establishing a dairy cooperative. Community centers and farmers' co-ops being built.	School committee plans to build a new primary school and households who are now drawing water are being asked to contribute by making 50 bricks each.	None observed to date.

INTERCHURCH	MASENO SOUTH	KYUSO	REES/RMLS	KAWANGWARE
Demonstration plots are established to teach recommended agricultural practices and the value of using drought-resistant seeds. Group representatives are sponsored at week-long courses, and staff visits to plots are used for instruction.	Church groups are encouraged to take loans for innovative agricultural endeavors, such as poultry raising, groundnut shellers, or improved maize seed. Groups are also encouraged to set goals for their members.	Project seeks not only to introduce new technology (ox and tractor plows), but also to encourage its use in conjunction with recommended agricultural practices such as early planting and terracing.	REES is established to teach better business practices, accounting procedures, reinvestment of profits, etc., to small businesspersons. RMLS provides experience in loan management and use to small businesses that normally would not qualify for bank or government loans.	Programs have been established to teach and develop skills in agriculture, construction and handicrafts. Formal courses have been instituted in adult literacy and sewing. A system of primary and nursery schools has been established. "Health visitor" program attempts to teach people basic health practices.
The supply of drought-resistant seeds was increased; about one-fourth of the group members have adopted some of the recommended practices, such as terracing or planting in rows.	A number of loans have been given for poultry raising and other activities. Adoption rates vary widely between groups; overall rate unlikely to be >25 percent.	600 farmers have rented tractor services, 400 have purchased plows. There has been an increase in terracing and early planting on participants' farms.	REES records indicate that the average client adopts 15 of the 40 practices recommended by the project. Of first 631 clients enrolled in REES, 230 remained active as of early 1978. Total as of mid-1978 was 370. In RMLS, 91 percent of individual recipients repaid their loans in full.	Currently there are 85 people active in skills training programs; dropout rate is >50 percent. Less than 10 percent of the unemployed population has enrolled and stayed in programs.
None observed.	The most active church groups have members who are making improvements on their farms and homes beyond those suggested by the group. These usually require labor but little cash.	Project participants are planting larger acreages and hiring labor (which requires cash outlay).	Detailed records on 49 REES clients indicate average 59 percent of profits reinvested in business.	None observed.
A few of the groups formed around the demonstration plots have begun to take up new activities, such as cotton growing or poultry raising.	Parish and church groups are starting to address issues of common interest. Several groups have set goals for their members, for such things as tree planting and kitchen gardening.	Local leaders hope to build additional functions into cooperatives, especially delivery of farm inputs and marketing of produce.	Market committees have occasionally pooled funds to aid members in distress or to increase loan capital temporarily.	Successful market "clean-up" was organized as a community effort, but not sustained or repeated. Neither business association nor cooperatives have been able to attract the large membership that ICA staff anticipated.

CHART B-6

BASIS FOR CALCULATING BENEFIT GROWTH: NIGER PROJECTS

	CDARMA	LIBORÉ	MAGGIA	TALAK
COMMITMENT OF PROJECT STAFF AND RESOURCES TO TRAINING FUNCTION	Blacksmiths taught to repair and mass produce (in six-person teams) agricultural implements, mainly ox- and donkey-carts. No training for cart users.	Strong emphasis on training individuals to select, care for, feed and market cattle, use agricultural by-products and manage resources.	Nursery workers (paid by CARE) work under direction of Peace Corps Volunteers; project has no specific training thrust.	First experience of manual labor for almost all project employees. Rationale for work is to provid means to reacquire livestock.
ADOPTION OF PRACTICES RECOMMENDED BY THE PROJECT	Almost all of 39 blacksmiths trained to participate in production teams, which average 100 carts/ month. Teams based at Dosso and one other center; two more workshops being developed.	38 percent of first year participants continued into second year of project. "Auto-selection" encouraged as matter of policy. Project research showed that 90 percent of sample of participants used manure on their crops, usually millet.	Not applicable.	Not applicable.
INDIVIDUAL, FARM OR HOUSEHOLD IMPROVEMENTS ATTRIBUTED TO PROJECT	• Project attempt (1976) to assist blacksmiths with loans, to improve individual village workshops, did not have desired results. Under present system blacksmiths are responsible for organizing labor to build "team" workshops. • Assume cart purchasers would buy carts even if project did not exist.	A number of participants report buying calves to raise for milk cows or goats to build up personal livestock with profits.	Some individuals have obtained live fencing and trees from project and have planted them in household concessions.	Seven individuals formerly working on project have begun gardens and dug shal low wells (for first time) on *kori* banks in nearby area. Thi is a "spin-off" activity, possible basis for a follow-up project.
NEW ACTIVITIES UNDERTAKEN AT GROUP OR COMMUNITY LEVEL	None observed to date.	Informal groups from several villages have been formed to check market prices of cattle at different seasons.	None observed to date.	None observed to date.

