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EVALUATION OF THE PROJECT DE DÉVELOPPEMENT

COMMUNAUTAIRE DE CHAMBELLAN

PDCC

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## PREFACE

"Chambelan, Chambelan, fe efo pou devlope  
Avek proje PDCC Ka ban nou tou sa nou manke"

"Chambellan, Chambellan, work hard to develop  
with the PDCC project which will give you  
whatever you need"

- A song popular with Rural Youth Clubs

This quote is a poetic expression of the basic dilemma facing PDCC, the project being evaluated in this report. When local expectations are raised to the point where a project is looked at for "whatever you need", the options for administrators are not particularly attractive. One is to try to satisfy all needs and in attempting to do quickly run out of resources. Many will then be disgruntled. Another option is to refuse to comply - to disregard many of the wishes and needs formulated by the very people any project needs to collaborate with. Again, there will be disappointments.

PDCC has for some time been locked between these undesirable options. But now a new start has been made. The basic contractual agreements, the directorship, the staffing, the goals, and the methods have all come under review and been changed. There is a fresh wind blowing through PDCC and the town of Chambellan, and it is being felt both inside the project and out. PDCC has a measure of leeway and flexibility right now which it has not had in years.

This evaluation, I hope, should be a contribution to the renewal and rethinking of PDCC at this opportune time. It is an account of and reflection upon the past, yet its underlying goal is to help shape the future. This is why I am outspoken in both praise and criticism; an evaluation which is not candid is of little use to anyone.

I would like to thank all those who have assisted me in my work: John Lewis at USAID and Mychelle Tremblay at AEDC; Murray Luft at CANSAVE and Jairo Arboleda and Gretchen Berggren of the Save the Children Federation; Gaspar Brice, Deschenault Clermont, Renel Laraque and the entire field staff in Chambellan, as well as those 19 individuals who acted as interviewers, coders, and nutrition agents in the two surveys I conducted on site. My special thanks go to Florence Dolcé for her hospitality. Finally, I am grateful to many notables, townspeople, and peasants of the Chambellan Commune for their patience and collaboration.

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## 1. INTRODUCTION: PROJECT GOALS AND EVALUATION GOALS

The goal of this evaluation of the "Project de développement Communautaire de Chambellan" [PDCC], in the most general terms, is to assess the institutional and cost effectiveness of the project in the context of its original objectives as stated in the project paper [Project Paper, 1981]. That document did not mark the beginning of the work in Chambellan but rather represented the commencement of its [partial] funding by USAID. For evaluation purposes, the project paper is the initial point of reference against which project achievements must be measured.

In more precise terms the tasks of the evaluation were defined as the following:

1. Document the Chambellan peasant groupements by surveying a sample of their "managers" and by describing the following aspects of each groupement:
  - membership size, categorized by age, sex, occupation, etc.
  - lifespan
  - nature and scope of activities
  - structure and administration
  - overlap of leadership and/or membership with other organizations.
2. Attempt to replicate the 1983 Bros survey of 154 local peasants as a means of evaluating changes in the attitudes and behaviour of the sample population in health, agriculture and public hygiene practices.
3. Conduct a cost/benefit analysis to provide detailed estimates of material, human and social costs and benefits of each major activity concerning agricultural extension services, peasant organization, and infrastructural improvements.

When the field work for the evaluation had advanced to about one-third of the time allocated, several minor modifications and improvements

of the scope of the work were made. First, many groupements were found to be reasonably well documented. Groupement size as well as the membership and sex composition of the executive committees were known in many cases. Sex, age and occupation of the members were, however, impossible to determine with any accuracy. I have collected other data [e.g. on participation rates] to make up for this deficiency. While many of the "managers" - it is preferable to speak of "leaders" - were interviewed, the existing name lists and the population at large proved to be the most interesting and fruitful sources of information about the groupements. The spirit of the scope of work was thus adhered to while the aim of documenting the groupements was satisfied; but I did not rely exclusively upon the leadership in order to reach this end.

Second, the "replication of the Bros survey" also required certain modifications. I have not been able to secure even a single copy of his questionnaire. His sampling method is unknown and neither his report nor the PDCC archives contain any useful information concerning it. Furthermore, local informants told me that he conducted his interviews in French, using a local interpreter. For all of these reasons I have felt it necessary to abandon the idea of replicating that survey. I have replaced it with a full-blown project impact survey which covers a 33% representative sample of the entire target population. The creole questionnaire was administered by seventeen trained interviewers who were recruited from among the PDCC animators and the town population. The questionnaire covers, besides the basic demographic and economic descriptions of the target population, the following areas of potential project impact:

- infant mortality
- participation in groupements communautaires, "strategic groups", and the two cooperative movements.
- access to potable water
- vegetable gardens
- rabbit breeding
- fish ponds
- latrines
- vaccination of chicken

- participation in project-supported schools at the pre-school ["stimulation precoce"] and primary [ecole communautaire] levels.

Third, the cost/benefit analysis of major activities has been carried out to the extent that it has proven feasible to do so. Record-keeping and documentation are, unfortunately, weak points of PDCC. However, I have been able to assess the human and social costs and benefits while the project impact survey has been especially valuable in producing excellent data concerning the spread of benefits to various social strata. But the material costs of individual activities are very hard to estimate since the budget breakdowns are not sufficiently detailed and virtually no logs are kept on anything. To rectify this situation, I have designed a standard data form to assess costs and profits on experimental plots with some degree of precision, and left it for future use at the project. This should help alleviate the cost/benefit measurement problem in future evaluations, at least in one area of immediate relevance for project operations.

As an integrated rural development project, PDCC has formulated a long list of specific objectives which are to be realized according to a tight schedule. They fall under the headings of [a] rural infrastructure, [b] agriculture, [c] education and training, [d] health, nutrition and environmental sanitation, and [e] small enterprise development. Applying a conventional output analysis, I have examined the degree to which each one of the twenty-three original objectives has been reached. This meant proceeding beyond the explicit scope of this evaluation, but I felt my report would have been incomplete had I failed to undertake, among other things, a conventional comparison of planned objectives and actual achievements. The results of this comparison are presented in the third chapter of this study.

One aspect which distinguishes the present evaluation from most others is that it has a substantial policy component. The consultant was asked to allocate a considerable amount of his time and resources to

the exploration of the following areas:

4. The validity of the developmental approach of the project and the coherence of cause-and-effect linkages at all levels of the GPOI log framework
5. Policy options with respect to [a] priorities among old and new project goals, [b] maximization of benefits for the poorest segment of the target population, and [c] methods of reducing administrative problems and reconciling short-term infrastructural goals with the need to achieve higher levels of peasant autonomy in the long term.

In order to avoid a purely ideological discussion - and purely idealistic policy recommendations - I have integrated some of the work on these areas into various chapters of this report. This was done to make sure that all major conclusions would have a sound empirical basis. The seventh chapter, therefore, will only present the results of this policy-oriented analysis, without having to reintroduce all of the supporting empirical evidence.

Theory and practice should be distinct entities, but they should never be far apart in the case of development work. One of the functions of any evaluation is to remind development practitioners in the field of the wider ramifications of their work. In this sense, an appropriate evaluation will also provide a training function for project staff. This reduces its "objective" character to some extent - scientists would say that the research procedure contaminates the findings - but it increases the usefulness of the evaluation in the overall development effort. I have tried to preserve a good measure of objectivity in two of the activities constituting my evaluation, namely, the surveys on nutrition and on project impact. In other activities, however, I have wholeheartedly made room for an evaluation which is more than just neutral observation. I have felt free to discuss problems with project staff and occasionally even to suggest possible solutions. This may have affected the "presentation of self" of some staff members and their reports on past activities. But the issue in my view was neither pretense of "value-free research" nor statistically "pure" design. As a

field researcher I have always held back my own opinions and evaluations, but as an analyst it would have been irresponsible of me to have hidden the fact that I have some deep convictions concerning development work - convictions which I have found to overlap with some of the broader statements in the PDCC project paper. Put differently, an evaluator should not be accused of a "preconceived idea of what development should be" [Bouthillier, 1983: 1] merely for having entertained certain notions and views, but ought rather to be selected on the basis of, among other things, his ability to articulate, test, and reformulate his standards for development work. I have evaluated the PDCC in terms of its own stated objectives and the objectives stated by its chief sponsoring agency, the Save the Children Federation. Both would largely agree with the underlying standards I have applied above and beyond their stated objectives, namely that development work should strive for [1] the satisfaction of basic needs, [2] increases in productivity, [3] higher levels of peasant autonomy, and [4] an egalitarian spread of benefits. Individual projects and activities will always concentrate on one or the other of these standards, but such projects must not be allowed to sacrifice one to the other completely.

There have been two previous evaluation of PDCC: by Bros [1983], and by Woodson [1983]. I have drawn on their work in the description of project history. It should be noted, however, that the main difference between the present evaluation and theirs is that I had more time and resources at my disposal. I have thus relied less on the testimony of "key informants" and project staff. Instead, I have expanded the scope of the evaluation to include an empirical assessment of project impact upon the target population. To give just two examples: like Bros, I have conducted a survey of peasant recipients of project benefits, but I went beyond Bros by designing it to be representative of the entire target population. Like Woodson, I recorded the opinions of town leaders in lengthy formal interviews, but again, going beyond Woodson, I gathered considerable empirical evidence to test their claim

that the project had "done nothing" over the past two years.

One of the key problems - some would say assets - of PDCC is its reliance upon Community Councils. This dependence ties the project to a particular period in foreign aid history.

Priorities in development work seem to come and go. After productivity increases in the 'fifties, we have seen "rural growth centers" in the 'sixties, and then "institution building" in the 'seventies. The late 'seventies were to some extent the era of community organization - in Haiti such organization was frequently identified with the conseil d'action communautaire [CAC] and the groupement communautaire [GC]. PDCC came about during that era and bears its stamp accordingly. It makes use of the GC as its basic vehicle for implementing change. GC members were frequently hired during 1981 and 1982 for infrastructure work, drywall construction, and the like. It was hoped that they would continue the work on a voluntary basis thereafter.

The reliance on community councils raises several questions. First, are these organizations capable of stimulating and carrying out development work? Second, are they led by or representative of a particular group or stratum? Third, can they be trusted with distributing goods to the poorest segments of rural society? Fourth, do they have the potential to continue to act as change agents once the project has concluded?

There is no point in avoiding this thorny issue. The project paper virtually consists of a long list of twenty-three goals to be achieved, most of them involving the mobilization of the groupement communautaire. An evaluation, therefore, must assess each of these goals, one by one, and determine which have been reached and to what extent groupement participation was instrumental in their attainment. Such participation can take many forms, from the simple construction of a labor pool all

the way to autonomous planning and implementation of an activity. Groupements can thus be active partners and leaders on the development front or serve as passive conduits of resources. I shall evaluate their role and performance in Chambellan in a separate section.

To conclude this introductory chapter, the following points can be restated:

1. The evaluation has a triple purpose, namely, to assess objectively the achievements and impact of PDCC, to serve as a stimulant and catalyst of reflection among project staff, and to elaborate policy options for the next funding period.
2. The standards against which project achievements are measured are those stated in the project paper in addition to those - explicitly stated - of the evaluator. While they are distinct, they are nevertheless in no way contradictory sets of standards.
3. Since community councils are used as the principal vehicles for reaching the project's objectives, their role and functions deserve special scrutiny. The identification of a social category ("community") with a political organization ("Conseil d'action communautaire") still requires empirical verification.

## 2. PROJECT HISTORY AND CURRENT ORGANIZATION

### 2.1 The Period Preceding AID Financing

#### 2.1.1 The Baseline Study

Most authorities suggest that development work should be preceded by a baseline study designed to assemble a basic physical, social, and economic documentation of the target area and assess its needs and potential in some detail. PDCC did exactly that. Over a period of almost one year, and with a considerable budget [approximately \$40,000], a study team including five major contributors and dozens of minor ones was assigned to investigate the demographic characteristics, housing, health, political and social structure, agricultural production, peasant organization, and many more topics. The published volume which resulted from this effort [Fanfan et al., 1980] is more complete and more advanced in terms of data quality and analysis than most baseline studies for small and medium-sized development projects.

The decision to allocate such considerable human and material resources to a baseline study produced a side-effect which cannot be ignored, namely, the raising of local expectations. Interviews, community meetings, and gatherings with local leaders covered the whole commune, from the town of Chambellan to the most remote mountain regions. This high visibility, together with the obvious expenditures, identified the project as a major resource even before the first interviewer inquired about "local needs". When this inquiry did take place, the interviewers reportedly expressed their hopes that something could be done to satisfy those needs. In other words, the baseline study was understood as a promise for relief, jobs, services, and money.

Besides this "promise" implied in the scale of activities, this otherwise excellent baseline study contained some other drawbacks, too. The presentation of results was somewhat too scholarly and abstract

for the use of development practitioners, and the more specialized follow-up studies that had been planned were not carried out. [The only such study was in fact done by the Groupe de Recherche sur le Developpement, see Duperval et al., 1980]. Another flaw in the baseline study was one involving the design of the study itself: since no household-level and localite-level data were left behind, before-and-after comparisons are possible at the aggregate level only. Project impact is thus difficult to measure in a reliable way now that five years of activity have passed.

### 2.1.2 Hiring of Haitian staff

Once the project initiated operations, the difficulty in finding competent local Haitian personnel became evident quickly. Rather than attempting to "hire away" proven professionals from urban locations and projects elsewhere in Haiti, PDCC opted for "staff with less training but more of an affinity for rural living" [PP: 4]. This was certainly a commendable move and it has worked out well in the long run. This decision did, however, burden the project with a considerable amount of staff training responsibilities and with a less than optimal performance by some staff during the start-up phase.

### 2.1.3 Summary of activities

Many of the activities which later were to become major and even dominant were actually begun before 1981. The list includes: [1] infrastructure work - community centers, the potable water system for Chambellan, school construction and renovation, the upgrading of the town square, and road construction; [2] work in agriculture - demonstration plots, agricultural education in schools and 4-C groups, and a tool bank; and [3] a variety of other activities - community development training, a nutrition education center, tree nurseries, small crafts projects, and the supply of musical instruments for a local band.

To summarize, then, at the end of its first year of operations, PDCC is already a diversified project, branching out with a small staff into a great number of activities. More construction is underway in Chambellan than the town has ever seen at any previous time, with the possible exception of the construction of the Catholic Church. The road of "integrated" rural development is the chosen theme of the project, which implies the expenditure of resources in many different sectors.

Compared with the high visibility of the projects under way, community development, especially the work of strategic groups described in the project paper, does not appear at this early stage to be all that important. The documentation of this aspect is incomplete, but it does allow for the conclusion that the building-up of a grassroots organization was not a high priority item of the project at this time.

The most significant achievements of PDCC during the start-up phase are probably to be found in [a] the hiring and training of an almost exclusively Haitian staff, [b] the considerable local enthusiasm that has been created; [c] the progress made in some "bricks and mortar" aspects of development work, and, as part of this, [d] the installation of a potable water system of great benefit to all population strata in and around the town of Chambellan. On a more critical note, one would be obliged to mention that PDCC was probably overextended from the very beginning and, having raised unrealistic expectations, would later have to cope with some expression of popular dissatisfaction.

## 2.2 Three Years of AID Co-Financing

AID financing commenced officially on April 1, 1981. Practically, however, the 1981-82 year was largely funded by Save the Children, and retroactively reimbursed up to the AID commitment level. This administrative funding procedure would seem to have had no effect on project operations.

The budget years 1981/82, 1982/83, and 1983/84 are the object of the present evaluation; hence the subtitles used in this section. But the reader should realize that they are really just a continuation, on a larger scale, of work which was already under way when "year one" officially began.

Two more things should also be kept in mind. First, AID financing accounted for roughly one-third only of total project costs. AID's decisions over the continuation of its support beyond the initial three-year funding period will thus affect no more than about one-third of PDCC operations. Over the three years, PDCC never spent its full budget, which explains the opportunity to cover the activities of the summer of 1984 with funds remaining from previous years. Secondly, the collaborative agreement between AEDC and the Department of Agriculture was already in effect when AID appeared on the scene; the document of that agreement actually dates back to June, 1978. Whatever the problems or merits of that agreement, it received the explicit support of AID by being recognized in the first paragraph of the subsequent agreement between AEDC and AID which is reflected in the project paper [June, 1981].

#### 2.2.1 Year One [1981/82]

Several significant changes in personnel took place during Year One. C. Bouthillier succeeded Y. Marsolais as Canadian co-director, and Agr. Naval followed Agr. Binette as Haitian co-director. G. Ewald took over the administrative tasks at the Port-au-Prince office and D. Clermont assumed those tasks in Chambellan. The work in the agricultural sector and with strategic groups was led by G. Brice. Overall the staff was growing in both size and in levels of experience.

The groupement communautaire [GC], under the umbrella organization of the Conseil d'action communautaire [CAC] has now become the principle and obvious basis for implementing project goals. The existence of

12 strategic groups is also mentioned in the annual report, but compared with the GC these organizations appear small and relatively weak. The training of peasants, following the ONAAC [and, therefore, the CAC] model, advances such work with both new hierarchies being created and solidified.

In terms of construction, activity became intense and served to absorb much of the energies which might otherwise have been channelled into other pursuits. Three of the five planned social centers were completed and the slaughterhouse in Chambellan came close to completion. The école nationale construction program [four classrooms] came to an end and one principal building and a large depot were inaugurated at the new project center in Nore.