OASIS AÏR	SIM/MARADI	TCHIN TABISGINE	TELEMCES
GON services active, especially agriculture extension, promoting cultivation techniques, improved seeds, water management. Cooperative development also stressed.	Former project of demonstration gardens introduced new techniques; no educational element present or required to get farmers to adopt new farming methods. None in reforestation.	Demonstration gardens or plots and extension agent used to show new planting techniques, use of fertilizer, compost; selected villagers trained to dig wells.	Project provides extension services, promotes seeds, shallow well and *mare* water management. First exposure to irrigated gardening for most in area.
Potatoes, improved maize and wheat seed adopted by >¼ of about 500 gardeners. Shallow wells being dug; cultivated area expanding; some 160 abandoned gardens reopened.	Over 50 families benefit from animal traction and fertilizer-seed techniques, which project promotes. This represents about 40 percent of population in four villages where project is active.	No gardens in area before 1970. Now 68 gardens, many adopting suggested techniques. This represents 1/3 of population in area; others went back to herding. Numerous "experiments" promoted by project never took hold.	Rapid acceptance indicated by establishment of 120 new gardens in first year, considerably more than planned for. Adoption rates vary among four villages where project currently active.
Shallow concrete wells dug by 61 farmers, more underway, relying on mutual aid among neighboring farmers. Wells require labor equivalent to $150 or more, depending on depth.	28 farmers have requested, received and planted one or more trees in their courtyard or fields. Too early to tell if they take adequate care of them.	23 personal garden wells dug by farmers and cemented by project; a number of traditional wells dug for the 68 gardens.	Shallow concrete wells dug by ten Telemces gardeners; live fencing used at gardens in all four active villages; work on gardens currently in progress demands major commitment of labor
In construction of Agadès-Tabelot road, villages took initiative in choosing route, mobilized labor for more tasks than requested by project.	None observed to date.	None observed to date.	Agreement to resolve water access dispute with nomads mobilized Telemces community for first time, 10/78.

CHART B-7

PVO POLICY CHARACTERISTICS: KENYA PROJECTS

	BUSHIANGALA	KANDARA	KATOTHYA	KATYETHOKA
CHARACTERIZATION OF PVO ROLE AND APPROACH	I. SUPPLEMENTING A SPECIFIC COMMUNITY PROJECT THAT IS BASED ON SELF-HELP, WITH FUNDS FOR MATERIALS AND/OR EQUIPMENT			
PROJECT ORIGINATION	Self-help project initiated by a local committee ("Action Group"). NOVIB provided a grant for materials and supplies. CARE similarly assisted a second phase.	Project developed by a local member of Parliament, who personally contacted a number of PVOs in Europe and Canada. Presently supported by grants for equipment and supplies from ten PVOs, supplementing ongoing local *Harambee* effort.	Local *Harambee* water project supported initially by a District Development Committee grant; community development officer brought project to attention of CARE/Kenya, which provided a grant for pipes and cement.	Project originated in similar fashion to Katothya.
PVO RESOURCES	Cash grant provided by NOVIB for the purchase of supplies and materials. CARE delivered materials (pipes, cement) to site. NOVIB contributions to date total $19,000. CARE (including USAID funds) $12,608.	Cash grants provided for the purchase of supplies and materials. PVO support to date totals $3.1 million.	CARE provided materials, some supervision and expertise. CARE's support to date totals $3,875.	Same type of CARE support as at Katothya. CARE's support to date total $4,105.
PVO INTERACTION WITH O IZATIONS	NOVIB grant contingent on evidence of self-help. CARE grant as well demands formation of a local water committee. Ministry of Water Development helped with procurement of materials and design.	Grants made to trust committee. Local water committees are established to manage labor and to regulate water usage. Maintenance fees will have to be handled by ongoing project administration. Ministry of Water Development aided in design, supervision, transport and housing.	CARE grant contingent on presence of local water committee. Ministry of Water Development assisted in design.	CARE and MWD roles were the same as at Katothya.
REPORTING AND EVALUATION PROCEDURES	Local "Action Group" keeps detailed financial records. CARE records show delivery and utilization of inputs. No survey of water use and needs in area.	Financial records kept by Nairobi accounting firm and annual reports are prepared. Progress of project monitored by engineers. No survey or evaluation done.	CARE system includes reports on site visits and detailed breakdown of costs. CARE-supported survey did not yield hard data on impact.	CARE records indicate site visits made, estimates of costs, etc. Local committee keeps simple records on funds and labor contributed.

INTERCHURCH	MASENO SOUTH	KYUSO	REES/RMLS	KAWANGWARE
II. LOW-PROFILE SUPPORT TO A PROJECT THAT DEPENDS ON SMALL GROUPS AT THE LOCAL LEVEL TO CARRY OUT ACTIVITIES AND MAKE KEY DECISIONS			III. MAJOR COMMITMENT OF TECHNICAL ASSISTANCE AND HIGH DEGREE OF PVO INVOLVEMENT IN DEFINING AND DIRECTING PROJECT ACTIVITIES	
Initiated by local (district level) church leaders who got advice from national church bodies (Catholic Secretariat and NCCK), and developed support, in the form of a grant, from OXFAM for supplies, equipment and staff.	Project conceived by diocese staff, who approached (with the help of NCCK) a funding agency in West Germany (E.Z.E.). Three-year grant for staff, supplies, and the establishment of revolving funds for agricultural loans and medicine.	Discussion between local farmers and missionary priest led to his approaching Catholic Relief Services and OXFAM for grants to buy a tractor and establish a revolving fund for ox-plow purchases.	Project activities initiated by PFP, which has grants (principally from AID and PACT) for staff, training, rent, supplies.	ICA identified community as project site and "consultation" held to determine local problems and priorities. ICA raised funds and material contributions from Nairobi businesses.
Cash grant; expertise and supervision provided by participating agencies -- OXFAM, Salvation Army, NCCK, Catholic Secretariat. OXFAM support to date totals $15,384.	Cash grant to diocese for three years, 1976-79. E.Z.E. grant totals $219,350.	Cash grant only for purchase of tractor and establishment of revolving fund for plows. Resident missionary priest (project manager) funded by Catholic Diocese of Kitui. PVO contributions to project to date total $27,364.	PFP has provided volunteer expatriate staff and has trained local staff, 35 to date. All costs met through external grants. PVO contributions to date (excluding USAID funds) approximately $350,000.	ICA provided their own staff to begin project and worked to raise money and solicit contributions of equipment and supplies from Nairobi businesses, banks, etc. Donations secured by ICA to date estimated at $133,077.
Project establishes church groups that are responsible for managing demonstration plots, but are dependent on project staff for direction and supplies. Government agricultural officer seconded to project.	Church committees established to administer loans, but depend on project staff for direction and funds. Ministry of Health contributes vaccines to clinic program.	Administration of loans handled through subchiefs. Co-op established to manage tractor usage. Government agricultural officer seconded to project.	In RMLS component, the project works through local market committees. Occasional contact with other agencies (e.g., parastatal Kenya Industrial Estates) but no formal linkage. PFP itself is a member of PACT.	ICA utilized no local organizations. It has established a cooperative to manage project activities. No collaboration with government agencies, except for advisory role of local clinic in health program.
Original proposal was broad and general. No detailed records kept on specific groups. Progress reports prepared by government agricultural officer for donors, but no evaluation done.	General progress reports are prepared periodically by project staff; but most participating groups keep few records, if any.	No evaluation conducted, but very detailed 35-page proposal sent to CRS for additional grant.	REES has set up internal data analysis system, but it does not generate results that allow attribution of impact.	Elaborate planning document (120 pages) at 1975 initiation of project, but project records are poorly organized and incomplete.

CHART B-8

PVO POLICY CHARACTERISTICS: NIGER PROJECTS

	CDARMA	LIBORÈ	MAGGIA	TALAK
CHARACTERIZATION OF PVO ROLE AND APPROACH	IV. FINANCIAL AND TECHNICAL SUPPORT TO A PROJECT INITIATED BY THE HOST COUNTRY GOVERNMENT			III. MAJOR COMMITMENT OF TECHNICAL ASSISTANCE AND HIGH DEGREE OF PVO INVOLVEMENT IN DEFINING AND DIRECTING PROJECT ACTIVITIES
PROJECT ORIGINATION	Project suggested to GON by an ILO consultant. EuroAction-Acord was seeking projects as follow-on to drought relief; after site visit, agreed to fund project (1976). Technical assistance and full project developed for 1977-78.	In 1974 a consultant with Nigerian livestock service proposed livestock fattening project. Local farmers wanted funds and technical help. An EA-A representative seeking proposal located projects. Funding began in 1976.	Project developed by GON forester, aided by Peace Corps volunteer assigned to site. Request reached CARE late 1974, and project began in 1975.	Idea for flood control/pasture management originated in 1972 engineering study. Routes du Monde representative asked GON to suggest project as follow-on to drought relief effort.
PVO RESOURCES	EA-A funding for project since 1976 totals $418,500, including: • $173,000 for operating capital (recoverable); • $145,500 direct support to project; • $100,000 in technical assistance.	EA-A funding for project 1976-1978 is $130,909 with $59,545 revolving fund; $15,000 capital investment including buildings; $17,953 project support; $38,411 technicians.	CARE's contributions since 7/75 total about $145,175; represents all project costs except GON technician's salaries and Peace Corps participation. Materials and equipment are about 25 percent of current annual costs ($53,781).	Private contributions channelled through *Routes du Monde*, CARITAS, other agencies total $318,000 since 10/75. More than 50 percent has been spent on wages and salaries of Nigerians.
PVO INTERACTION WITH OTHER ORGANIZATIONS	Nigerian cooperative union (UNCC) is implementing agency for project. All CDARMA products purchased by UNCC, but no local counterpart to expatriate manager has been appointed.	Project works closely with GON Livestock Service. Director and agriculture agents are GON employees, who also handle regional GON health program from project site. GON plans to duplicate project and is sending agents there to be trained.	CARE works closely with GON forestry service; Peace Corps volunteer on site is responsible to GON.	Project supported by an ad hoc consortium; *Routes du Monde* has no other development projects. GON technicians have almost no contact with project.
REPORTING AND EVALUATION PROCEDURES	Although EA-A "inherited" project, design was not used as blueprint, and project was redefined when EA-A manager took over in 1977. Reporting and recordkeeping are of good quality, allow straight forward estimates of blacksmiths' incomes.	EA-A accepted project as designed by GON. During implementation, detailed periodic reports prepared that analyze effect of project or participants and estimate benefits.	CARE response to initial request was rapid, but many months spent finalizing details of project agreement with GON. CARE reporting system tracks inputs and expenses but does not deal with impact.	Unique character of PVO involvement here means no established reporting channel. Routes du Monde project director prepares annual reports on progress of dam and dike construction; these are used mainly for fund raising.