Other significant events during Year One were the arrival of a turbine intended to supply electricity to the town of Chambellan [PP: 9], the enlargement of the potable water system to include two more springs and a total of 12 public fountains, and the relocation of most agricultural demonstration activity away from the farm at Noré and into the peasants' own gardens.

At the end of Year One, PDCC was well established as the largest organization and employer the commune of Chambellan had ever seen. Its scope of activity was very considerable, ranging from construction and erosion control via education and peasant organization, to many aspects of agricultural extension. Collaboration with the government of Haiti took two forms - the presence of an agronome de district on site as a project co-director and the stimulation and use of CAC-groupements which, through ONAAC and CONAJEC, which constitute low levels of the country's government hierarchy.

### 2.2.3 Year Two [1982/83]

Projects evolve over time and some of the problems PDCC was compelled to deal with in the second year had grown slowly from roots located in

the original project design. I shall discuss these problems one by one below; for the moment let me state only that, in hindsight, Year Two appears as a year of growing doubts and crises on the one hand, and decisive action on the other.

Despite the frequently collegial style of decision-making and apparently consensual procedures, conflict erupted among the leadership and culminated in some harsh words in the annual report. Personality differences seem to have played only a minor role in this instance. At the heart of the conflict was an array of structural arrangement which would have generated tensions even under the best of circumstances. To name only a few:

1. Differences between the Haitian and expatriate co-directors in terms of influencing project activity. The former resided at the PDCC site while the latter always remained a visitor. Both had outside activities and loyalties in the department of agriculture and AEDC, respectively, but with greatly different career implications. Many projects have suffered from differences in qualifications, attitudes, and loyalties between expatriates and "local counterparts"; PDCC certainly experienced at least a share of this.
2. The tension between Haitian staff and expatriate staff was at times significant, leading to some of the problems of communication and low morale mentioned in previous evaluations.
3. The difficulties of women in a traditional male-dominated society. At PDCC, these difficulties were probably more pronounced since the project had hired two expatriate women of rather progressive convictions [concerning the status of women], a fact which may have produced insecurity on both male and female sides as time went by.
4. The crowded living conditions at the PDCC residence [before the completion of the second building in February, 1983] must have strained nerves to a considerable degree.
5. The tensions between town "notables" and project staff. This was always a concern but one which was to become more significant because of the unrealistically high expectations the project had created in the early stages.

Some of these difficulties can be expected to be encountered at many project sites and several problems were virtually unavoidable at PDCC. They have, however, been met with reasonable accommodations much more often than they have given rise to open conflicts. It is to the credit of PDCC that conflict was limited and that work on the project did progress throughout the 1982/83 year; but the year must at times have seen PDCC go through difficult periods.

Profiting from hindsight and from an outsider's uninvolved position, I have come to the conclusion that there are only two changes which might have made a significant difference in Year Two. First, one could have located the executive power which really counts - i.e. financial control - in Chambellan. Port-au-Prince was too far away in many senses. Second, one could have made a decisive effort to break the cycle of high expectation and delivery of results; autonomous rural development was difficult to achieve as long as the project was identified with the delivery of foreign resources upon the advice of local notables and a representative of a government agency [DARNDR].

Despite some failures noted in the second annual report [concerning the turbine installation, the fibrocement experiment, and a few other activities], Year Two also saw significant successes in the fields of road construction, agricultural demonstration, formation of peasant leaders, tree nurseries, fishpond construction, and several other activities. Section three of this report will discuss these in a more systematic fashion. But the most significant change may well have occurred in the one aspect of PDCC which I have presented as having been the most problematic: staff organization. The crises of Year Two led to the re-assignment of all three persons supplied to PDCC by the Department of Agriculture - an animator, a technician - and, during Year Three, the co-director.

### 2.2.3 Year Three

Year Three must be considered to have been a turning point in the history of PDCC. Several events of critical importance took place which together transformed the organizational basis of operations and the options for future work. They are:

#### Non-renewal of the AEDC-DARNDR contract

The Department of Agriculture is a large and lethargic organization, and to be linked with it in a formal way has meant to accept its unimpressive work standards and its long tradition of unproductive contacts with the rural population. To share executive power with one of its District Agronomists meant policy ambiguity, conflicting loyalties, and adoption of its unimaginative approach to development. PDCC let the DARNDR agreement run out and noticed with relief that the government made no initiatives towards its continuation. The present director is no longer a co-director and it is difficult to imagine a return to the condition of sharing power and responsibility formally with the host country - a condition which had profoundly marked PDCC during its first years. [The agreement had covered a five-year period starting in October, 1978.]

A new director [Mychelle Tremblay] was chosen to take the place of the previous one [Claude Bouthillier] whose contract had come to an end. This meant that a new person, not linked to the factions and conflicts of the past, could feel free to give PDCC some decisive new impulses, using her personal energy and the good will of the population for the restructuring of the project.

Revamping of the organizational structure was one of the highest priorities of the new director. This was easy to accomplish at the top. Since AEDC is now the only partner in charge of the project, the structure of decision-making and accountability now points to one person only. Questions of legitimacy and ambiguity are no longer likely to arise, and the various staff members now have a very clear idea of the extent and limits of their responsibilities.

The structuring of project activities in three large groups [agriculture, education, infrastructure], headed by three individuals of proven competence in these large fields, should clarify both job descriptions and everyday operations. It is noteworthy that this "réorganization" was possible only because PDCC had decided two years earlier to hire staff locally and upgrade staff training levels subsequently. Two of the three section leaders are products of this far-sighted decision.

Several of the problems of the past have been set aside.

The fiascos with "appropriate technology" [fibrocement roofs, Lorena stoves] will not be repeated. The center construction is completed and the building operational; delays and cost overruns and the truncating of the original plan are no longer issues to strain nerves and upset interpersonal relations. The nutrition center is long gone. Alphabetization will start again - if at all - on an entirely new basis.

The list of achievements in Year Three is respectable although difficult to interpret. As of this writing, no annual report has been formally submitted or analyzed. Further, the one which does exist [Brice, 1984] is little more than a descriptive account made by field personnel. The work in infrastructure projects, education, agriculture, and animal husbandry has progressed normally, though not spectacularly, while some of the work with groups such as family promotion, literacy campaign, and rural youth program seem to have suffered occasionally from low attendance.

The cooperative movement, begun in 1982, advanced to the point of [1] having deposited the necessary documents for obtaining official recognition; [2] having organized a very significant proportion of the farmers; [3] having an organization [CosHainault] with some experience in administering small projects; and [4] having an organization [COPCCD] with significant external contacts and the potential to improve the cultivation and marketing of the area's chief export crop - cacao.

This success should be seen in its proper dimension. The two organizations are still weak and almost totally dependent upon financial, logistical, and administrative support from PDCC. But this is nevertheless the first time any peasant organization of this kind has been attempted in the area, and the experiences involved in such organizing activity hold significant potential for future work.

Looking back on year Three, it appears that change has been the most important of its characteristics - change for the better on practically all accounts. Some of the changes had already been initiated by the former director while others must be credited to the current one. At the present time, PDCC probably has a better organizational structure, an array of activities involving fewer risks, and greater flexibility in structuring its activities than it has enjoyed at any time since 1981. The crises of Year Two have thus resulted in transformations during Year Three - transformations which may allow PDCC to work more effectively towards its original goals.

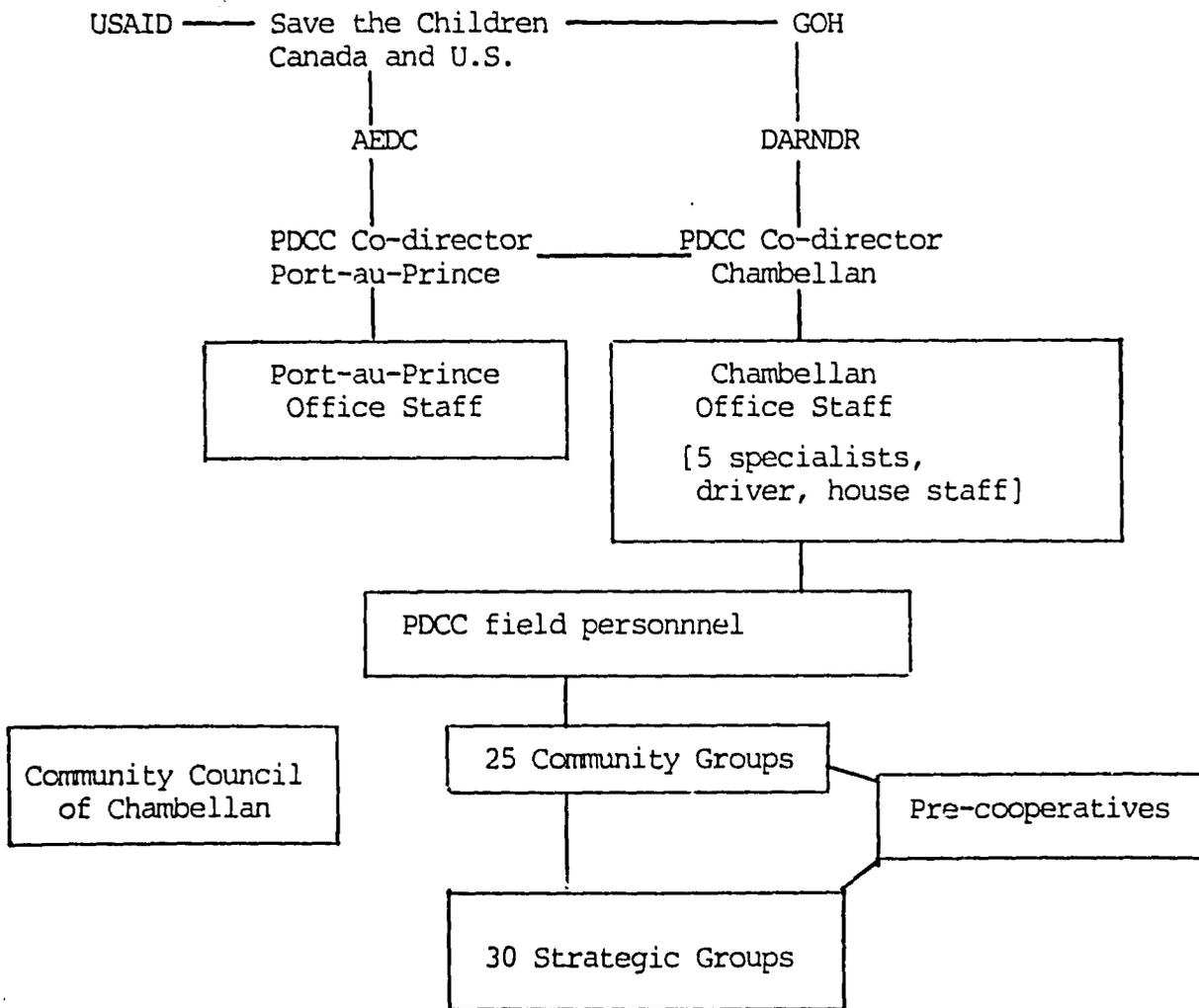
## 2.3 Current Organization

### 2.3.1 PDCC structure

The administration of PDCC has undergone significant transformations over the last twelve months. The last evaluation presented it as a rather confusing structure. The figure on the following page summarizes "Chart 1 - Administrative Organization at PDCC", [Woodson, 1983: Annex 4].

Key elements of this administrative structure were the following:

- [1] that expatriates - whether in the U.S. or Canada or Haiti - could carry out administrative functions only via Haitian intermediaries;
- [2] that community groups appeared on the lowest levels of a hierarchical structure; and [3] that it was not clearly specified through which channels the Canadian director was supposed to oversee matters.

Figure 2-1 PDCC Administrative Structure in 1983

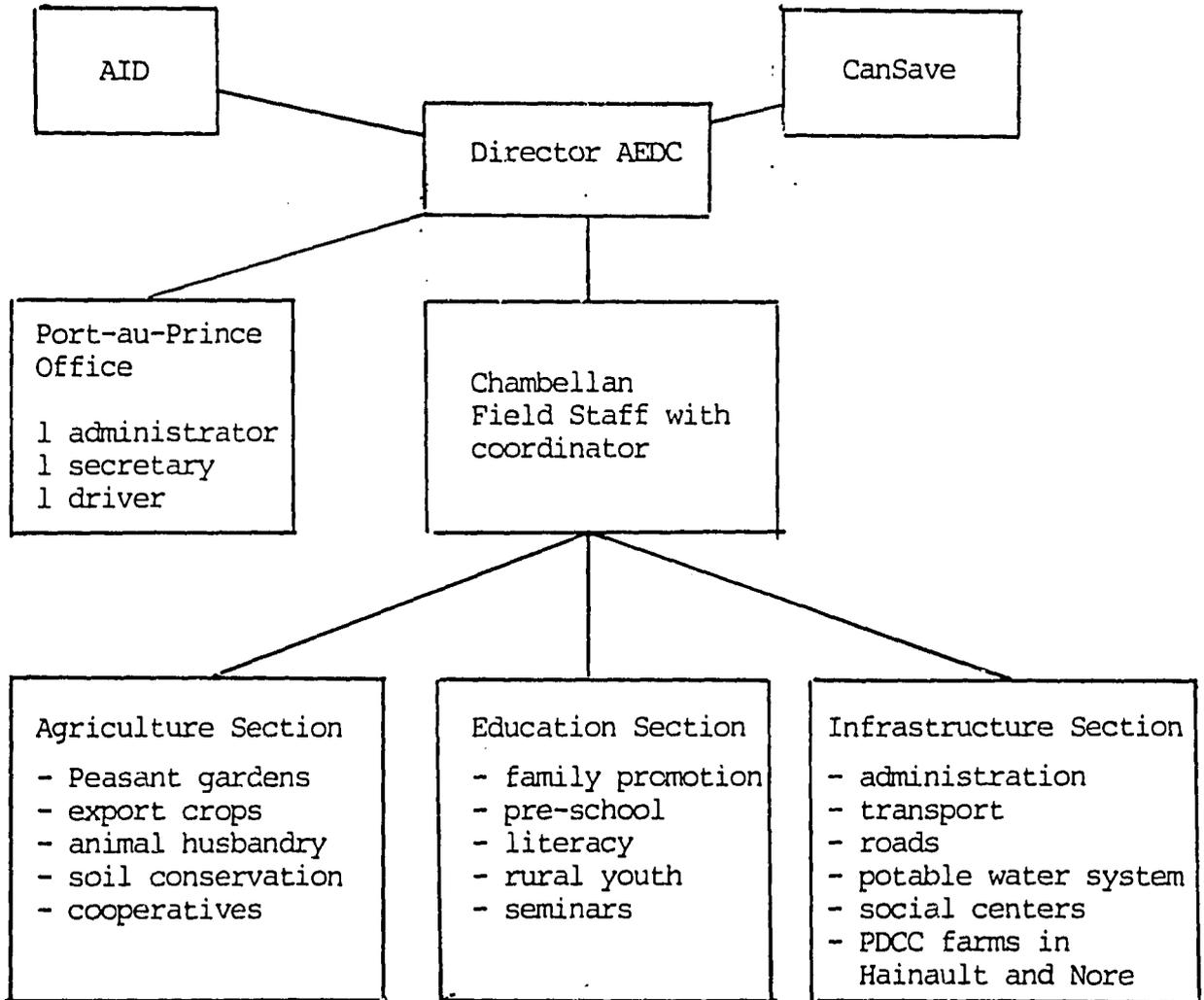
All of these elements are only partial expressions of the way PDCC seems to have operated in reality. The role of DARNDR in particular appears to have been rather less decisive than the chart makes it appear and that of the Canadian co-director rather more so. But, overall, Figure 2-1 does provide a good approximation of the project's administrative structure during Year Two.

The current administrative structure is much simpler and clearer than the previous one. Executive power is concentrated in one director who is also the focal point of relations with outside agencies. The three section heads are distinguished according to fields of activity rather than administrative units [such as "field staff" or "community groups"] which gives them a certain amount of autonomy and avoids the impression that the same individuals - e.g. the coordinator or "polyvalent" animators - are supposed to be competent in the most diverse fields of activity.

I have omitted all community groups from the chart in order to avoid the impression that they are subordinate units of PDCC. While it is true that they are recipients of advice and resources, they are nevertheless autonomous in the sense that: [a] some of them were in existence before the advent of PDCC; [b] many of them hope for continued existence beyond the life of the project; [c] none of them are obliged to take orders from PDCC; and [d] all of them are at least theoretically eligible for support from other organizations. They are targets and in some sense products of project activity, but they are in no way administrative units of PDCC. I cannot determine whether this was fundamentally different in 1983 or just a misconception by staff members and/or the evaluator. All I can say is that the present PDCC organization is probably closer to the original project paper guidelines than Figure 2-1 made it appear.