OASIS AÏR	SIM/MARADI	TCHIN TABISGINE	TELEMCES
II. LOW-PROFILE SUPPORT TO A PROJECT THAT DEPENDS ON SMALL GROUPS AT THE LOCAL LEVEL TO CARRY OUT ACTIVITIES AND MAKE KEY DECISIONS		III. MAJOR COMMITMENT OF TECHNICAL ASSISTANCE AND HIGH DEGREE OF PVO INVOLVEMENT IN DEFINING AND DIRECTING PROJECT ACTIVITIES	II. LOW PROFILE SUPPORT TO A PROJECT THAT DEPENDS ON SMALL GROUPS AT THE LOCAL LEVEL TO CARRY OUT ACTIVITIES & MAKE KEY DECISIONS
CWS staff member developed project in 1974 and obtained 50 percent USAID financing for Phase I. GON involvement much greater in Phase II (1976-78).	Previous SIM project included demonstration fields in four villages. Local preacher asked for a continued program. SIM identified wood scarcity as a problem and forestry expert started woodlot project in one village, 1974. Program expanded from local demand.	Local residents requested neighboring Catholic mission to extend their food-for-work and gardening program to Tchin Tabisgine. Brothers found funding from EIRENE, a pacifist ecumenical church group. Funding began in 1974.	LWR staff members based at Tahoua developed idea for project and gained backing of government agricultural officers, mid-1976. LWR home office approved quickly but full government authorization given only 2/78.
Phase I funding totaled $245,000; CWS supplied two French technicians. For Phase II, CWS is sole donor ($270,000) with GON supplying most technical staff except in road and shallow well construction.	SIM invested $20,193 in 1975-78 budgeting, $16,759 for 1979. Also use $2,277 per year on truck on loan from another SIM project. $2,800 per year for part time SIM technician @ $7,000 in revolving fund. No expense for buildings or project equipment.	EIRENE contributed $200,000 for three-year project ending June 1979. Funding mainly from German group "Bread for the World." 50 percent is for communal work, agriculture and reforestation. On-site German technican and country program coordinator adds $60,000 to three-year budget.	LWR funding of three-year project budget (1978-81) totals $139,545. Only about $18,200 spent as of 11/78. No LWR technical assistance now, although staff previously involved.
LWR helped train well diggers. CWS role in direct implementation has diminished in Phase II, with increasing involvement of GON technicians.	SIM uses volunteers from Christian Reform World Relief Committee for project. Has almost no involvement with GON services and writes projects of less than $5,000 each as they need no clearance above *sous-prefet* level.	EIRENE manages project. Majority funds from Brot fur die Weld. Christian Aid sent money for animals, LWR helped start well program, CWS and Catholic Mission/Niger gave early administrative aid and a truck. GON services weak in project area and have given project little support.	After sustained effort to gain GON backing for project, LWR has reduced its direct involvement. GON technicians now in charge of project implementation.
Major redesign took place 1975-76, detailing much greater role for GON services. Annual reports by CWS representative cover general progress of project and expenditures. GON agriculture technician keeps census data but not detailed farm records.	Almost no formal documentation or reporting, leaves great latitude for field staff. Deliberate effort to keep project small, low-profile, flexible. Result is virtual absence of statistical data.	Since early phase when project was loose, open-ended, a shift to more detailed financial reporting. EIRENE staff have periodic sessions to evaluate own work; but no detailed data collected on impact.	Original project design (1976) using LWR format was brief but specific. Project still in early stages but staff are tracking progress closely, e.g., estimating garden sizes and crop areas.

CHART B-9
ENVIRONMENTAL CHARACTERISTICS: KENYA PROJECTS

	BUSHIANGALA	KANDARA	KATOTHYA	KATYETHOKA
PHYSICAL RESOURCE BASE	Medium to high agricultural potential. 1500-1800 mm. rain per year. High population density (250/sq. km.), low cash incomes from agriculture, averaging about $50. Average holding five acres. Cash crop markets not well developed.	High potential area, good sales, high rainfall. Exceptionally high population density (300/sq. km.) has led to intensive farming techniques. Most farmers are able to grow a cash crop of coffee or tea, and average farm income is $500-1,000. Average holding three acres.	Low potential area, 5 out of 8 seasons with less than 300 mm. of rainfall. Average cash farm income <$30. Water scarcity in dry season: before project, women had to walk 10 km. or more to obtain water.	Located in area adjoining Kathothya, with the same environmental characteristics and water scarcity problem.
PRE-EXISTING DEVELOPMENTAL TRENDS	Long-established rural-urban links due to labor migration; close to district and provincial HQ. Interest in and awareness of development are high, though local economy not dynamic.	Proximity to Nairobi, high mobility of adult population, sizable proportion literate. Adoption of cash crops and agricultural techniques rapid and widespread.	Linkages with other areas not well developed; few adults are literate. Little evidence of social and economic change prior to project.	The situation is essentially the same as at Katothya.
ORGANIZATIONAL BASE	Very strong Church of God community, which supports a secondary school and has been the driving force behind the water project and other efforts including a cooperative, village polytechnic, and clinic. Active Catholic church in area as well.	Highly developed *Harambee* movement responsible for schools, churches, cattle dips and coffee societies. Many women's rotating credit associations. Churches are numerous and well attended.	Few local organizations beyond school committee. Some churches but not very active. *Mwethya* groups (based on neighborhood residence) available for labor exchanges and voluntary work on self-help projects.	Similar to Katothya, but assistant chief (a civil servant) is considerably more dynamic.
SOCIETAL DIFFERENTIATION	Two church groups; little cooperation in the past, but that is now changing. Most people endorse goals of water project and other development efforts. Water project of great benefit to women.	High value placed on education and economic development by entire population. Church groups have history of cooperation. Differences in wealth will mean that some households will have difficulty in paying all charges for water installation. Women have pivotal role in agricultural production and are especially responsive to project.	Only a small educated minority (not active in water project leadership). Older men are key decisionmakers. A difference of long standing between several *mwethya* groups means that not all of target population participated in project planning and labor. Women are represented on committee.	Literate leaders are strongly behind project, both young and old men on committee. No apparent territorial division, although group closest to project site is more active in labor and in use. Although women are the key beneficiaries they are excluded from water committee.
HOST COUNTRY GOVERNMENT RESOURCES	Fairly ready access to government services (HQ only 20 km. away), although ag. extension less effective than community development office. Grants available for local *Harambee* projects.	Government services are accessible and active by comparison with other rural areas in Kenya. Water Development Ministry aids project; road system highly developed.	Community development officers work closely with local groups on specific projects; limited grant funds available from District Development Committee. Minimal contact with other government technical services.	The situation is the same as at Katothya.