The current administrative structure contains a few constraints which may not be evident from the following Figure 2-2; but they are worth

Figure 2-2 Current PDCC administrative structure



mentioning nevertheless. They are:

1. The relationship with AID may well need further clarification in the long run. For example, the legitimacy of the present evaluation has been questioned and with it the extent to which AID personnel can and should take a close interest in project operations. Would it be better for AID to be no more than a disinterested donor? In other words, should the financial flow chart [USAID - Save the Children Federation (U.S.) - Can Save - AEDC - PDCC] be identical with a chart of administrative linkages? The AID - AEDC agreement specified only that "the project management team will meet with AID personnel to discuss the [implementation plan for the following year] in detail, and the relationship between the proposed plan and the concrete accomplishments of the preceding year" [quoted from Woodson, 1983, Annex 2: 54]. The exchanges between the two agencies have clearly gone beyond this and it may well be in everyone's interest to clarify and intensify the nature of relationship in the future.
2. The director is heading three distinct units at the same time: PDCC, the Port-au-Prince-based AEDC, and some other CanSave activities [including the BATI and Chauffard projects]. This was probably part of the reason why previous directors resided in Port-au-Prince, the other part being that a co-director was stationed in Chambellan and in charge of activities there. At this time, however, the rationale for keeping the director in the capital city is weak. There is no longer any executive in Chambellan - the coordinator is neither trained nor empowered to be a real executive - and the other AEDC activities in Haiti are so minor in terms of budget and time required that they in themselves justify neither the existence of a Port-au-Prince office nor the presence of the PDCC director far from PDCC.
3. Since the present administrative setup is still relatively new, some details may still need to be worked out, e.g. what is the precise role of the coordinator - does he have authority over

all three sections? What is the nature of the assignment of animators and other field personnel to the three sections - is it permanent, part-time? Finally, what about the relations with community groups - are they the province of the coordinator or of everyone?

There is no doubt that PDCC now has an administrative structure which is both clear and easily expandable. As long as the present authority structure and the relative autonomy of the sections are both maintained, confusion can probably be avoided and much of the staff's potential contribution can be realized. Whether the project can function as smoothly and efficiently as it should, however, will to a considerable extent depend on its ability to locate executive power on site in Chambellan.

### 2.3.2 The Groupements Communautaires

Over the years, PDCC has greatly stimulated the creation and growth of community groups under the CAC [Conseil d'action communautaire] model. It is hard to say exactly how many of these groupements owe their existence solely to PDCC and/or the expectations the project had created, but it can safely be estimated that the great majority of them would not be in existence today had PDCC not come to Chambellan.

Estimates for CAC groupements in 1978 vary between 2 and 7 in number; all observers agree that they were not very active and held no more than a few hundred members. In 1983, Woodson [1983: 32] reported that there were 25 groupements, and in 1984 I counted 24 of them in PDCC's own documentation. The largest number of CAC groupements was represented at a meeting in 1983 in Chambellan [sponsored by PDCC and ONAAC] at which 98 delegates represented 49 groupements.

The PDCC documentation does not make it easy to estimate the total number of CAC groupements. Membership figures are provided for only 6 of the 24 groupements and even in these cases there is an occasional description of "members" and "active members", the two figures not necessarily being identical. The following table below is what can be culled from that documentation:

Table 2-1 CAC groupements working with PDCC in 1983/84

<u>Noyau</u>	<u>Names of groupements</u>	<u>Membership</u>
<u>Hainault</u>	1. Hainault	156
	2. Julie	115
	3. Glacis	n.a.
	4. Fond cès Bois	76
	5. Basin David	53
	6. Paille	n.a.
	7. Rigrosse	n.a.
	8. Piteau	n.a.
	9. L'état	n.a.
	10. Counoubois	n.a.
<u>Lavallette- Grand Fond</u>	1. Lavallette	n.a.
	2. Grand Fond	n.a.
	3. Mathieu	n.a.
	4. Terre ROuge	n.a.
	5. Daniel	n.a.
<u>Dejean-Shada</u>	1. Noré	n.a.
	2. Déjean	n.a.
	3. Shada	n.a.
	4. Kounouk Dejean	n.a.
	5. Boukan Milien	n.a.
	6. Mahotièrè	n.a.
<u>Commence</u>	1. Commence	n.a.
	2. Massica	n.a.
	3. Marie Gorin	54

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According to the documentation, the average size of those CAC groupements whose membership is known is about 82. If this figure can be extrapolated to all 24 groupements, then the total groupement membership can be estimated to consist of 1968 peasants.

Another source of information is the annual report submitted in 1984 by the coordinator [Brice, 1984: Annex 4]. It contains numbers for 22 out of a total of 25 groupements, with an average of 93 for a total of 2026 members.

Finally, we can estimate the CAC groupement membership on the basis of the project impact survey presented in section four of this report. It is not necessarily more reliable than the membership lists which were the basis of the two previous estimates, but it comes to a total which is slightly higher [1]. According to the survey, some 2465 members are involved in the CAC groupements. This represents more than one-half [55 %] of the total adult population of the area [4491 persons 20 years of age and older].

I shall for the following paper accept the latter as the best estimate. Not only is the discrepancy between the two PDCC sources disconcerting, but the 1984 report also contains population estimates which are so far off target - by a margin of 67% - that it is better to stick to one source which combines recent groupement participation data with reliable estimates of the adult and total populations.

So far we have established one thing clearly: the CAC groupements have a very large membership and comprise a majority of the adult population. When asked about the intensity of participation, the responses indicated the close to 80% of all members had both met and worked with the

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[1] The survey figures appear somewhat high in all four categories of peasant organization. This may be due to the fact that respondents have learned to identify PDCC with CAC and the survey with PDCC. They may, therefore, have given the interviewers on occasion what they thought the interviewer might want to hear. By and large, estimates deviate by no more than 20% from those given by the staff. Objective and subjective assessments reach a similar result here.

groupements at least once during the previous four months. These figures would seem to speak for themselves. There is scarcely another organization in Chambellan which can claim to mobilize as large a part of the population. Whether the CAC groupements are representative of all peasants or not, they are clearly a mass organization which has its uses. That they have expanded so greatly in response to the PDCC presence indicates that they could not have existed in their present form without the project and the support it provides. They need PDCC and PDCC needs them.

### 2.3.3 Project-sponsored groups

According to the project paper, the CAC groupement was not to be the primary base of PDCC activity. Rather than relying upon this established group, the project was to recruit from this base the members for its own grassroots organization, the groupement stratégique, and work primarily with this smaller form of peasant mobilization. This is not what in fact happened. Most of the achievements noted in the next section [3] of this report were found to have been planned together with and came about through cooperation with CAC groupements, and not through the strategic groups.

Nevertheless, the strategic group won a certain importance with the arrival of G. Brice who is to be credited with organizing most of the perhaps three dozen strategic groups PDCC has supported so far. Since the groups are small [generally consisting of a dozen peasants], they have potential for collaboration, equality, and learning which is much greater than that found in CAC groupements. In fact, they seem uniquely suited to the task of mobilizing the poorest strata and providing them with a measure of dignity and autonomy denied them by larger, hierarchical organizations.

The number of strategic groups in existence today is quite impossible to determine. Last year's evaluation spoke of 30 such groups, but my

own interviews in 1984 lead me to doubt this figure. As a matter of fact, many groups seem to have folded after having attained their initial objectives and it is entirely possible that more than 30 have existed over time and in sequence. At present, PDCC documentation lists 20 strategic groups in existence.

Whatever the actual number of strategic groups currently in existence, the survey has determined their combined membership to be 531 peasants. This represents 21.5% of the membership of the CAC groupements, or 11.8% of the total adult population. The figure may include some members of older or near-defunct groups, but most of the members are said to have an active status. As mentioned earlier, over 80% of members claim to have met and worked with their strategic group at least once over the course of the previous four months.

Another one of the groups sponsored by PDCC is the "Coopérative de Service Hainault", the project's first venture into the difficult area of cooperative movements. It is linked in some ways to the CAC groups; e.g. the president of the Conseil d'action communautaire presently serves as treasurer of Cos-Hainault. Despite the considerable logistical, organizational, and financial support received from PDCC, it is fair to say that this cooperative is no more than the initial form of a solid movement. It has invested in land, a corn mill, and a pair of oxen with plows, but none of these investments can be considered profitable thus far. The accounts submitted in April, 1984, must be considered more of an exercise to train the cooperative's administrators than a complete accounting of activities and transactions.

The Cos-Hainault venture has some real potential in terms of services not presently rendered to small peasants in Chambellan. Once the corn harvest will be in, its corn mill will play an important role, and when a "décortiqueuse de café" will have been added, small producers will be able to obtain a slightly higher return on their coffee output. The plans

for the 1984/85 year include a corn storage facility, a store for agricultural inputs and articles of basic necessity for households, and a bakery. Any one of these will be a significant achievement, but since planning had not reached a sufficiently advanced stage in May, 1984, I cannot comment on either their economic feasibility nor their chances for being successfully implemented.

According to the survey data, Cos-Hainault has some 170 members in 124 households. These figures should not be confused with exact membership counts since the small numbers involved will magnify the sampling error. Nevertheless, they are probably not more than 20% off the mark. The membership is distributed among 10 localities but concentrated in Hainault, Cadet, Congo, and Chambellan. Although the cooperative will in the long run serve the whole project area, so far it is concentrated in those localities where PDCC has been active the longest.

Cos-Hainault has started a small credit program which has already benefitted a significant proportion of its members. The sums involved are so small, however, that the entire credit program is not making a discernable impact upon peasant operations and incomes as of yet.

A second cooperative movement, "CopCod" [Cooperative de production et commercialisation des denrées], is of even more recent vintage than Cos-Hainault. Its efforts are concentrated on cocoa and, to some extent, coffee, and it had only recently started buying cocoa for the first time. This organization receives significant support from MEDA, the Mennonite Economic Development branch which will provide both technical assistance for the production of cocoa and contacts with a buyer [Hershey's]. Since MEDA has the necessary contacts and experience - e.g. it is already supporting a similar cooperative in nearby Dame-Marie - it is likely that this venture will actually get off the ground. Whether CopCod will bring much of a change for the small producer, however, remains to be seen. The Dame-Marie cooperative is dominated by the

local speculators and the start of operations at Chambellan makes it appear that CopCod will be compelled to submit to their wishes, too, if it is to function at all. But even if the commercialization aspect fails to bring about a substantial change in the status quo, the production side will certainly profit. Cocoa production in Chambellan can be greatly increased by adopting relatively simple changes in production techniques, and this will benefit the smaller producer as well as the larger one.

Membership in CopCod, according to the survey, includes 391 individuals in 284 households. [As in the previous case, these numbers are only an extrapolation from a sample]. These figures come from 23 of the 25 localities and are not concentrated in any one of them. In contrast with Cos-Hainault, CopCod is thus an organization with a very broad geographic basis. Its potential impact upon the project area is thus considerably wider.

At the time of this writing, CopCod is not yet fully operational. Its first attempt to buy cocoa from all producers at a good price was successfully sabotaged by the local speculators - who make up one-third of the membership - by virtue of the speculators' doubling of their purchase price within a week. It is thus not certain whether CopCod will be able to live up to its commitment to the foreign buyer without immediately submitting to the dictates of the local speculators. So far the peasants have a potential bonanza in their grasp, but unless CopCod makes major changes soon, it will not last long.

#### 2.3.4 Project sponsorship and peasant mobilization

PDCC has been instrumental in the creation of several other peasant groups, especially the groupements sylvicoles of the Pan-American Development Foundation mentioned elsewhere in this report. But its major efforts have clearly gone into the groupements, the strategic groups, and the two cooperatives. If project success is measured in

terms of the mobilization of the population into collective activities, then it is these groups which will have to serve as criteria for such an evaluation. None of them would be likely to survive beyond the project's termination as things stand at present, but all have significant potential for helping the population to take care of its own needs without outside dependence. Most of them can be expected to survive as long as the project lasts.

What have been the effects of project sponsorship upon these groups? They can be summarized in the following way:

- All of the peasant groups owe their existence almost entirely to PDCC. This includes most of the CAC groupements.
- All of the groups have elected leaders who are frequently women in the case of strategic groups and always men in the case of the other groups. Collaboration with PDCC is a principal task of these leaders.
- Local animation work has played a significant role in the creation of most groups. Membership is thus usually concentrated in localities of greatest PDCC activity. CopCod, however, has a widely dispersed membership which indicates that its organization responds to a local need that is well recognized even without PDCC animation.
- There is significant overlap of both membership and leadership of the various groups.
- By means of these groups, PDCC has creat~~ed~~ed a variety of models for collective participation. The CAC groupements are expressions of an existing political hierarchy designed to extract labor for goals defined by leaders. The cooperatives are also dominated by local leaders but have started to offer services - usually at a financial cost - which may otherwise not be available to small farmers. The strategic groups engage in manual labor collectively and thereby increase incomes of all their members in a relatively egalitarian way.

PDCC has clearly not had just one discernable effect upon peasant organization at Chambellan. But the most significant effect may well be that peasant mobilization has taken place at all. Very impressive numbers of local residents now gain more of an understanding of, and sometimes a say over, matters that affect their lives directly. The following table summarizes these numbers:

Table 2-2 Numbers and Economic Status of Individuals and Households Participating in Peasant Organizations with PDCC Sponsorship

<u>Organizations</u>	<u>Individuals</u>		<u>Households</u>		<u>Mean Economic Status<sup>1</sup></u>	
	<u>No.</u>	<u>% of adult population</u>	<u>No.</u>	<u>% of all households<sup>2</sup></u>	<u>Members</u>	<u>Non-Members</u>
CAC groupements	2465	54.8%	1113	77.8%	5.2	4.5
Strategic groups	531	11.8%	318	22.8%	5.6	4.9
Cos-Hainault	170	3.8%	124	11.9%	6.4	4.8
CopCod	391	8.7%	284	19.9%	6.5	4.6

<sup>1</sup> Economic status is measured as a household characteristic by using a composite scale holding 25 items and ranging from 1 to 10. The population mean was set at 5.0.

<sup>2</sup> Households having at least one participating member.

Did the project succeed in incorporating residents of all strata equally? This would only seem to be partially true. All four types of organization in Table 2-2 above show a higher economic status for members than for non-members. The difference is small insofar as CAC groupements are concerned since they incorporate the great majority of all households. It is also small for the strategic groups since these groups favor manual labor and female membership - they are thus no place for power-

ful male leaders. For the two cooperatives, the differences are more pronounced with 1.6 for Cos-Hainault and 1.9 for CopCod.

The conclusions from this section are the following:

1. PDCC has greatly stimulated participation in the CAC groupements. This participation is open to all social strata but the higher strata participate somewhat more than the lower strata.
2. Membership in the two cooperatives in Cos-Hainault and CopCod is disproportionately drawn from the better-off parts of the population.
3. The organization, membership, and leadership of the four types of organization are still very much dependent upon PDCC. The fact that membership is economically selective to a certain degree must therefore be understood as an outcome endorsed or at least accepted by the project.
4. Since PDCC is the driving force behind the four organizations, it is conceivable that the project could achieve a more equal form of participation by all economic strata.
5. Overall, the project has been successful in mobilizing a significant proportion of the local population. In all but the strategic groups, this mobilization had taken the form of large groups dominated by local leaders. This does not mean, however, that there are no good uses for these groups. They have in fact started to act as conduits for services and infrastructural improvements which the small strategic groups would have been quite incapable of delivering.

### 3. GOAL IMPLEMENTATION

Since this report serves as an "end of project" survey for the 1981-84 period, I shall present a summary of goal implementation organized by sector rather than by budget year. Even so, one has to realize that PDCC was already an operational project before the initiation of AID funding. Two of the twenty-three activities listed in Table 1 of the project paper were essentially completed by the time AID support commenced in 1981. They will nevertheless be included here, as they were in the project paper.

Two important activities are not found on the list but will be reported on briefly anyway. The construction of the center was excluded from the AID funding agreement [Woodson, 1983: 9 and Annex 2] but for a certain period it absorbed much staff time. It has attracted a considerable amount of local attention and is, whatever its merits, the largest investment PDCC has made to date. In Chapter 6.4, we will examine it briefly.

The second activity not on the PP list consists of the formation, support, and monitoring of peasant groups. Since they are the basic vehicles for reaching PDCC's goals, much of the time of staff and animators is devoted to them. These activities are critical to the success of the project and for this reason have been included in this report. I deal with them in Chapters 2 and 6.

#### 3.1 Rural Infrastructure

##### 3.1.1 Penetration road construction

The "pick and shovel construction of a penetration road connecting three villages with the national highway" is variously referred to as the road to Boucan, to Carrefour Didier and to Anse d'Hainault. There

is some disagreement over its projected total length [between 18 and 25 km] and about the portion completed so far [between 5 and 7.5 km]. If one is to believe project staff reports, according to which 80 men worked on it for 3 years, 6 hours per day, 20 days per year, then one arrives at an estimated total of 29,000 man-hours which this road is supposed to have absorbed thus far.

These numbers are probably exaggerated. In 1984, for example, only one day had been worked by early May and only 35 workers showed up for the whole day. Even if every remaining Tuesday of the year - some of which fall on holidays and many of which fall in the rainy seasons - were devoted to road construction, the total of 20 work days could hardly be attained.

Besides the road to Carrefour Didier, PDCC has been involved in the construction of smaller penetration roads and paths. Their current state is difficult to assess, but it is clear that several GC's have put them on their list of priorities. According to my estimate, the total length of such minor penetration paths that have been completed does not exceed one kilometer. Their importance in their respective environments [e.g. Mahotièrè] may nevertheless be equal to "the" road.