INTERCHURCH	MASENO SOUTH	KYUSO	REES/RMLS	KAWANGWARE
With the exception of a few areas, low agricultural potential; between 2 and 5 out of every 8 seasons there is below 300 mm. of rainfall, depending on area. Low population density (11/sq. km.). Average cash income under $40.	Most of the land is of medium potential, with more than 850 mm. of rain per year. Relatively high population density of 168/sq. km. and average holdings of 5-7 acres. Maize and sugar cane are chief cash crops, average cash income $50-100/year.	Low potential area, with 5 out of 8 seasons below 300 mm. rainfall. Cotton and green grams are principal cash crops; average income from agricultural sales is $30. Population density of division is 20/sq. km. Average holding is 10 acres.	Area is of medium to high agricultural potential. High population density (220/sq. km.) and well-developed trading networks. 7,500 licensed traders in Kakamega District alone. REES estimates its clients' average yearly profit is $1800; non-client average probably lower.	Community on the outskirts of Nairobi. Most people unskilled, with few opportunities. 30 percent of potential labor force is fully employed. About 200 acres of arable land with high agricultural potential and ready access to export markets, but most is not under cultivation.
Although labor migration is extensive throughout Kitui District, there is not much urban/rural contact. Prior to project, agricultural change and innovation were negligible.	Spread of cash crops and associated economic change varies within project area. In Luo areas, prolonged absence of young adults working in urban centers has tended to limit rate of economic change.	Area is remote from district center, little affected by economic change. Very little contact with urban centers. Literacy rate lower than the rest of the district (@ 10 percent of adults).	High rate of turnover and mortality in small businesses; vast majority are retail shops with identical inventories. No strong tradition of innovation or diversification in rural economy.	Rapid population growth and spontaneous settlement. Numerous individual adaptations to peri-urban environment but almost no communal activity.
Some variation within the district. Churches numerous and active in some areas, not in others. Relatively few self-help efforts beyond school committees. Traditional *mwethya* groups do farm work.	Record of *Harambee* movement in Nyunza Province has been uneven. Political differences have hindered completion of projects. Schools highly valued and well-supported. Many churches in area.	Few self-help efforts, except for school committees. Church membership relatively low. Traditional *mwethya* groups do communal farm work, house-building, etc.	Market committees exist at most market centers, but most perform only social functions. No tradition of cooperation among small businesspersons. In the area, many organizations and self-help efforts operate, e.g., school committees, churches, water projects.	Many in community are transient or recently arrived, but some local organizations do exist, such as women's associations, market committee, pre-school committee and poultry cooperative.
Entirely Kamba area. Church membership varies from locality to locality; churches often have rather distinct territories. Effort to involve non-church community not yet well developed. Majority of group members are women, who are responsible for most of the farming.	Three ethnic groups in diocese, main thrust of project thus far is in Luo areas. Older farmers predominate in church groups, leaders are mainly men. Women, however, do most of agricultural work.	Area is ethnically homogeneous (Kamba) and there are only marginal differences in wealth. Some evidence of inter-locational rivalries, though not a major obstacle to project.	Project limited to local businesspersons, but reaches a wide representation. Entry into small business (thru shop rentals) relatively easy with minimal capital. Small enterprises widely dispersed in rural areas.	Population is ethnically mixed, with Kikuyu most numerous and earliest to settle. Growing number of school-leavers without employment-related skills. Competition for scarce opportunities is intense.
Agricultural extension service in district rarely able to reach small farmers, especially women. Lack of transport a major constraint.	Technical personnel from government not sufficiently numerous, mobile or well trained to reach mass of rural population.	The situation is essentially the same as for the Interchurch Project.	Very little direct involvement by government or commercial banks with small enterprises, few of which qualify for credit. Management and technical assistance programs still at very early stage.	Urban population growth in Nairobi area has outstripped expansion of social services and formal sector training programs.

CHART B-10
ENVIRONMENTAL CHARACTERISTICS: NIGER PROJECTS

	CDARMA	LIBORÉ	MAGGIA	TALAK
PHYSICAL RESOURCE BASE	Moderate agricultural potential with rainfall in Dosso Dept. ranging 500-1,000 mm. Peanuts, cowpeas are main cash crops, but farm incomes rarely exceed $100. Local transport of produce depends on carts (hired or owned).	Moderate to good agricultural potential, but serious land scarcity. Rainfall c. 1000 mm. Millet and cowpeas are major crops for sedentary (Djerma) population; Peul keep milk cows.	Low to moderate agricultural potential; annual rainfall about 500 mm. Progressive deforestation has led to severe wind erosion and decline in yields of main food crops.	Area lies between Aïr massif and the desert; rainfall about 100 mm. Talak plain had some seasonal pasture watered by floods, but quality and quantity fluctuated sharply.
PRE-EXISTING DEVELOPMENTAL TRENDS	Demand for animal traction equipment exceeds supply. Prior to current project, about 20 blacksmiths had skills upgraded under FAO project but had no means of organizing cart production.	Recent innovation in area is a government-sponsored rice project: first significant income-generating crop. No other evidence of agricultural change or innovation.	Area densely populated and all arable land under cultivation. Little evidence of change in agricultural production techniques. Dry season out-migration major response to food deficit in area.	Drought had disastrous effect on local pastoral economy. Tuareg groups in area became havily dependent on food relief; gradual reconsitution of herds possible with government-supported distribution of animals.
ORGANIZATIONAL BASE	Blacksmithing is a family enterprise at village level, with tradition of apprenticeship. No guilds or other associations existed among blacksmiths.	Both Peul and Djerma villages have chiefs who settle community problems; neither have practice of mutual aid. Djerma pay friends and family for aid or use of tools. Djerma chiefs support project, Peul chiefs express disinterest in cattle fattening.	Absence of formal organizations; village chief and *Sarkin Samari* (leader of village youth) mobilize community labor. Villages are long-established but vast majority of adult males engage in dry season migration.	Intra-family linkages are used to manage herds, caravans. Above family level, no tradition of mutual assistance exists, communal labor previously unknown.
SOCIETAL DIFFERENTIATION	Blacksmiths drawn from both Hausa and Djerma areas. Traditional social standing of smiths much higher among Hausa; among Djerma, regarded as equivalent to slaves.	A few families considered rich. Most have little income beyond that from rice and cattle fattening projects. Peul raise milk cows for rich Djermas, and sell milk themselves at weekly market to buy grain.	Maggia Valley is populated by long-established Hausa farming communities. Peul pastoralists pass through area with herds during dry season. Hausa depend on goevenment to act as buffer in event of conflict.	Tuareg population in Aïr region composed of many small tribal units, with no tradition of cooperation. Strong influence exerted by Muslim *marabouts* in specific localities.
HOST COUNTRY GOVERNMENT RESOURCES	Nigerian cooperative union (UNCC) has little field capability to assist farmer co-ops. Budget allows subsidy for sale of carts, but distribution not always prompt.	Area is close to Niamey (30 km.), but prior to project, government animal husbandry service was weak and had no capacity to serve small farmers directly.	Water and Forestry Service at *arrondissement* level has few field projects; lacks trained personnel, funds and means of transportation.	Arlit *arrondissement* is newly "opened up" due to mining of uranium, but few government services outside of town. Limited program of livestock distribution to help rebuild herds, but no follow-up.

OASIS AÏR	SIM/MARADI	TCHIN TABISGINE	TELEMCES
Small-scale irrigated gardens on banks of seasonal rivers *(koris)* have high production potential; farmer can net $1,000 or more per year on 0.5 ha. Areas away from *koris* are dry, arid; rainfall 100 mm. per year.	Moderate agricultural potential in an area with rainfall of 1,000 mm. Winds damage crops and erode soil; fuel for cooking and wood for building are scarce due to deforestation.	Limited *kori* areas suited to irrigated gardening, water accessible at shallow depth. Remainder of area is harsh, arid (rainfall 160 mm.). Pasture for livestock not adequately recovered from drought.	Rainfall <300 mm., area of low potential for rainfed agriculture (e.g., millet). Water accessible at shallow depths (<10 meters) for wells, also in seasonal *mares* (lakes) permitting irrigated gardens.
A long tradition (3 generations) of oasis gardening in the area; this system survived drought relatively well. Local farmers sought solution to *kori* bank erosion and problem of collapsing earth-lined wells.	Extensive seasonal out-migration, a food deficit area. In some villages Christian converts retain contact with SIM and see it as a resource center. This was key factor in initiation of project.	In post-drought period area was settled for first time by former herders who had no experience of agriculture. They were heavily dependent on food relief.	Area only recently settled by sedentary Hausa farmers (most post-drought). Currently a food deficit area, but spontaneous establishment of gardens occurred before project and was one reason for choosing area.
Tradition of mutual assistance (*gaya*) among gardeners in village communities, but no formal organizations existed prior to project. Indigenous authorities, chiefs and *marabouts*, have succeeded in mobilizing communal labor.	Moderately strong village chief structure but villagers influence chief's decisions. Some tradition of cooperative work. One village has Christian majority but no apparent organization on religious basis.	Five different Tuareg groups settled after drought. No cohesion or structure for communal work. Groups of five neighbors or relatives have trouble digging wells together; co-op members could not agreed on president and ended with a weak ruling committee.	No formal organizations in existence prior to project. Sedentary farmers in villages are recent immigrants from adjoining areas to south. Pastoralists are mobile, independent, have had minimal contact with government services.
Core population affected by project is Tuareg group with long tradition of oasis gardening. Fairly stable exchange relationships exist with caravaners and nomadic groups in surrounding area.	All Hausa majority have minimal incomes. Any cash earned goes for food. Christians are a small minority; most people are Muslims; wealth distinction does not seem to follow religious lines.	Income level universally low. Successful herders rebuilt herds after drought and left. Farmer now considered rich if he has 40 goats. Most project participants had equivalent status when herds wiped out by drought.	Mixed population of Hausa farmers and pastoralists who are Peul or Tuareg/Bouzou. Conflict over water rights has limited expansion of gardens. Project attempting to mediate and guarantee water access for all.
Almost no activity by government services in area prior to project. Bad roads and distance (125 km.) from Agadès inhibited contact.	Limited quantities of agricultural inputs and implements available, but government has no delivery system to reach villages. Technical services weak and understaffed.	Although area is close to Agadès town, it has been almost untouched by government services.	Since drought ended, a modest expansion of services into area north of Tahoua has occurred. Trained staff are scarce, funds limited. Poor road access inhibits contact.