Work on the road began in 1980/81 with a feasibility study - of which I could not find any written report - and got off to a false start. Some 300 meters were built, but which led down an excessively steep slope and aimed directly at a house which could not be expropriated. A new roadbed was then traced and given approval by a foreign expert [Tores Mateo]. The road is of extremely simple construction, without either sand cover or canals, but uses an adequate technique [gabions] for the crossing of rivers and ravines. Even during the dry season it is barely passable, and then only by jeep and motorcycle. Further, definitely no more than 5 km have been completed. A bulldozer was used occasionally for particularly difficult sections of the road.

The low productivity of all community council work I have observed thus far, the frequent and prolonged work interruptions, and the low-level technology employed in this undertaking combine to make the road work a frustrating experience for everyone involved. The peasants receive no pay, when at the same time and in the same town they can earn \$2.50 per day on T.P.T.C. road improvement program. They support the initiative of groupement leaders but at the same time realize that profits from a road accrue to individuals in proportion to their ownership of land, trucks, and commercial enterprises.

Rural feeder roads are a necessity in a cash-crop oriented economy. They are normally paid for out of tax revenue. The "tax" in this case is being paid almost exclusively by small peasants. These peasants do derive some benefit from it in that some localities are linked more conveniently and the market of Chambellan is more easily accessible. But at the current pace, at least three more years of difficult and frustrating work lie ahead. In view of the fact that this is the PDCC activity which involves the most [10] groupements and peasants, some very serious thinking, planning, and management effort should go into it. The continuation of this activity should be questioned.

### 3.1.2 Installation of a hydro-electric turbine unit

The purpose of the installation of a turbine and generator was "to supply electricity to the village" of Chambellan. Thus said the project paper and the announcement of PDCC director Johnson upon her departure. If the intention of this sub-project was honorable, then what has been done for its implementation nevertheless proved inadequate.

A turbine was actually ordered, built to specifications in Vancouver, Canada, and shipped across the continent and stored in the PDCC warehouse - all this at a considerable cost. But it turned out to be a useless piece of equipment and probably the single greatest blunder of the project. Here is what went wrong:

1. Electrification was included in the project paper in the absence of an adequate feasibility study. The section on hydrography in the baseline study is exactly eight lines long:
2. The expectations of the local population were raised too early and beyond any reasonable limit. This proved damaging to the image of PDCC.
3. The only feasibility study I am aware of was done by the wrong person - the co-director - and at the wrong time - when there were rains. This study overestimated the water available from the Ariche source by more than 70%.
4. Instead of modest, off-the-rack equipment, PDCC opted for a custom-built unit with an enormous price tag of \$24,000.
5. Neither the hydraulic resources nor the turbine eventually ordered are even remotely sufficient for the electrification of the town.

This activity of PDCC is the only one which must be qualified a total fiasco. Its planning was amateurish, its management incompetent, its justification dubious, and its effect damaging for PDCC's relation with the town of Chambellan.

### 3.1.3 Upgrading the town square of Chambellan

A public square was constructed "for meetings and entertainment purposes" as specified in the project paper. It is quite decorative, functional, and used at least on market days. It may be interesting to note that the "community participation" hoped for was actually remunerated - justifiably so, in this observer's view. [This will be explained in the concluding chapters of this report.]

## 3.2 Agriculture

### 3.2.1 Courses in agriculture and animal husbandry

The specific target groups of these courses were to be "children at two Chambellan schools and...4-C groups" [PP]. Only recently has PDCC

started teaching agricultural and husbandry practices to children. This is generally taking place in the "Stimulation Précoce" groups and has already led to some children having their own vegetable gardens in addition to watching over rabbits. However, it has not been integrated into the activities of the "Jeunesse Rurale" [see Annual Report 19d 3/4], school curriculum, and 4-C activities. The reason for this appears to be either that the directors decided to drop this activity or that they did not communicate the plans to local staff.

Whatever the reasons for the less than adequate performance in this respect, PDCC has recently begun efforts to teach the basics of agriculture and animal husbandry to children and has now come a long way towards reaching the goal, although by a different road. It may be added that PDCC does a considerable amount of technical teaching for adults and thus encounters little difficulty in expanding this activity to include children.

### 3.2.2 Tree nurseries

According to the documentation kept on each noyau, some 9 tree nurseries are active in Hainault, 5 in Lavallette-Grand Ford, 3 in Shada-Dejean, and 1 in Commence. All of them produced cacao plants and some of them coffee as well. The annual report mentions, for 1983-84, a total of 19,250 cacao plants and 2,662 coffee plants which were distributed to 440 peasants.

The distribution of these plants was highly variable. In Congo, for example, sixteen peasants received an average of 45 plants each; while in Sombou, seven peasants were given 238 trees each.

Generally, the experience has been that the larger tree nurseries are hard to supervise and less productive than smaller ones. PDCC has thus in several localities moved to the small family-sized tree nurseries, the ones which hold only a few hundred plants in the shade of a single tree.

PDCC has acted as a contact between local peasants and the agroforestry program of the Pan-American Development Foundation [PADF]. Four groupements sylvicoles have been formed which comprise a total of 100 farmers under PADF's own supervision. Following PADF's strategy of delivering plants from its nineteen regional nurseries directly to outlying areas in boxes of about 250 plants each, there was no need for these groupements to establish their own nurseries locally. This would not have been possible at any rate due to the ["high tech"] Root-trainer and Windstrip systems used by PADF in place of the conventional black plastic bags.

PDCC has thus been the mediator in enabling PADF to reach its goals. PADF has planted 37,500 fast-growing trees in Chambellan during 1982, 15,000 in 1983, and 20,000 thus far in 1984. Its potential appears to be even greater for the future.

The project paper had set a goal of 80,000 trees annually for PDCC's nurseries. This goal has never been communicated to the staff below the level of the directors. The fact that it has not been reached cannot be held against the staff in Chambellan. Quite the contrary, the number of trees perishing each year in Haiti's nurseries is a disgrace and PDCC was wise to build up local demand before the introduction of the nurseries.

### 3.2.3 Demonstration of agricultural techniques

The original task was to "demonstrate on peasants' plots more productive agricultural techniques, both short- and long-term, including soil conservation, use of hybrid seeds, insecticides, and row cropping" [PP: 10]. PDCC at first invested rather heavily in regular demonstration plots, at first buying the five hectares called "ferme Hainault", then buying some land at Noré. Conventional peasant crops were planted and tended to, using slightly improved techniques. It soon became evident, however, that the first demonstration farm would never be really

profitable owing to the poor quality of the soil. The continuation of activity at Noré seems to have fared better, but its success is hard to measure since no standardized plots are used and no records of material and labor investment are kept - an oddity for a demonstration plot. It appears to this observer that land use is extensive rather than intensive, and further that the intercropping cycles which have been attempted do not depart very much from traditional practices. Clearly, then, PDCC does not have a demonstration farm in the conventional sense.

At the end of 1982, the co-director decided to depart from the demonstration farm model and instead move all technical demonstration onto the farmers' own gardens. This move was clearly in line with the original aim of the project.

It would take a detailed, separate study to determine the extent to which agricultural innovations have been adopted by the farmers. To do this would have taken us far beyond the terms of our project impact survey. But it is certainly fair to say that the project has only just begun to make a dent in local practices of intercropping and producing crops. The animators have, however, been receiving continuous instruction in new practices, both in seminars of various length, and in individual instruction from the coordinator.

The latest annual report [Brice, 1984: 11] indicated that 72 hectares have been planted under technical supervision. While this is a minor fraction of the total land in production, it is nevertheless considerable. However, I have not found too many traces of this work. Corn is still mostly planted in haphazard ways, spaced too closely, and the upkeep of the cacao trees is minimal in most cases. The documentation on seminars in the four noyaux shows that much technical training of farmers is going on at PDCC [e.g. 142 families at Noré in 1983] but the fruits of this work have been slow to ripen. It would certainly

require a detailed technical impact study - based on before-and-after records which currently do not exist - to do the agricultural work of PDCC some evaluative justice. My own impression is that the impact has varied according to the dedication and competence levels of the animators, but even this would still require verification.

One demonstration activity has, however, met with spectacular success. PDCC introduced vegetable gardens located in the immediate vicinity of farmers' homes, combining intensive cultivation methods with drywall construction for "the defense and restoration of topsoil" [the PDCC terminology for erosion control]. At present, 328 families have their own vegetable gardens and most of them have also started to eat, and often sell, eggplant, tomatoes, carrots, and cabbage. Some of the vegetables have even found their way to Moron, Marfranc, Jérémie, Dame Marie, Anse d'Hainault, and Les Trois, proving the production of vegetables is a commercially viable undertaking. Profits per hectare are of course phenomenal when compared to the traditional crops, a fact which receives proud attention in the latest Annual Report [pp. 9-10; Annexes 2 and 3]. Although the absorptive capacity of the surrounding towns is probably very limited, it is clear that the vegetable gardens are, so far, the single greatest achievement of PDCC in the effort to raise the nutrition level of the local population. Their total surface land usage amounts to no more than 2 hectares, yet they have really "caught on".

There appears to be much debate among nutrition experts, even those employed by AID, concerning the precise nutritional deficits of rural Haitians at this time. The commonly accepted finding, however, appears to be that what is urgently needed today is not only an increase in the quantity of food available for the poorest segment of the population, but also a better balance of calories, protein, vitamins, and minerals. The vegetable gardens cannot solve more than a part of the problem, but they nevertheless remain a most significant contribution.

Besides the vegetable gardens, soil conservation has also been tried via the "traditional" way: peasants have been paid to construct drywalls on a steep slope of approximately 2 hectares. The result does not look impressive in that the improved land is not being farmed in an intensive, innovative, or otherwise highly productive manner. Further, the farmers who were paid to construct drywalls for the project have not continued to do so on their own land and at their own expense. This confirms the experience of most other projects in this regard.

PDCC is fortunate to have a very knowledgeable and experienced man - the coordinator - to supervise the introduction of new agricultural techniques. Peasants elsewhere have been found to be more than willing to change their archaic agricultural production techniques if the price were right and the risk low. If the agricultural extension and modernization work of the coordinator is nevertheless still relatively slow to catch on in most peasant plots, the reason must be sought either in the risks and costs of modernization to the farmer, or in the structure within which the extension services are being dispensed. I shall address this question further on; for the moment it may suffice to say that PDCC's agricultural demonstration work has been done according to contract and has in parts been very successful.

#### 3.2.4 Tool and seed bank

PDCC has made many tools "available to peasants who have difficulty in obtaining these items" [PP: 10]. I have not been able to obtain the exact number, but it is probably considerably in excess of 200. For as long as they were kept in a common depot and distributed for particular tasks and periods of time, rather heavy losses were incurred. Today the tool storage is decentralized. Agricultural tools are stored in each of the four noyaux while road building tools are the responsibility of the groupements communautaires participating in road construction. It appears that the losses have now been reduced.

The documentation on tools stored in the noyaux and in the groupements is incomplete. As an example, the noyau Hainault has 38 tools under its control and each of its groupes strategiques also has a "mini-bank" of a few tools. Many of the tools are reportedly neither "lost" nor in storage. They are simply being used by farmers in their everyday chores, which is, after all, what the project paper had sought to achieve.

The seed bank was established for a while in 1983 as a revolving fund, as had been planned. Clearly the 440 farmers who profited from the cacao and coffee plants and the 328 farmers who planted vegetable gardens received seeds either cheaply or even for free. Later, however, the cooperative [Cos-Hainault] began to play a more important role as an intermediary channeling seeds out and receiving a part of the harvest as reimbursement. These payments are then used to build up a revolving fund. Some of the Cos-Hainaults' dealings are with the groupes stratégiques, while others deal with individual farmers.

This modest "seed bank" has already had significant spin-off effects. Strategic groups in Massica, Déjean, Cadette, and Congo, in addition to other groups in Mahotièrè, Boucan Millien, and Hainault have started to buy vegetable seeds with their own funds, some even ordering seeds from as far away as Jérémie and Port-au-Prince, and selling part of them to interested farmers.

In terms of seeds and tools, PDCC's operation has been unsystematic and not very well controlled, but it has clearly filled a local need and helped to improve agricultural productivity amongst participating farmers.

### 3.2.5 Training of two animal husbandry agents

Two animators have followed a six-month course in animal husbandry, thus fulfilling the obligation under the project paper.

PDCC has done much more under the heading of animal husbandry than had been foreseen in the document. The work has been expanded to include rabbits, fish, and cattle, in addition to the improvement of the chicken stock which in fact had already started when the project paper was being written. The following is a summary of the experiences.

### Chicken

In 1981, PDCC received from the Department of Agriculture 40 roosters, 20 of which were successfully distributed in the project area through the intermediary of strategic groups. The experience proved positive in that the halfbreed offspring [bata chin] grew faster and produced more meat than the indigenous breed. As laying hens, the improved chickens were disappointing. It was learned that chicken and vegetable gardens do not mix well at all. Both must be close to the house for security reasons, but the chicken then proceed to destroy the vegetable crop.

Overall, the experience with improved chicken was mixed. One Chambellan groupement ran a controlled experiment for almost a year and lost money with it. The main reason for the difficulties is the price of chicken feed. Sorghum and decorticated rice are not produced locally; nutritious feed is thus not available for free. Today 92 improved chicken are counted locally, but PDCC does not intend to expand this particular activity.

### Rabbits

Seven rabbits were introduced in 1981-82; the population has increased to the present level of 176 [about one-third of which are in the home of a single animator]. The center at Noré has an additional 18 rabbits and some 30 have been handed out to other projects.

Some families have started to eat rabbit occasionally, and several report having sold rabbits at around \$3 per piece. But the breeding and

husbandry practice are not yet well understood, and the mortality of newborn rabbits is very high even on the animators' own farms.

### Fishponds

Considering that fish [mainly Tilapia] were introduced recently, the fact that there are now already 65 fishponds must be considered a great success [57 families, 4 in peasant groups, and 4 at the Center]. As is the case with rabbits, PDCC has become a local leader, helping out other projects who used fish to stock their ponds. The coordinator has translated a manual on Tilapia into creole.

Fishponds are in theory a lucrative investment. However, in practice not even the animators have reached even one-third of the theoretical profit figures. There is evidence that many ponds are not managed well, resulting in overpopulation which severely inhibits growth. But no doubt many families have started to eat their fish - a product which is well known and liked and does not have any problems with local taste preferences.

The total surface of fishponds at this time is 3,762 square meters. It is unlikely to be greatly expanded in the near future because most of the most obvious locations near running water have now been used. But there are two natural ponds which might be put into production in the future.

### Cattle

One Zebu bull was bought by PDCC. Crossings with local cattle have so far produced 7 live calves; 28 more are expected within the next few months. These crossbreeds fetch much higher prices when fattened appropriately.

Overall, animal husbandry has had a good start at PDCC. Much training of animators and farmers is still required, but there has been satisfactory progress so far. However, the single easiest contribution that

might be made - massive vaccination for Newcastle Chicken Disease - has yet to be planned and implemented appropriately on a large scale.

### 3.3 Education and Training

As is true for most of Haiti, NGO's in Chambellan supply most of the educational facilities, manpower, and instruction which the Department of National Education has so far been unable to furnish. PDCC's approach departs from the norm of most NGO's in that: [a] the project does not run any conventional schools; and [b] it has been decided from the onset that the government's educational facilities are worth strengthening. This strengthening took the form of building new classrooms for the National School and attempting to upgrade its teaching staff. The eight goals listed below are evenly divided between construction projects and educational activities. The visibility of the former makes them easy targets for both praise and attack; most development professionals at PDCC and elsewhere would agree, however, that the substantive content of the latter is really what matters in the long run. While the conventionality of PDCC's "bricks and mortar" projects in education is what first meets the eye, it must be stressed in all fairness that substantive education, of both the formal and non-formal kind, is what really counts most for PDCC staff.

#### 3.3.1 Refurbish the National School of Chambellan

PDCC has kept its commitment to "construct a new building with four classrooms". The expenditure of approximately \$13,000 "was definitely inferior to the one budgeted by an engineer of the World Bank" [Bros: 46]. It is not entirely clear what proportion of the total cost was covered by PDCC and to what level "community participation" amounted. What is plain is that the building is adequate.

PDCC encountered some trouble in its role of overseeing the construction and has learned an appropriate lesson. It will no longer take charge of construction programs; rather, it will act as a supplier of imported

contruction materials while some other party assumes the task of contractor.

### 3.3.2 Literacy centers

PDCC has established nine adult literacy centers, two of which functioned as "post-literacy" centers during the 1983-84 period [the total of 11 centers given in the last Annual Report appears to be in error]. In July of 1983, 127 participants in the literacy classes took O.N.A.A.C. examinations and 46 of them received literacy certificates.

PDCC has been acting largely on its own initiative concerning the literacy effort. O.N.A.A.C., the government agency in charge of the literacy programs, has contributed to the training of the project's nine monitors, but has defaulted on promises to supply teaching materials.

Attendance at literacy classes was generally very low. The December 1983 report of PDCC director Tremblay cites the literacy program as "the wakest part of the Chambellan project". Inadequate training of the monitors and a lack of motivation at almost every level may have been contributing to this unsatisfactory performance. The centers were closed and all monitors dismissed in March of 1984, pending a complete overhaul of this project activity. It may be added that literacy centers in rural Haiti can operate profitably during the off-seasons only; like the road work discussed earlier, literacy training should not be allowed to interfere with planting, harvesting, and other agricultural activities. The project paper set a goal of "a minimum of 500 people trained in literacy" [p. 26]. This goal is far from attainable in the near future.

### 3.3.3 Formation of women's groups

The 16 member field staff includes 4 female animators specializing in "feminine" or "family promotion" [depending on who happens to be speaking]. The terminological insecurity reveals some uncertainty about the

precise mission of these women. .

The project paper was vague in this regard, speaking of "consciousness-raising", the "formation of women's groups", and encouraging women to "think about projects responding to their common interests and needs".

Considering the difficulty of the environment - that of male domination and the assignment of traditional roles to women - the feminine promotion section has performed admirably well. A long list of topics was developed, ranging from conventional home economics issues to child-rearing practices and aspects of agricultural production such as vegetable gardens and composting techniques.

Since the closing of the nutrition center, the nutrition education seminars have also become part of the animatrices' activities: five one-week seminars have been held thus far, involving 48 mothers and 52 children in 5 localities. Other seminars were held in another 10 localities. It is my impression that the "average" attendance figures given in the latest Annual Report [p. 4] should be read instead as "maximum" attendance; but there can be no doubt that the work of female and family promotion has been quite successful. The 328 vegetable gardens would have been inconceivable without the collaboration of the women, both those of the PDCC field staff and among the target population.

The creation of female strategic groups has progressed according to plan. Only three out of the four noyaux are adequately documented in this respect; the following table shows female membership in these strategic groups.

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Table 3-1. Strategic Group Membership by Sex [1].

<u>Noyau</u>	<u>Strategic Group</u>	<u>Men</u>	<u>Women</u>	<u>Female Majority</u>
Hainault	1. Cherche la vie	3	12	x
	2. La vie lote	11	1	
Lavalette- Grand Fond	1. Combat de la misere	5	7	x
	2. Combat de la vie	2	14	x
	3. Espoir	0	15	x
	4. Courage	15	1	x
	5. Solide	0	11	x
	6. Decide	0	15	x
	7. Delivrance	8	7	
	8. Tet ansamb	6	4	
	9. La victoire	4	8	x
Dejean-Shada	1. Progres	1	8	x
	2. L'union	2	8	x
	3. Main dans la main	4	6	x
	4. Tet ansamb	3	8	x
	5. Fres unis	12	-	
	6. Decide [Shada]	3	8	x
	7. L'union [Shada]	9	4	
	8. La victoire	6	9	x
	9. Cherche la vie	-	9	x
Total strategic group membership		94	155	11 of 13

1. The sex composition of the four strategic groups at noyau Commencé could not be determined. In all cases, name lists provided the basis for determining sex.

Only four of the twenty strategic groups are entirely female and only one is completely male. Overall, the women are dominant in numbers. They supply 155 of the total membership of 249, while forming the majority in 15 of the 20 strategic groups.

No comparable information is available on the 24 groupements communautaires. But judging from the name lists, I would expect their membership to be at least two-thirds male. Their executive committees are very much dominated by men. Among the total of 210 presidents, vice-presidents, secretaries, treasurers, and councillors, there are only 29 women.

The activities of the strategic groups are very much centered around the vegetable gardens and the cultivation of rice and beans, with an occasional look at fishponds. It must be assumed that there is much overlap in female participation in PDCC activities. The same women who form strategic groups are also, by and large, members of groupements communautaires, recipients of various project benefits, and participants in the various seminars. Something similar is probably occurring among men.

#### 3.3.4 Training of 20 teachers in-service

PDCC offered one course for in-service training which was attended by 22 local teachers during the five days in which the course was given. The continuation was scheduled to take place in January of 1984, but had to be cancelled because the teachers demanded to be paid for their participation. Since PDCC had decided to cease all payments for community participation in its activities, it was felt that any exemption made for teachers would have been unfair to others.

It may be added that PDCC recognizes the urgent need for upgrading the teaching staff of Chambellan schools. Only three of the teachers ap-

pear to have received any education beyond the primary level themselves [a fact which I have not been able to verify, but which appears quite likely].

The less than complete success in upgrading teachers' professional skills is indicative of three significant issues: [1] whatever the intentions of PDCC, its role is frequently seen as one of an employer who should pay for any service and participation by the local population; [2] the relations between the town and PDCC are strained to the point where even services offered by the project are not necessarily accepted; and [3] the blame for "failures" is often laid at the feet of the coordinator who has really no executive power.

### 3.3.5 Construction of five social centers

Every groupement communautaire seems to want its own social center. PDCC has recognized the role of such places in the formation of identity and solidarity, in the distribution of goods and services, and for use as schools where there are none. PDCC has greatly overachieved its goal by financing not five but twelve such centers.

In five cases of center construction, PDCC acted as contractor and this led to considerable budget overruns [Chambellan, Lavalette, Grand Fond, Hainault, and Commencé]. As mentioned earlier, the appropriate conclusions were drawn: the groupements of Mahotière and Massica stayed within their \$1000 budgets, acting as their own contractors. Those of Mathieu, Shada, Fond des Bois, Bassin David, and Marie Gauvin did the same with their \$500 budgets.

The buildings are generally modest and frequently lack even benches, but they do fulfill local needs, as evidenced by their use for multiple functions, including funeral wakes.

### 3.3.6 Community development training

In a summary presentation [p. 11], the project paper describes the community development training program as that where PDCC offers "basic instruction to 90 people in community development emphasizing the organization of strategic groups". Elsewhere [p. 26], it is envisaged that 50 people will be trained as community leaders and that 30 local self-help groups will become operational.

Building upon an existing network of O.N.A.A.C. groupements, only two of which, however, were operational in 1979, PDCC has succeeded in stimulating the emergence of a large number of groups. At present, 23 groupements communautaires are operational and monitored by the project. Their total membership is unknown but can be estimated at more than 2000. An additional 13 more groupements have been contacted, but not yet incorporated into the effective target area of the project. In addition, 24 strategic groups have been formed, encompassing a total membership of roughly 300 members.

PDCC's monthly and annual reports contain long lists of training activities, dozens of seminars and "cercles d'études" which have been held, trips to other projects and organizations which have been undertaken, and the like. There can be no doubt that the project has lived up to the sponsors' expectation. The quality of these groups and the content and functions of their activities are discussed elsewhere, principally in sections 1 and 6 of this report.

### 3.3.7 Bon Berger school completion

Before the start of the 1981-84 funding period, PDCC had contributed to the repair of the Bon Berger school which had been partially destroyed by Hurricane Allan in 1980. Nothing new has been added since then. The project's contribution seems to have been limited to providing roof materials, but since the practice at that time was frequently to also pay for labor costs, it might have amounted to more. Minor

items such as this are hard to document four years and four co-directors after the fact.

### 3.3.8 Renovation of the Center for Domestic Education

This renovation has yet to be carried out. Negotiations with town authorities [who insist that it has been promised and that PDCC has broken this promise] are at a standstill. The project sticks to the letter of the original contractual obligation, namely, to contribute imported building materials [cement, tin roof, and nails] and nothing more. Chambellan expects labor costs to be paid as well and that the contractor's role will also be assumed by PDCC.

There is little doubt that PDCC is right and the town notables [led in this respect by the director of the National School] are wrong in a legal sense. But there can be no doubt either than in the past, and particularly in the cases of the town square, social center, and National School, PDCC has contributed much more than merely its minimal legal obligations. To reduce the contribution to that level now is understood as breaking a promise.

Since this is one of the thorny issues aggravating the relationship between the project and the town, it will require a prompt solution. Whether the center - or most of what goes under "arts domestiques" in Haiti - is really needed is not at all clear to this observer. But it appears likely that should the project decide to renovate the center, it would acquire some influence over what is actually taught inside it. There may yet be a chance to renovate the center, and thereby overcome the mistakes of the past.

## 3.4. Health, Nutrition, and Environmental Sanitation

### 3.4.1 Potable water for Moron

PDCC has pledged to "contribute to the construction of a potable water system in Moron"; the project paper has pledged "some small support".

This support has taken the form of technical supervision, cement, and reinforcing steel for the capping of the Basin Simbie source. Work on this project has recently begun.

The nature of the support is very modest and well chosen. The public utility, Service National d'Eau Potable [SNEP] has recently started work on a water system for Moron which will depend on a mechanical pump. The Basin Simbie source, however, is located at a higher altitude and its water will be much appreciated once the government's pump will have broken down.

An unsolved problem, however, is the transport of water from source to town. An SNEP study has concluded that more than \$23,000 worth of pipes are needed, an amount which PDCC clearly cannot donate.

#### 3.4.2 Nutrition Education Center

During the 1981-82 year, PDCC operated a nutrition education center and recuperative feeding program, first in Hainault and then in Grand Fond. The program enjoyed some modest success while it lasted; it was terminated like almost all programs of its kind in Haiti because what had begun with the intention to change nutritional practices had ended up as a de facto daycare center providing free luncheons.

PDCC has acted correctly in replacing the center with nutrition seminars in the feminine promotion program. The success of the center is the topic of section 5.2.

#### 3.4.3 Completion of the Chambellan dispensary

The commitment to "participate, with the help of the community, in the completion of a public dispensary in Chambellan" [PP: 12], has not been fulfilled. Here, the problem is similar to the one discussed under 3.3.8, where PDCC is offering imported construction materials and the town leaders are demanding the payment of labor costs as well.

In this instance, however, the matter in dispute has been resolved. After two years of unsuccessful negotiations, AEDC has removed this item from the budget.

Meanwhile, the government has built a shining new dispensary right next to the PDCC office. If it were open and functioning, the local need would be satisfied. In the meantime, the existing dispensary is entirely inadequate.

#### 3.4.4 Construction of a slaughterhouse

As promised, a slaughterhouse was constructed at the Chambellan marketplace. It has resulted in a great improvement of slaughterhouse practices. Even though the septic tank is overflowing and the running water is not always running, this is still a blessing.

Should PDCC continue to work on infrastructure projects for the town of Chambellan, a more general improvement of the marketplace [latrine, water, drainage, roof, cement floor] may be considered. Local and regional markets are of critical importance in Haiti. Part of the large post-harvest losses that regularly occur could be avoided by improving markets.

#### 3.4.5 Construction of latrines

Some 75 low-cost latrines were constructed with help from PDCC [cement, steel, fibro-cement roofing] in Chambellan, 30 in Cadette, Hainault, and Congo, and 40 in Shada, Déjean, Lavalette, and Grand Fond. Control over the cement, as always, proved difficult. Numerous instances have been mentioned where the materials were allocated to latrines but were used for other purposes. Given this situation, PDCC stopped handing out these goods for free.

The latrine construction program has come to a virtual standstill, but some modest progress is still being made with the female animators

promoting the use of simple ways to use human wastes for composting purposes.

A public latrine was never built as planned. A site selected and prepared at the market turned out to be inadequate. Town leaders still want to see a public latrine built, but negotiations have again stalled on the issue of who would pay for labor costs.

### 3.5 Small Enterprise Development

#### 3.5.1 Sewing and embroidery

The project paper stated that PDCC would "provide instruction in sewing and embroidery to women's groups interested in income-generating activity" [p. 13]. This was supposed to be "a major thrust" [p. 8] which has, unfortunately, led nowhere. Under the leadership of the PDCC director's wife, some bedspreads and other articles were produced, but marketing proving most difficult since the Chambellan products could not compete in price and quality with those coming from other Haitian development projects. To drop this activity was no doubt a wise move.

#### 3.5.2 Metal workshop

PDCC has constructed a metal workshop, sent two local young men to Laborde for training, and installed the necessary equipment. The facility is ready to function and contains more, and more expensive, equipment than any other building in town, including the PDCC center at Noré. However, the question must be posed - was this project worth the \$5,000 invested in it?

The answer will have to come in the near future. At this point, the following problems are being encountered: [1] the two trained artisans are not on the best of terms; [2] one of them is said to have pocketed much of the money taken in so far, instead of routing it to the cooperative and his colleague; [3] there is insufficient local demand for the products of the shop; [4] some products, such as door hinges, cannot be produced more cheaply by hand than industrially; and [5] the committee

overseeing the workshop has been slow to supervise and react to ongoing concerns.

The metal workshop is adequately equipped and might enjoy a bright future one day. Thus far, however, one must observe that while PDCC has been able to fulfill the letter of the agreement, the spirit has proven more elusive, and commercial success impossible to reach.

### 3.6 Summary of Goal Implementation

PDCC has reached and even surpassed twelve of its twenty-three goals. Two have been dropped entirely and are both in areas [domestic arts] which must be considered non-essential to the development effort.

Three infrastructure projects have not been completed. These projects [the road, the turbine, and the water system for Moron] were based on unrealistic expectation and inadequate feasibility studies. They should never have figured in the plans of the project paper in the present form. The PDCC leadership bears a minimal part of the blame, at most, for these failures.

The remaining six goals fall into two groups. The latrines, the teacher training, and the dispensary fell victim to the project's refusal to work without free community participation. This issue will be discussed in the final two sections of this report. Suffice it to say here that, based on previous experience with PDCC - the project itself, not someone else's food-for-work program which supposedly ruined the scene for development work - the town population was not entirely unjustified to demand payment for services and participation. PDCC is, after all, the single largest and richest employer that has ever hit Chambellan, and PDCC has reached several of its goals [e.g. the National School construction program] by virtue of its practice of paying for "community contribution".

The final three goals [agriculture courses for young people, tree nur-

series, and literacy centers] might well have been attained had there been a more concentrated effort in planning and communication. The goals were clearly not known at Noré and it is doubtful whether a French copy of the project paper exists. Besides, the goals of 80,000 trees per year and 500 newly literate adults were probably unrealistic to begin with.

The following table 3-2 provides a summary of the degree to which the twenty-three goals have been reached. It should be used in conjunction with the the text of this section. Some underlying causes for reaching or failing to reach many of the goals will be discussed in later sections. For the moment, the following conclusions may be in order:

1. PDCC has reached or surpassed the majority of its goals.
2. Where goals have been dropped altogether, this was done responsibly and for good reason.
3. Unrealistic expectations and inadequate feasibility studies - rather than staff incompetence - explain most of the failures to completely implement some of the goals.
4. PDCC's record in implementing the twenty-three stated goals is respectable.

Table 3-2 Degree of implementation of project goals

<u>Sector</u>	<u>Activity</u>	<u>Degree of Fulfillment</u>
A. Rural infrastructure	1. Penetration road construction	1
	2. Hydroelectric turbine installation	0
	3. Upgrading town square	4
B. Agriculture	1. Courses for young people	1
	2. Tree nurseries	2
	3. Demonstration of agricultural techniques	4
	4. Tool and seed bank	4
	5. Training two husbandry agents	4
C. Education and Training	1. Refurbishing national school	4
	2. Literacy centers	1
	3. Formation of women's groups	4
	4. Training 20 teachers in-service	2
	5. Construction of 5 social centers	4
	6. Community development training	4
	7. Bon Berger school completion	4
	8. Renovation of center for domestic education	0
D. Health, Nutrition, and Environmental Sanitation	1. Potable water for Moron	2
	2. Nutrition education center	4
	3. Complete Chambellan dispensary	2
	4. Construction of slaughterhouse	4
	5. Construction of latrines	1
E. Small Enterprise Development	1. Sewing and embroidery	0
	2. Metal workshop	4

NOTE: Degree of Fulfillment: 4 = goal reached or surpassed  
 3 = goal within reach  
 2 = halfway mark reached  
 1 = some progress made  
 0 = goal abandoned

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#### 4. DISTRIBUTION OF PROJECT BENEFITS

##### 4.1 The Project Impact Survey

###### 4.1.1 Aims and topics covered

The aim of the project impact survey was to measure the effects of the project upon the target population in areas lending themselves easily to measurement by a questionnaire study. The areas coming under assessment included participation in peasant organizations, access to drinking water, use of a school, presence of rural latrines, and acceptance of the project's suggestions concerning production techniques. Anything that required complex research procedures - such as changes in land tenure and planting techniques - was excluded from coverage due to limitations in time and resources. Since the presence of male heads of household in the home during daytime could not be assumed, I also excluded questions which would have been directed at them in the first place, e.g. those relating to attitude changes. The following items were covered in the questionnaire:

**Household:** All members of one or more families residing in the same house were documented in terms of the following:

- age
- literacy
- religion
- school attendance
- sex

**Demography:** All births in the household during 1983 were noted, including the following information:

- name of mother
- month of birth
- survival of baby
- [abortions were also documented]

**Economic Status:** Measurement is based on house construction type, presence of eight consumption items, and ownership of twelve kinds of animals. The items making up the scale included:

- house construction type: materials used for walls, roof, and floor

- consumption items: five types of local furniture [panntye, gad manje, kabann, chez boure, anwa] and three pieces of equipment [radyo, lanp a ve, kanari]
  - animals and their average local values
- Project Impact:
- infrastructure: access to potable water, participation in community schools and pre-school education
  - participation in peasant groups: groupement communautaire, groupe stratégique, coopérative de service Hainault, coopérative de production et commercialization des denrées
  - public hygiene: latrines
  - agriculture and animal husbandry: vegetable gardens, rabbit breeding, fishponds, vaccination of chickens, compost storage.