ANNEX C

DATA COLLECTION DOCUMENT

PVO IMPACT STUDY

Project Name:

Sponsoring Organization(s):

Location

Project Purpose:

Project Duration:

Current Status:

Dates of Field Visit:

Field Investigation Team

Number of Person-Days:

Data Sources:

A Field Collection Guide used to assemble data obtained on the impact of Private Voluntary Organizations under a contract with the Agency for International Development (AID).

KITUI, KENYA

June 27, 1978

Revised and Updated for Niger

November 1, 1978

Development Alternatives, Inc.
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OUTLINE

IMPACT VARIABLES

- Y_1 BENEFITS
- Y_2 BENEFIT CONTINUATION
- Y_3 BENEFIT GROWTH

EXPLANATORY VARIABLES

A. Project Environment Varibles

- X_1 RESOURCE BASE
- X_2 RESOURCE DISTRIBUTION
- X_3 RISK/VULNERABILITY
- X_4 SOCIETAL DIFFERENTIATION
- X_5 ORGANIZATIONAL BASE
- X_6 DEVELOPMENT RESOURCES/GOVERNMENT

B. Project Development Variables

- X_{10} COMMUNITY/DONOR INTERFACE
- X_{11} PROJECT RESOURCES
- X_{12} TIME PHASING OF ASSISTANCE

C. PVO Policy Variables

- X_{20} NATURE OF PVO INVOLVEMENT
- X_{21} PROJECT IDENTIFICATION AND SELECTION
- X_{22} RESOURCE COMMITMENT
- X_{23} RESOURCE RESPONSE
- X_{24} ORGANIZATIONAL DEVELOPMENT
- X_{25} COLLABORATION

IMPACT VARIABLES

Y_1 BENEFITS

Give a description of the major benefits of the project -- the differences between with and without, before and after the project.

Number of direct beneficiaries:

(use headings as applicable)

Service/Benefit	Average No. of Users (Households)	Volume of Use	Frequency of Use	Total Use/ Year

Give size of average household:

Are there indirect users/beneficiaries attached to the project? If so what indirect benefits, how calculated, accruing to how many beneficiaries?

Benefits in-kind traceable to use:
As defined by the benefiting population:

a.

b.

c.

d.

As quantified:

Gained/earned/saved	Amount/Use	Value	Average Benefit/User
a.		a.	a.
b.		b.	b.
c.		c.	c.
d.		d.	d.

Y_2 BENEFIT CONTINUATI(

The purpose of this variable is to determine whether the benefits calculated in Y_1 will continue after the external/donor funds are exhausted.

1. A. Give the resource requirements for project operations/management per year.

Manpower

Technical Expertise

Funds

Equipment

B. Give the local commitment of resources for project maintenance.

	Commitment	Mechanism	Amount/Year
Funds			
Labor			
Other			

2. Give the local commitment of resources for replacement/depreciation.

	Commitment	Mechanism	Amount/Year
Funds			
Labor			
Other			

3. What local organizations have been established or strengthened which will be able to take action on project maintenance or replacement?

Organization	Composition	Leadership	Functions

Y_3 BENEFIT GROWTH

The purpose of this variable is to capture the potential for future development progress based upon knowledge and resource use, by individuals and/or groups, caused by or attributable to the project that has been supported. (Circle applicable categories under each question and give details.)

What knowledge has been transferred to individuals to increase their understanding and modify their behavior in ways which lead to development progress?

Category	Knowledge Transferred	By Whom	Observable Behavior Changes
Agriculture			
Child care			
Nutrition			
Health			
Other			

What resources have individuals committed in modernizing investments that will speed the development process?

Category	Investment	% of households investing
Agriculture		
Health		
Nutrition		
Child care		
Home improvements		
Education		
Other		

What has happened within the community to suggest an enhanced capability to identify and resolve local problems?

Organizations

Leadership

What resources have been committed by the community to projects beyond that reviewed, which will speed the development process?

Category	Funds generated	Labor committed
Water Systems		
Schools		
Roads		
Child care		
Soil conservation		
Agricultural Inputs/Marketing		
Other		

A. PROJECT ENVIRONMENT VARIABLES

A1 RESOURCE BASE

This variable is intended to capture the wealth/income level in the project area. The critical question is the position of the community residents on a continuum from negative surplus to substantial cash income availability.

1. Cash income sources

Category (list)	% Benefiting	Average return per year
Cash crops:		
Livestock marketing:		
Labor:		
Remittances		
Commerce:		

2. Assets

   Landholdings, average size:

   Potential agricultural value:

   Animal inventory average size:

   Potential value of animal products:

3. Demographic trends

   Seasonal migration (in, out):

   Permanent migration (in, out):

   Effect on resource base:

X_2 RESOURCE DISTRIBUTION

This variable is intended to capture the magnitude of the distribution of resources within the project area, from poorest to most wealthy residents. A prime question is whether the difference in wealth/income hinders or assists the project and the development process.

Give the average and the range of variation in:

Category	Range	% of households
Landholding:		
Lowest		
Average		
Highest		
Livestock:		
Lowest		
Average		
Highest		
Commerce/trade		
Salaried employment		
Cash crops (from X_1)		

3 RISK/VULNERABILITY

The purpose of this variable is to capture the uncertainty in agricultural producti and/or sales that may affect the development process in the project area.