This survey enables us to make a rather precise estimate of the extent to which the project has affected various practices in agriculture, animal husbandry, and public hygiene. It further provides insight into the distribution of benefits according to locality, family characteristics, economic status, religion, and groupement participation. It will thus be possible to scrutinize the work of PDCC and to set precise objectives for changing its target population if necessary. PDCC has now been in operation for four years and it requires an accurate picture of who has been benefiting most from its activities. Vague statements such as "nearly 4,000 peasants or 25% of the local population are directly benefiting from...the Project" [Bros, 1983: 21] will no longer be sufficient. We need to know who is benefiting, to what extent, and why.

#### 4.1.2 The sample

The project paper designated the commune of Chambellan as the PDCC target area - a very large section of the Grande Anse department, containing a population in excess of 16,000. The commune is administratively divided into the town of Chambellan and two sections rurales. There are no further official subdivisions, such as villages. However, there are many smaller areas with distinct names. The baseline study listed and mapped 82 of them for the whole commune. PDCC produced its

own map which is only in partial agreement with that of the baseline study. In its everyday operation, however, it involves a number of localities which cannot be found on either of the maps - not because they are insignificant, but simply because the maps are both incomplete.

Table 4-1 Distribution of interviews in Chambellan and 24 localities

<u>Name of localities</u>	<u>No. of houses</u>	<u>Sample size</u>	<u>Interviews completed</u>
1. Bassin David	37	12	12
2. Belle Maison	30	10	12
3. Boucan Milien	54	18	18
4. Cadette	61	20	19
5. Chambellan	150	75	76
6. Commencé	35	12	12
7. Congo	25	8	11
8. Daniel	51	17	18
9. Déjean	86	29	29
10. Djanacourt	14	5	6
11. Fond des Bois	39	13	14
12. Glacis	40	13	13
13. Grand Fond	80	27	27
14. Granger	19	6	6
15. Hainault	105	35	34
16. Julie	46	15	18
17. Counouque	78	26	28
18. Lavallette	40	13	14
19. Mahotière	118	40	42
20. Marie Gauvin	15	5	6
21. Massica	27	9	10
22. Mathieu	64	21	22
23. Noré	44	15	12
24. Shada	73	24	25
25. Terre Rouge	48	16	16

The PDCC animators have as part of their work done systematic counts of all houses, families, and groupements in their respective localites. These house counts were used as a sampling frame for the survey. They are more reliable and are broken down in more detail than anything produced by the 1979 baseline study and the 1982 census. Table 4-1 above provides the distribution of houses sampled in the various localites. The sample size was determined as 33% of all houses of the 24 localites and 50% of those in Chambellan to give a total of 503. The unit of analysis for the survey is the house which, in most cases, coincides with one family and one household. The unit was chosen for the sake of simplicity: there was simply not enough time for - and little to be gained by - a preliminary census to determine the number of families and households. We can easily live with the fact that somewhere around 30% of the houses contain more than one household [PDCC, 1984: Annex 4], but it would have been impossible to carry out the survey without using a sampling frame which was already available. Since the sample is large and covers a representative selection of houses, the results can be generalized for households and the population at large without too much hesitation.

The town of Chambellan was deliberately oversampled, a condition which will be corrected by introducing the appropriate weights later on. This was done for two reasons. First, there is considerably greater socio-economic variation within the town population than within that of the localites: e.g. individuals who control large tracts of land in the rural sections are inevitably residents of the town, as are virtually all those not employed in agriculture. Secondly, we may occasionally want to use a rural/urban dichotomy, comparing the rural population with that of the town. In such a case the use of control variables in cross-tabulations is not feasible unless the sample has a certain minimum size. A cross-tabulation using trichotomized variables and a rural/urban control would need an urban sample of at least 64 if an average cell frequency of 4 is considered an acceptable minimum.

Within each localite the interviewers went about their tasks in teams of two to four, under the direction of one supervisor who divided the localite and assigned subdivisions. The interviewers were instructed to select one house in two, proceeding from the margins toward the center of the localite. While this resulted in a reduced coverage of the centers, it had two distinct advantages over sampling one house in three: it allowed a good coverage of outlying areas which interviewers have a tendency to skip over, and it prevented the oversampling of the more conveniently accessible locations in the centers. Few of the localites have a village structure with a distinct center; on the whole, the "one-in-two" compromise in our sampling did much more good than harm.

#### 4.1.3 The questionnaire

The questionnaire was written in Chambellan on April 26, using materials from the PDCC and GPP baseline studies [Fanfan et al, 1979; GPP, 1981; and Locher, 1983b]. Many of the questions had thus already been tested but their formulations occasionally had to be adapted to local creole usage. The 34 questions contain a total of 170 pieces of information, 149 of which were carried as numeric codes to the margins of the four-page questionnaire. Testing of the questionnaire was done in two steps, on April 29 and 30, both of which resulted in revisions. The final version was used to complete 503 interviews between April 30 and May 8.

#### 4.1.4 The interviewers

The seventeen interviewers were selected from among the PDCC animators and the town's population. All had previous experience with interviewing, work in their assigned localites, and with the systematic recording of information. Training in the use of the questionnaire was conducted on April 29 and 30. Four of the interviewers also performed supervisory functions. All interviewers received training in coding on May 2 and four of them were retained as coders from that point onwards until the termination of field work on May 8. All questionnaires

were checked for errors on the day of the interview by the supervisor as well as by myself. All coding was double-checked. It is hoped that errors were kept to a strict minimum. The reliability of the information gathered will be discussed in the appropriate sections of this report.

## 4.2 The Sum of Benefits

### 4.2.1 Benefits related to infrastructure

The most significant of PDCC's infrastructure projects has been the installation of a potable water system for the town of Chambellan and some adjacent localities. Table 4-2 below shows that almost 60% of the target population have access to clean drinking water thanks to this system. Most of the households will, of course, still need to mobilize child labor in order to carry the water from the fountain to the house, and some of the containers are so dirty as to contaminate the clean water. Yet this figure of 60% may well be the greatest triumph that PDCC has achieved to date.

Table 4-2 Benefits related to infrastructure

<u>Nature of benefit</u>	<u>Households benefiting</u>	
	<u>No...</u>	<u>%</u>
1. Access to piped water	857	59.9%
2. Participation in pre-school classes by at least one child	210	14.7%
3. Participation in groupement school by at least one child	126	8.8%
4. Participation in rural youth activities by at least one child	268	18.7%

Note: Here as well as in the following tables, numbers refer to the total [extrapolated] target population rather than to sample households.

While drinking water now reaches a majority of households, the other project benefits can accrue only to those families who have children of school and pre-school age. Nearly 15% profit from the pre-school classes offered by the project, nearly 9% profit from the regular instruction in groupement schools, and close to one in every five households has youngsters participating in rural youth clubs. The regularity of attendance at their classes and meetings has not been studied, but it can certainly be stated that a significant minority of children among the target population benefit from the educational services offered for free by PDCC. If one were to include those children receiving their instruction at the national school in PDCC-sponsored classrooms, then the proportion would be greater still.

#### 4.2.2 Benefits related to production activities

As stated earlier, one of the major areas of benefit has not been covered in the survey. There is no practical means of estimating the production increases resulting from the agricultural extension work of PDCC. But several other changes in production patterns can be documented quite easily, and five of these are included in table 4-3 below.

Table 4-3 Benefits related to production

	<u>Production activity</u>	<u>Households benefiting</u>	
		<u>No.</u>	<u>%</u>
1.	Vegetable gardens	536	37.5%
2.	Kompost heaps	483	33.8%
3.	Rabbit breeding	59	4.1%
4.	Fishponds	66	4.6%
5.	Vaccination of chicken	238	16.6%

---

The benefits listed in table 4-3 above are different from those in the previous table in that they all require an investment on the part of the farmers themselves. The seeds, rabbits, vaccine, etc., do have a material value, although in most cases this is much smaller than what the farmer must contribute on his own, such as drywall construction, the digging of a pond or a compost hole, and even the transport [human] of chickens over long distances to get to the vaccination center. Only a portion of farmers are able and willing to make such contributions in time, energy, and money; in addition, in certain instances the risk factor in an unknown new technology is considerable. But at least the vegetable gardens and compost heaps have clearly "caught on" - more than one-third of the families now have one or the other or both of them.

Some raw numbers in table 4-3 deserve elaboration. The first one appears at first sight to be an exaggeration since the project's own documentation speaks of only 328 gardens. It should be noted, however, that more than one household can pool its labor in one vegetable garden and that the project's report speaks of presently operative gardens only while the questionnaire included both past and present gardens. After all, a "garden" in Haitian creole is not something physically permanent but rather a particular use of a plot of land during a period of a few months. The difference between 328 gardens [Brice, 1984] and 536 gardens [the survey] is thus a matter of definition rather than due to sampling error. Both figures, of course, contain the same message, namely, that a significant minority of households now derive food and income from this new production technique.

The fact that 16.6% of the households report having vaccinated chicken in 1983, does not, however, provide accurate information on the number of chicken actually having been vaccinated. Some households only had a single chicken treated while others managed to protect up to 30 of them, with 3 to 7 being the range of chickens most frequently reported. According to the answers, a total of 1390 chicken were vaccinated. It

would be difficult to estimate which proportion of the total chicken stock was vaccinated since the survey did not include any verification of the numbers of chicken owned and since this number fluctuates considerably according to seasons and disease cycles. But it is safe to say that the numbers given for chicken owned, reported in question 26 that comes from the survey questionnaire, most certainly underestimated [7551] the total chicken stock. Therefore, the proportion of chickens vaccinated is certainly much below 18.4% [which is the result of dividing 1390 by 7551]. Only one household in six managed to vaccinate at least part of its chicken flock.

#### 4.2.3 The total of beneficiaries

I have estimated three simple scales by counting the households benefitting from one or more of [1] benefits relating to infrastructure, [2] benefits relating to production, and [3] benefits relating to either of these factors. The scales are additive and unweighted, which means that one point will be given for each benefit. For example, a household using piped water, sending [one or more] children to groupement school, and raising rabbits will obtain a score of 2 on the first scale, 1 on the second, and 3 on the combined scale.

Table 4-4 The distribution of benefits according to three scales

<u>Number of benefits accruing per household</u>	<u>Percent of households benefitting in relation to:</u>			
	<u>Infrastructure</u>	<u>Production</u>	<u>Both types</u>	
0	28.0%	44.3%	18.2%	} 81.8% } 55.7%
1	47.0	26.1	26.1	
2	20.8	20.6	23.1	
3	3.4	7.1	14.2	
4	0.8	1.3	11.4	
5		0.6	4.7	
6			1.3	
7			1.0	
	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	

Table 4-4 above contains a message of great significance in that more than four households in five [81.8%] have started to derive at least some tangible benefit from PDCC activities. While this benefit is still limited in many cases to potable water alone, in the majority of cases [55.7%], this is not the case at all. All but one of the items listed as benefits in tables 4-2 and 4-3 require some form of participation on the part of the beneficiary, and it is clear that the majority of the target households have started not only to benefit but also to participate. The level of participation may still be relatively low if the expectations of project staff are taken as a standard, but it is significant nevertheless.

One more item, the presence of latrines, was left off the scale because it was unclear in many cases whether the latrine was [a] finished, [b] in use, and [c] a product of PDCC or some other organization's motivation campaign. It was found that 14.2% of the houses have a latrine, for a total of 200.

#### 4.3 Geographic Distribution of Benefits

When PDCC began its activities in 1979, it did so in and nearby the town of Chambellan. Since then it has reached farther out and in 1984 the project is operating in about one-third of the commune's localites containing more than one-half of its total population. Project benefits are distributed very unequally between these localites, however, reflecting primarily the amount of time the project has been in contact with them. Let us first take a look at the matter of access to piped water among the residents of the various localites.

It is found that 17 of the 25 localites obtain all their drinking water from a single source, and for 9 of them this single source is the PDCC-installed piped water system. These 9 localites hold close to 40% of the entire target population. If the piped water users in the other

localities are added, we then arrive at the total of about 60% of all target households which presently obtain most or all of their drinking water from the fountains and pipes. Most of these households, as we have seen, are grouped along the main road.

As a next step, let us take a look at the mean number of benefits accruing to the households in the various localities. For this I shall be using the same additive scales as in table 4-4, representing totals of the various infrastructure and production-related benefits accruing to each household. A relatively high value in table 4-6 may be the product of either many households benefiting a little bit or fewer households benefiting a great deal. Only one locality had a score of 0.0 [Glacis] while five had scores equal to or exceeding 3.0 [Cadet, Commencé, Congo, Noré, Terre Rouge]. High scores in this table reflect a significant concentration of PDCC work in a locality. Low scores, however, do not necessarily mean that the area has not yet been touched by the project. Fond des Bois, for example, has one of the lowest scores but has already built its own social center out of PDCC funds and by mobilizing peasants in the area to contribute their labor to such a project. But this could not be included in the scale since it cannot be measured as a benefit of particular households.

One of the questions which can be raised about the geographic spread of benefits is whether they actually went to the intended target areas. Theoretically, those areas where PDCC staff have spent a lot of their resources should also be those where the most effects should be visible. Whether this is actually the case can be seen in table 4-7.

"Project activity levels" were defined in the following way. First it was determined which localities had a social center built by PDCC. Secondly, the coordinator estimated how much of the project's manpower had been allocated and over which period of time. The results were coded as "high", "medium" and "low" levels of project activity.

Table 4-5 Households' sources of drinking water, by localite

Percent of households using each source of drinking water

<u>Localite</u>	<u>PDCC piped water system</u>	<u>Water from Sources</u>	<u>Water from River</u>	<u>Other Sources</u>	<u>Total No.of Households</u>
Basin David		100.0%			36
Belle Maison		100.0%			36
Boucan Milien		94.4%	5.6%		54
Cadet	100.0%				57
Chambellan	96.1%	3.9%			152
Commencé		100.0%			36
Congo	100.0%				33
Daniel	100.0%				54
Déjean	100.0%				87
Djanacourt		100.0%			18
Fond des Bois		100.0%			42
Glacis		100.0%			36
Grand Fond	7.4%	92.6%			81
Granger	100.0%				18
Hainault	68.6%	22.4%	8.6%		105
Julie	50.0%	50.0%			54
Kounouk	22.2%	66.7%	3.7%	7.4%	81
Lavalet	78.6%	21.4%			42
Mahotièrre	100.0%				126
Marie Govin		100.0%			18
Massica	50.0%	50.0%			30
Mathieu		100.0%			66
Noré	100.0%				42
Shada	100.0%				75
Terre rouge	100.0%				48

Table 4-6 Mean number of benefits accruing to households, by localite

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<u>Localite</u>	<u>Benefits related to production</u>	<u>All benefits</u>
Basin David	1.3	1.7
Belle Maison	0.1	0.3
Boucan Milien	0.5	0.8
Cadet	1.6	3.3
Chambellan	1.2	2.5
Commencé	2.5	3.7
Congo	1.7	3.3
Daniel	1.1	2.6
Déjean	1.3	2.9
Djanacourt	1.0	1.8
Fond des Bois.	0.3	0.5
Glacis	0.0	0.0
Grand Fond	0.8	1.0
Granger	0.5	1.7
Hainault	0.9	2.1
Julie	0.6	1.1
Kounouk	0.7	1.5
Lavalet	1.1	2.6
Mahotièrè	0.5	1.5
Marie Govin	1.8	1.8
Massica	1.2	2.5
Mathieu	0.8	1.4
Noré	1.2	3.0
Shada	1.1	2.6
Terre Rouge	1.3	3.0
Mean	1.0	2.0

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Table 4-7      Mean number of benefits accruing to households by project activity levels

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<u>Project activity level</u>	Mean number of benefits related to:			<u>No. of cases</u>
	<u>production</u>	<u>infrastructure</u>	<u>prod.+ infrastr.</u>	
low [1]	0.5	0.4	0.9	264
medium [2]	0.8	1.1	2.0	456
high [3]	1.3	1.2	2.5	626

[1] "low" activity was estimated for the following localities: Basin David, Belle Maison, Boucan Milien, Fond des Bois, Glacis, Granger, and Mathieu.

[2] "medium" includes: Daniel, Djanacourt, Julie, Kounouk, Mahotièrre, Massica, Shada, Terre Rouge.

[3] "high" activity was measured in: Cadet, Chambellan, Commencé, Congo, Déjean, Grand Fond, Hainault, Marie Govin, Noré.

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Table 4-7 above shows great increases in project benefits per household as we move down from "low" to "high" levels of project activity. In every column, the figure nearly triples which means the project's expenditure of time and material resources indeed does bear at least some fruits and can be measured objectively at the individual household level. Those localities which have received more of PDCC's attention over the years do have some results to show today. They may be modest but they are unmistakably there.

#### 4.4 Socio-Economic Distribution of Benefits

##### 4.4.1 Project benefits and economic status

The following tables will explore the distribution of project benefits among the various social strata. This issue is an important one in many development projects since their stated intention is usually to help the poorest segments of society. What has been the performance of PDCC in this respect?