Give variations in agricultural production or income from the following causes:

Weather (in particular the average rainfall and the probability of achieving the average)

Diseases that affect agricultural or animal production

Marketing (whether there are buyers and relatively consistent prices for agricultural output)

X_4 SOCIETAL DIFFERENTIATION

The purpose of this variable is to capture the distinctions among the population within the project area. The key issue is the ways in which the following categorizations affect local development:

Give the differentiation in the project area in:

Category	How categories divide	Difference to project
Ethnic		
Religious		
Education		
Age		
Sex		
Location/territory		
Other		

K_5 ORGANIZATIONAL BASE

The purpose of this variable is to capture the level of organizational development in the area as the project was first identified. Both formal (modern) organizations and indigenous bases of association (above the level of the nuclear family) should be described.

List the organizations extant in the area when the project was first identified.

Organization	Structure	Function	Leadership	Coverage/participation

Which of the organizations were most valuable in initiating or supporting project activities?

X_6 DEVELOPMENT RESOURCES/GOVERNMENT

The purpose of this variable is to determine what resources, and resource level, the host country government has available to assist community projects. Resources may be from a special budget, or allocations of line ministries not specifically designated for support to local institutions.

List the support that the project received from the government (circle the applicable categories).

Category	Function	Importance to Project
Specialists (staff)		
Funds		
Materials/supplies		
Other		

Give the general availability of support for development projects from government at the district or regional level:

A. Special Budget

Source	No. of projects	Level of support	Types of Projects

B. Availability of government staff for short-term, long-term assistance:

C. Availability of supplies, material, transportation, etc.

What mechanisms are used to allocate these resources to community projects?

B. PROJECT DEVELOPMENT VARIABLES

X_{10} INTERFACE

The purpose of this variable is to capture the interaction between the community in which the project resides and the external world made up of government and donor agencies.

List the key actors from within the community (internal) who were instrumental in arranging for project support. (Teachers and other local government representatives are considered a part of the community if they are not subject to regular transfer and live within the community area.)

Actor	Position	Actions	Outcomes of actions

List the key actors from outside the community (external) who were instrumental in arranging for project support.

Actor	Position	Actions	Outcomes of actions

How was this project brought to the attention of the donors; by whom?

X_{11} PROJECT RESOURCES

The purpose of this variable is to provide the details of project support from all sources: (U.S. dollars)

Support Category:	Donor 1	Donor 2	Donor 3	Host Government	(See Y_2) Participants	Total
Cash						
Materials						
Technical Assistance						
Labor						
Land						
Other						

Provide the details of the time phasing of support if it had an important impact on the project.

X_{12} TIME PHASE OF ASSISTANCE

The purpose of this variable is to capture the dynamics of external assistance to the project, evolving from the present toward the future.

Total amount of external assistance to the project to date (from X_{11}):

Sources and termination dates of assistance:

Source	Current status	Scheduled Termination	Status and amount of additional request
Donor 1 ( )			
Donor 2 ( )			
Donor 3 ( )			
Host country government			
Banks			
Private sector			
Other ( )			

Breakdown of future funding requests:

	Amount	Source	Time period
For operating costs:			
For expansion of project:			

C. PVO POLICY VARIABLES

X_{20} NATURE OF PVO INVOLVEMENT

The purpose of the policy variables X_{20} - X_{25} is to capture the approach, criteria and operations of the Private Voluntary Organization in the particular project being studied, as well as the overall strategy employed. A PVO is defined to be a single organization supporting a project, a consortium of organizations that agree to support a project simultaneously (collaboratively), or a consortium in which the donor agencies join sequentially but still in collaboration. When funds from one donor agency are exhausted and a switch is made to a second, this would constitute involvement of two PVOs in the same project.

Identify the PVO role in the project as it has been used to complete the data requested for X_{21} - X_{25}, giving the details of involvement.

X_{21} PROJECT IDENTIFICATION AND SELECTION

1. How did this project come to the attention of the PVO (from X_{10})?

2. What criteria did the PVO use to select this project?

3. Is there an established and articulated PVO position on project selection?

Tentative categorizations:

- Wait for projects to appear as candidates from the government;
- Generate project ideas with attempts to gain community acceptance;
- Support progressive individuals with resources/technology;
- Demonstrate new technology.

X_{23} RESOURCE RESPONSE

What was the elapsed time between the PVO's identification of the project and the decision to commit funding, to the provision of funding?

Where, physically and in terms of headquarters, are funding decisions made within the PVO? How many layers removed from the staff or organization that first identified the project?

What level of field investigation and written justification is evidenced in the project by the PVO?

Category	Document Pages	Level of Sophistication
Staff to own country headquarters		
Country headquarters to overseas headquarters		
PVO to consortium or other PVO		

X_{22} RESOURCE COMMITMENT

What resources did the PVO make available to the project (from X_{11})?

What criteria did the PVO use to determine the resource support levels and resource mix?

Tentative categorizations:

- Brokerage function only with no direct support to project;
- Top-off of funds ensuring minority donor role;
- Direct support for project limited by requirement for host government takeover in future;
- Direct support for project with requirement for future self-sufficiency;
- Direct support for project with no limitations.

X_{24} ORGANIZATIONAL DEVELOPMENT

1. What support was provided by the PVO to the internal strengthening of local organizations within the project area?

2. What are the reasons for the adoption of this strategy?

Tentative categorizations:

- No initial organizational efforts by donor but:
  a. Insistance upon local efforts prior to disbursement of funds;
  b. No requirement for prior local efforts.
- Initial organizational efforts supported by the PVO;
- Follow-on organizational efforts supported by the PVO after project is well underway.