Table 4-8 Percentage of households per number of project benefits received and economic status

<u>Number of benefits</u>	<u>Economic Status</u>				
	<u>lowest</u>	<u>low</u>	<u>medium</u>	<u>high</u>	<u>highest</u>
0	27.4	16.4	16.6	15.2	9.3
1	32.8	31.7	24.5	26.6	14.9
2	25.1	22.4	22.1	27.4	14.3
3	5.4	14.2	19.3	13.5	19.3
4	6.9	10.7	15.6	9.3	20.5
5 - 7	2.3	4.6	1.8	11.0	21.7
Total %	100.0%	100.0%	100.0%	100.0%	100.0%
N	[259]	[366]	[326]	[237]	[161]

The results of table 4-8 can be summarized in the following way.

- [1] There is a correlation of moderate strength between economic status and the number of project benefits received by a household. The higher the economic status, the greater the number of benefits received.
- [2] This correlation is weak for the low, medium, and high strata. In other words, it plays only a very minor role for those two-thirds of the population who are neither in the lowest nor the highest categories.
- [3] The comparison of the marginal strata, i.e. of the best and worst-off households, brings out very drastic differences. The great majority [85.3%] of the poorest households enjoy few [0,1, or 2] of the benefits while the majority [61.5%] of the best-off households enjoy at least three.
- [4] Proportionately-speaking, ten times more families in the highest stratum [21.7%] take full advantage of PDCC than do the lowest stratum [2.3%]. Only the highest stratum takes good advantage of PDCC's efforts in the sense that only in this stratum do more than one-half of the households enjoy at least three of the benefits.

The project impact survey has thus confirmed with strong empirical evidence what others in similar projects have suspected or stated more impressionistically: the project helps the relatively rich more than it does the poor. But there is still another question to explore. It is conceivable that the correlation in table 4-8 is really a spurious one and that locality [or proximity to both PDCC and the town of Chambellan] is really what explains the spread of benefits, rather than economic status as shown above. In other words, if the people in and around the town are generally better off and if the project concentrates on them, then the reason for their reaping of the benefits is not their economic status but rather their proximity to the project.

The best means of exploring this issue is to examine the benefit variations along economic status lines while holding localite constant. I have done this by studying each stratum in each localite separately. The result is not entirely clear because the small samples in the smaller localites increase possible errors in this comparison. What can be said with confidence is that benefits varied along economic status lines in only 9 of the 25 localites. In all the other cases, the relationship was either non-existent or dubious because of small sample sizes. At any rate this procedure establishes only a weak relationship between economic status and benefit spread.

The next step is to assemble some localites in larger groups and again the criterion which makes most sense is the degree to which PDCC has directed its efforts towards a localite. I am thus using the same variable "project activity level" as I did in table 4-7.

Table 4-9 Mean benefits accruing to households, by project activity level and economic status

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<u>Economic Status</u>	<u>Project activity level</u>		
	<u>low</u>	<u>medium</u>	<u>high</u>
lowest	0.7	1.7	1.5
low	1.1	1.5	2.4
medium	1.2	2.1	2.4
high	0.8	2.4	2.5
highest	0.4	2.6	3.7
	[264]	[456]	[626]

---

There is no problem of small samples in this table, so the relationships can be taken to be firmly established. The first group of localities, those where PDCC work has only just begun, shows no relationship between benefits and economic status at all. What benefits there are in these places are few at any rate as is evident from the extremely low mean scores. The "medium" group shows a clear relationship of the kind we expect, but it is not a very strong one since the scores vary by no more than 1.1 points. Only in the "high" group of localities where the project has been most active is the relationship really strong. However, even there we observe the same phenomenon as in table 4-8, namely, that the strength of the relationship depends almost completely upon the difference between the two extreme categories [lowest: 1.5; highest: 3.7] while the three intermediate categories again show practically no difference.

It can thus be taken for granted that the inegalitarian spread of benefits is at least partly due to the fact that the project has not yet spent the same amount of resources in all localities. What table 4-9 seems to show is that the more effort and resources PDCC spends in a localite, the more likely it is that the better-off residents profit disproportionately from this help. Does PDCC, therefore, increase the existing economic inequality? The following subsection will address this question.

#### 4.4.2 The spread of resources and benefits

Material resources are distributed very unequally among the Chambellan populace. One of the expressions of this inequality is the ownership of animals. According to the responses given in the survey - which are certainly underestimating real ownership - the PDCC target population owns animals of a combined value of slightly over \$300,000, or about \$200 per household. But this average figure does not tell the whole story. While the poorest 18.4% of the families together own only 1.3% of the animals, the richest 10% own 41.6% amongst them. Economic inequality is thus very pronounced in Chambellan.

Figure 4-1

Distribution of Project Benefits and  
Economic Assets (Value of Animals)  
in the PDCC Target Population :  
Lorenz Curves.

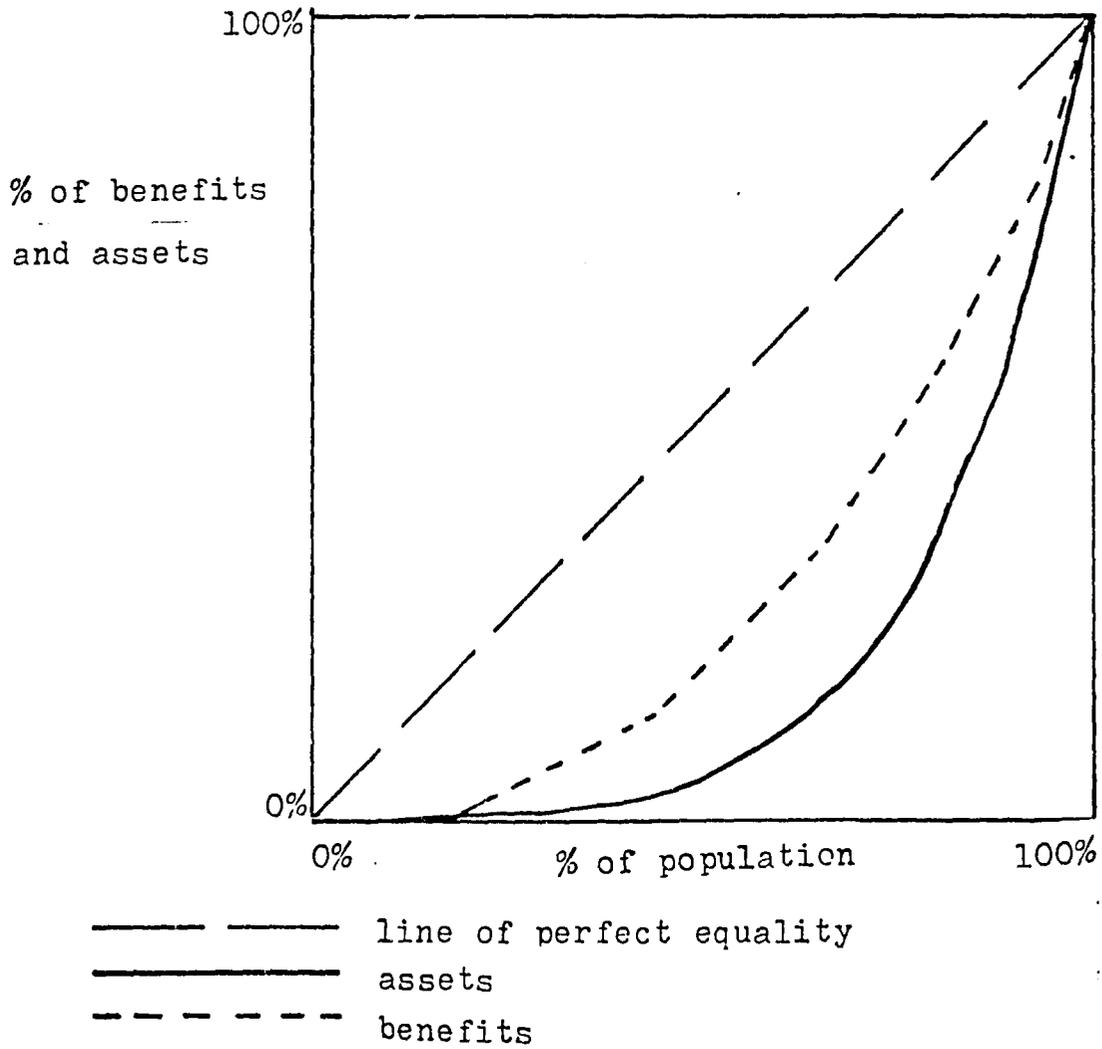


Table 4-10 Value of animals owned by wealthiest households, by level of project activity

<u>Project activity level</u>	<u>Mean value of animals in all households</u>	<u>wealthiest households</u> <sup>1</sup>		
		<u>[a] % of all households</u>	<u>[b] % of all animal value</u>	<u>[b] divided by [a]</u>
low	\$260	23.4%	65.3%	2.8
medium	\$218	22.0%	67.3%	3.1
high	\$204	16.9%	60.0%	3.5

<sup>1</sup> The percentage defined as "wealthiest" is arbitrary and this is due to the fact that it was not practical to subdivide the sample into precise decile or quartile divisions. I have tried to approximate the latter.

Table 4-11 Mean number of benefits accruing to wealthiest households, by level of project activity

<u>Project activity level</u>	<u>Mean number of benefits in all households</u>	<u>wealthiest households</u> <sup>1</sup>		
		<u>[a] % of all households</u>	<u>[b] % of all benefits</u>	<u>[b] divided by [a]</u>
low	0.9	22.7%	17.0%	0.75
medium	2.0	27.6%	34.7%	1.26
high	2.5	15.6%	23.6%	1.51

<sup>1</sup> See the footnote in table 4-10 above.

A similar distribution can be found by scaling the quality of housing and the equipment owned. I have used this part of the data in calculating the economic status scale. But, in order to avoid confusion, I shall be using only the animal ownership scale here.

Figure 4-1 provides a graphic expression of this inequality in the distribution of resources. The greater the deviation of the curve from the line of equality, the greater the amount of inequality in a society. The line drawn [Figure 4-1 above] for animal ownership shows the very considerable amount of inequality in existence in the PDCC target area.

How does this inequality vary according to the level of project activity? Again, using the three groups of localities of low, medium, and high levels of project activity as presented in table 4-7, we first note that average animal ownership is greatest in those areas least touched by PDCC. The average dollar value of animals per household declines from \$260 to \$218 and \$204 as we move from low to medium and high project activity, indicating that in the "high" localities such as Hainault people will use other means of saving and investing money than just animal ownership. The share of all animals owned by the wealthiest households, however, increases, as is evident from the last column in table 4-10 above, even if the increase is not a dramatic one.

If we now turn to the distribution of benefits, we should first have another look at figure 4-1. The curve of inequality for benefits is much flatter than the one for animal ownership. Project benefits are more universally available to the population than are animals. Nevertheless, it is still a rather pronounced curve, indicating that a considerable amount of inequality in the distribution of benefits exists. A small number of households do receive many benefits, and a much larger number of households obtain a lot fewer benefits.

It will be useful to remember that only nine types of project benefits

are included in the scale and that no household scored higher than seven points. In table 4-11 above, as in table 4-4, the various benefits are treated simply as points without attributing different monetary values to each one of them.

Table 4-11 shows first of all what we have already observed, namely, that the level of project activity has a direct impact upon the number of benefits received per household. The values in the first column increase from 0.9 to 2.5 in expression of this relationship. Secondly, we find that the greater the level of project activity, the greater the proportion of benefits which accrue to the wealthiest families. Only in the "low" category of localities does the project in effect favor the poorest segment of the population - as expressed by the proportion of 0.75 in the last column. In the majority of localities, the wealthier families benefit more from PDCC activities than their numbers would let us expect.

What conclusions can be drawn from all this? The first and most important one is that we have not been able to establish a causal link between project activity and local inequality. No more than a general impression can be formed, but it is a potentially disconcerting one. Both material resources and project benefits are unequally distributed in Chambellan. This can hardly surprise anyone since project benefits most often represent material advantages or investments. But it is found that the higher the level of PDCC activity in a locality, the more likely it is that the wealthiest residents receive more of the project benefits. If this trend persists into the future, and if benefits start generating increases in local incomes, then PDCC will indeed be contributing to even greater economic inequality in the area.

It should be repeated that the data provide a warning and not proof of mounting inequality, and that the inequality observed is not extreme yet by any standards. It is in fact much less pronounced than the

existing local economic inequality. According to the survey data, it is not true that the local elite has reaped all or even most of the project benefits, nor is it true that the poor have been completely excluded from project benefits. What is true, however, is that the "rich" have received more than their share and that they appear to profit even more as project activity expands. This is a finding that should be studied closely as the future course of PDCC is being charted.

## 5. THE IMPACT OF PDCC UPON THE TARGET POPULATION

### 5.1 Measurable Impact

Not all project behaviour is tangible. Intangible impact includes the attitudinal and behavioural changes introduced by the project. For example, the presence of a foreigner and a project raises expectations of all kinds. Success or failure of project activities result in changing attitudes towards those perceived to be responsible for these activities. Demonstrated material success has the potential to provoke imitational behavior whose specific pattern is, however, only partially determined by that success. All of these are very difficult to measure since changing attitudes and behavior never have a single determinant.

Another class of benefits is more tangible but nevertheless hard to assess. These are the benefits accruing directly from dealing with the project. No outsider can come close to a complete documentation of such benefits and even insiders have only fragmentary information. The following examples may illustrate what I mean:

- One of the first major deals of the project was to buy the "Hainault farm". It was bought [legally and with land survey (arpantage) and title from a group of inheritors headed by a man who subsequently became president of the groupement communautaire of his localite. The land was bad and useless for its purpose, a fact which PDCC - but certainly not the seller - was unaware of. The seller probably made much more in the deal than what he could have received in the local real estate market.
- The cooperative which, although independent, is virtually run by PDCC, also bought land, in part for projects such as its corn mill, in part for unspecified purposes. The seller in one case was a Chef de

- Section Rurale, in another case his local representative. The latter also leases some land to the cooperative which is subsequently leased to some of its members. There can be little doubt that these land sales and leases are profitable for the notables in question.
- The water system is of great benefit to the people living along the Chambellan road. Only one branch to the other side of the valley has been made and only one fountain connected to it - next to the house of the mother of the president of the Conseil d'Action Communautaire.
- The land at the Hainault farm, originally partitioned for use by seven strategic groups, was then almost totally abandoned. It has since been plowed, using the cooperative's bulls and plow, and is now being planted for their own profit by some of the PDCC animators. No rent is being paid for the land.

These examples have several traits in common. The beneficiaries are all part of the local elite. They are not in need of assistance but have skillfully channeled project resources their way. Some part of this situation is probably unavoidable. Who, after all, could afford to sell land if not those who own most of it? The pattern is not in itself disturbing; it would be, however, if combined with a similar bias in other project activities.

The most tangible and most easily measurable project benefits are salaries and other forms of remuneration received for work, access to agricultural inputs such as seeds and pesticides and the like. Instruction in production techniques, extension services, credit, storage facilities, and other means of increasing production, reducing losses, and augmenting profits also fall under the heading of benefits which are both

tangible and measurable. Ideally a project would keep records to document productivity increases over time, both in controlled experimental settings and on peasant lots. PDCC has not yet accumulated such valuable information, but can be expected to do so in the near future. I have prepared a standard form for this purpose.

Not all project benefits are economic and some can only be described very inadequately in economic terms. Such is the case of the example treated next.

## 5.2 The Impact of the Nutrition Program

### 5.2.1 The nutrition program

Given the poverty of the average peasant family and the prevalence of malnutrition, especially in the rural population on the hillsides surrounding Chambellan, it is understandable that a nutrition education program was established as a constitutive part of PDCC from the very outset. The project paper relied on the baseline study as sufficient evidence, stating that it "clearly indicated the pressing need for a nutrition education and recuperation center in the zone". Even before the advent of AID funding, such a center "was constructed by the community council of Hainault with the help of PDCC [PP: 5].

It is true that the baseline study had in fact recommended the construction of such a center [although the recommendation is curiously missing from the English translation of the text]. The data upon which the recommendation was based, however, is hardly compelling. Instead of monitoring the growth of children over time or weighing a cross-section at one time, the baseline study relied on the memory recall of foods eaten by the population on the day preceding a survey interview. We must assume that the information gathered was neither complete nor reliable, but that it seemed to confirm the research team's visual observation of undernourished children in the area. However, no consideration

is given to the question whether a nutrition center is the best, the only, or the most cost-effective means of reducing malnutrition. While the first leap of faith [about the existence of malnutrition] is entirely understandable and excusable, the second one - that a center is the solution - is much less acceptable. It has in fact raised the expectations of the population and led to the accusation that PDCC is guilty of yet another broken promise.

The purpose of PDCC's program at the nutrition center was to [a] conduct nutritional and sanitary education with groups of mothers and [b] weigh, examine, and provide food for children with participation of mothers [PP: 18]. It was hoped that the educational component would be contagious, leading to changes in behavior even among non-participants [PP: 12]. After three years the authors expected "a measurable decrease in mortality and morbidity rates" in the area [PP: 26] due to the combined effects of the nutrition and health programs.

The nutrition activities at the Hainault center started in 1981 and closed down in 1982, after first having moved on to a different location in Grand Fond. The reason given for closing it was that the feeding component had grown out of hand, at the expense of the educational component.

The records of the nutrition center are probably incomplete in the sense that they do not adequately enumerate the numbers of children fed. However, some of the children who were fed regularly were also weighed, and these records do exist. They provide a precious source of information and allow for an assessment of project impact at least in one area [nutrition] and for one group of beneficiaries.

#### 5.2.2 Impact measurement

"No other age group in developing countries is more at risk of severe disease and death than infants and children from birth through age four...

The most fundamental phenomenon at this stage of life is the relationship between the infant's nutritional state and infections" [Clinton, 1979: 281; 288]. While PDCC's nutrition center did not keep complete health charts on its clients, it did weigh them once a week and used standard forms to record the information. There is no written record of how these clients were selected in the first place and the person who was in charge of the nutrition program has since left PDCC and could not be interviewed. It appears, however, that the majority of the program participants were selected on the basis of home visits by PDCC nutrition agents. Whenever they found a severely malnourished child in a peasant household, they invited mother and child to participate. These children received daily feedings and were thus given a chance to improve their nutritional and general health status dramatically. The assumption underlying the operations of the center was that all or most of the improvement would be permanent thanks to the educational component of the program.

The impact measurement was performed in the following steps:

1. assembly of the original weighing charts and records at the PDCC office
2. selection of cases for the follow-up
3. recruitment of two of the original nutrition agents familiar with the population, the weighing procedures, and many of the children
4. announcements in the localities concerned on the days preceding the weighing
5. weighing of children at the site of the original nutrition center in Hainault
6. home visits to children who had not been brought to the center
7. verification of results
8. coding and hand-tabulations of results
9. comparison with 1981/82 data for the same children

The total number of records kept at the PDCC office was 69. It is probable that this represents the actual total number of children who had been officially processed by the center. An undetermined number of additional children would also appear to have profited from free meals provided at the center.

Of the total of 69 children, 30 were excluded because they had been born before May 1, 1979 [21], had never been severely malnourished [7 were degree I or normal weight when starting the feeding program] or simply lived too far away to be included in this modest follow-up survey [2]. This left a total of 39 children in the sample. All of them were weighed during the first week of May, 1984, with the exception of 7 who had died and 3 who had moved away.

In addition to the graduates of the nutrition center, the mothers were asked to bring along their next younger sibling. This should allow for the assessment of the educational impact of the program independently of the feeding component, since these younger siblings had the benefit of their mothers' learning experience without having themselves participated in the program. This particular aspect of the survey was limited, however, to the siblings of those children who had survived; it produced data on 15 additional children.

The determination of undernourishment generally relies on relating a child's weight [and frequently height] to common local standards of normal growth.

It is of critical importance that the child's age be known since the same weight can mean different things at different ages. For example, a weight of 9.0 kg in Haiti represents normality at 12 months, degree II malnutrition at 24 months, and degree III at 39 months. We found that the ages of the program participants were recorded correctly on the PDCC charts. For their younger siblings we requested to see birth

certificates and succeeded in obtaining them in most cases.

### 5.2.3 Results

The results to be presented here fall into two categories: measurements and estimates. The measurements include the weight of children at the beginning and end of program participation and in May, 1984. Estimates include all comparisons with standards of normality and malnourishment. These comparisons had to be done visually by using a weight chart such as the one represented in figure 5-1 below. More precisely, I divided the degree categories in the figure into ten fields and estimated into which of them a given child fell at the three dates of measurement. This procedure allowed for a comparison of nutrition status independently of the advancing age of the child.

Table 5-1 below summarizes the change in nutrition status between the beginning and end of program participation. It was found that 70.2% of all children for whom data was available showed improvement and only 8.2% displayed worsening of their nutrition status. Keeping in mind that all of the participants were degree II and III malnourished, this can hardly be a surprise. It is quite likely that these children received, for a few months, better food in terms of quantity, quality, and balance of nutrients than at any other time in their brief lives. Those eleven children [29.8%] who did not improve in nutrition status must have been suffering from serious illness, preventing them from absorbing all of the nutrients, or, perhaps, from inappropriate treatment by misguided mothers who stopped all other feeding for the duration of the program.

There can be no doubt that in terms of temporarily improving the nutrition status of participants, the program was a success.

Let us now turn to changes between program participation and May, 1984. While the previous comparison suffered only from the variable length

Table 5-1 Change in nutrition status between beginning and end of program participation, by sex

<u>Change in nutrition status</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>	
			<u>N</u>	<u>%</u>
improvement	10	16	26	70.2%
no change	4	4	8	21.6%
worsening	1	2	3	8.2%
<b>TOTAL</b>	<b>15</b>	<b>22</b>	<b>37</b>	<b>100.0%</b>
no data	1	1	2	

Table 5-2 Change in nutrition status between end of program participation and May, 1984, by sex

<u>Change in nutrition status</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>	
			<u>N</u>	<u>%</u>
improvement	5	7	12	33.3%
worsening	6	11	17	47.2%
child deceased	4	3	7	19.5%
<b>TOTAL</b>	<b>15</b>	<b>21</b>	<b>36</b>	<b>100.0%</b>
no data	1	2	3	

of program participation, this is now confounded by the variations in time elapsed since program participation ended. Most children ceased participating between June, 1981, and August, 1982; the variation in time elapsed can thus reach more than one year. However, the minimum is 20 months - certainly sufficient time to cancel most program effects if they were limited to feeding alone.

The picture represented in table 5-2 above is a disappointing one. Only one-third of the children have been able to sustain their recovery from severe malnutrition beyond the termination of the program. The research procedure controlled for age and de facto treated weight as a proportion of normal weight rather than a fixed number of kilograms. Even a child whose growth had been stunted permanently before joining the program would thus still be recorded under "improvement" if some relative progress had been achieved. Despite this procedure, the program, as seen from the viewpoint of table 5-2, has not had much beneficial impact. The fact that almost one child in five died is a particularly depressing result.

The parents of these children had been given high hopes by the program, and one cannot help but connect the administrative decision to close the center with the fate of the children - that connection, at least, has been made by both the project staff and some of the local populace. There is clearly no easy way out of such a dilemma.

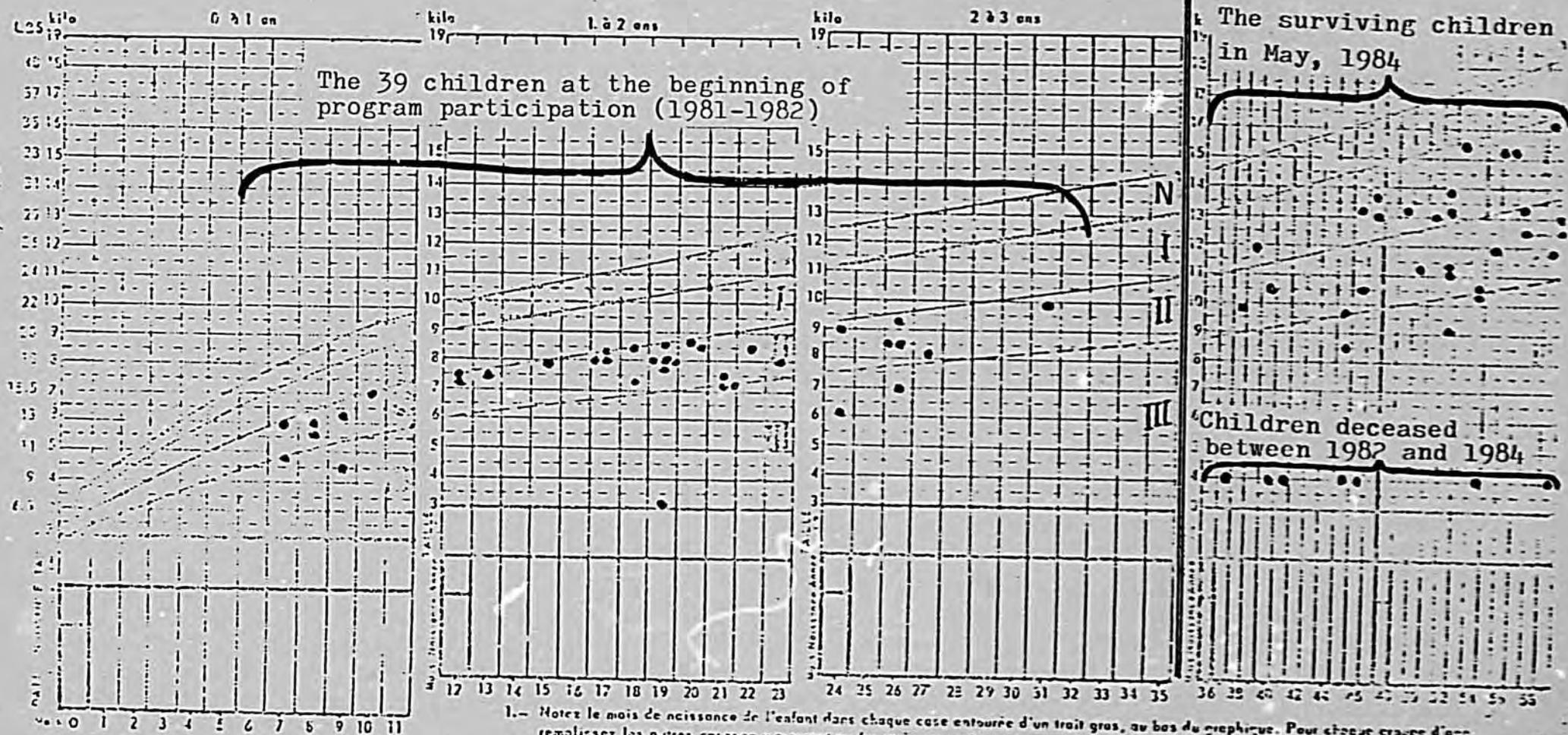
The most appropriate evaluation of project impact can be made by comparing the situation before and after introduction of an activity. Fortunately, this is possible in the case at hand. Figure 1 below gives a visual representation of the distribution in 20 cases on the first day of treatment and in May, 1984, which is on the average a span of two years later. The most significant finding here is the spreading out

Figure 5-1

Weight Distribution of Children at  
Beginning of Nutrition Center  
Attendance, and in May, 1984

REPUBLIQUE D'HAÏTI  
S LA SANTE PUBLIQUE ET DE LA POPULATION  
BUREAU DE NUTRITION

GRAPHIQUE DE POIDS/AGE DES ENFANTS DE 0 A 5 ANS



- 1.- Notez le mois de naissance de l'enfant dans chaque case entourée d'un trait gras, au bas du graphique. Pour chaque groupe d'âge, remplissez les autres cases en y ajoutant au fur et à mesure les mois suivants.
- 2.- Indiquez le poids par un gros point noir correspondant à la ligne du poids de référence placée à gauche et au milieu de la colonne du mois approprié. Reliez par une ligne les points sur le graphique.

of the distribution - statistically-minded readers would call it an increase in the standard deviation. On the left side of the figure, the cases are pretty much aligned within the second degree category while on the right side we find that most of them have moved above or below that level.

The figure also shows a concentration of the deceased children [5 out of 7] among the younger program participants. Among the children of the youngest age quartile, 50% died as compared to 25% in the second, 0% in the third, and 15% in the fourth quartiles. This accentuates the fact that younger children are at greater risk than older ones, not just because of their lower defenses immediately after weaning, but also because the older ones represent a selection of the strongest and the most fortunate children - their less fortunate companions having died already before the establishment of the nutrition center. A larger study allowing age controls would confirm this impression.

Table 5-3 Change in nutrition status between beginning of program participation and May, 1984, by sex

<u>Change in nutrition status</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>	
			<u>N</u>	<u>%</u>
improvement	8	12	20	55.6%
worsening	3	6	9	25.0%
child deceased	4	3	7	19.4%
	<hr/>	<hr/>	<hr/>	<hr/>
Total	15	21	36	100.0%
no data	1	2	3	

Table 5-3 above is the most optimistic presentation of the nutrition data. It shows the change in nutrition status between the beginning of program participation and the time of the evaluation. It was found that 55.6% of the children have improved in nutrition status while less than one-half have declined or died. As in the previous tables, there is no significant difference between boys and girls; this table gives no support to the claim that boys in Haiti receive preferential treatment resulting in lower mortality and better nutrition status.

Several comments are in order concerning table 5-3 above. First, the data is presented in a very simple form without indication of how much the situation of the children has improved or worsened. It must be said in all fairness that the improvement was occasionally quite negligible, i.e. on the order of 2% of body weight. While a child who has moved from third to second degree malnutrition is no doubt much better off than before, the fact is that he/she is still so seriously underweight that any minor infectious disease can become life-threatening. Not one of the children has reached normal weight, although two have come quite close to this level.

It should not be assumed that the seven fatalities in the group were necessarily all due to malnutrition. Experience indicates, however, that whatever acute illnesses were the immediate causes of death, the nutritional status of those children probably played a critical role in making otherwise innocuous diseases fatal. Nor should it be assumed that those 20 children whose status improved were doing better because of their previous participation in the program. Many other factors might have been at work at the same time or later, from overcoming a chronic disease to receiving more food by virtue of a good harvest. The nutrition program was started before the local economy had fully recovered from the devastation wrought by Hurricane Allen [in 1980]. The data contained in table 5-3 are the best available, but the study design was clearly not a controlled experiment. While the program had

a strongly positive impact upon the children's growth over the short term [table 5-1], a long term beneficial effect has not been proven.

Two examples may serve to round off this description. Fritznel was admitted to the program as a second degree malnourished child and worked his way up into the first degree over a period of four months. Three months later a check-up reveals that he has reached normal weight. Today - 26 months later - he is only 200 g below normal weight. He had received 81 feedings over a five month period. His success was dramatic; however, his younger brother was not available for confirmation of the educational value of the program. He had died some time ago.

Fédor's example is less encouraging. He, too, was admitted as degree II and showed dramatic improvement - by 1.9 kg - over ten weeks, coming close to normal weight. After the termination of the program he declined rapidly; today his undernourishment is of degree III. His 37 feedings over ten weeks seem not to have left a trace.

#### 5.2.4 Discussion and conclusion

The follow-up study could not include more than a small number of children; one should thus be careful about generalizations. A similar study in the Artibonite Valley, using larger numbers and a better design, has found long-term beneficial effects of the feeding program in 75% of the participants [Berggren, 1984]. Compared to this, the results reached at Chambellan were modest.

The data collected on younger siblings of the sample children is only partly pertinent to the discussion at hand since several of the younger siblings are still being breastfed. About two-thirds of them are doing better than their older brothers and sisters, but their numbers are small and the samples are not strictly comparable - the "worst" cases having been systematically omitted from the younger sample. For a fair evaluation of the educational component of the nutrition program, the data

on younger siblings is inadequate.

Was the closing of the nutrition center justified? The evidence seems to support the move or, at least, does not provide a compelling argument for re-opening the same operation. Nobody can conceive of a permanent feeding program as the final solution to malnutrition in Chambellan - one of the most "prosperous" areas in all of rural Haiti. As a stopgap measure it could be justified only [1] if it had produced truly spectacular results - at least equaling those reported for the Artibonite region, or [2] if its educational aim could not be reached better in some other way. It appears to this evaluator that PDCC has devised and implemented other programs whose nutrition impact over the medium and even short term is considerably more promising. A combination and expansion of the work on nutrition seminars, "family promotion", and vegetable gardens is much more in line with our standards of development work; it increases both productivity and peasant autonomy, neither of which can be said about the old program.

Curiously enough, these other means also appear to be more cost-effective. The nutrition/education program at PDCC was budgeted to cost almost \$20,000 over the 1981/82 and 1982/83 fiscal years. I have not been able to assess how much was actually disbursed, but if it was anywhere near this total amount, then it would appear that the center operation was an expensive way to feed 69 children for an average of three months each. Project staff told me that the feeding got out of hand and the center degenerated into a daycare facility of little value to nutrition education. PDCC can clearly do much better than this; its current approach is far more promising on many counts.

### 5.3 Cost-Effectiveness of PDCC Activities

#### 5.3.1 Monetary costs

It has proven impossible to track down the cost of various project activities over the past three years with any degree of accuracy. The principle reason for this is not inaccurate bookkeeping, but rather the fact that almost every project employee's time was spent on a variety of activities falling under several of the major budget headings. This may be a very reasonable way of running a project, but it precludes a conventional cost/benefit analysis since salary costs - the major items in most cases - cannot be disaggregated according to activity.

Figure 5-2 summarized the specific project expenditures for the three budget years. The expenditure on public works has fallen drastically, from \$22,600 to \$9000 over this period, coming to a total of \$31,600. We have seen in section three of this report that public works projects ["rural infrastructure"] have not been an area of great achievement. Despite massive expenditures, PDCC has failed to come even close to reaching its goals here. Cost effectiveness has been low in terms of project expenditures, and extremely low if the massive donation of free time by the local population is taken into account. The 29,000 man-hours spent on the road have a value of at least \$6,000 even in rural Haiti, and that sum represents a much more formidable investment than money earned in Canada or the United States.

Expenditures in agriculture have been more constant, fluctuating between \$11,100 and \$19,000, for a total of \$44,000. The effect of this spending has been considerable, resulting in the improved cultivation of 72 hectares of mixed crops and in the building and planting of 328 vegetable gardens. Besides, there is an as yet undetermined effect on cocoa and coffee yields which might well be in the thousands of dollars. Cost effectiveness has been good in this area. Section three has shown that most of the goals have been reached. If the improved research component which I recommend in section seven is actually implemented,

then it will be possible in the future to estimate the material benefits in agriculture with greater precision.

Education has cost over the years some \$34,000. This sum has bought some great successes, such as the formation of women's groups and the integration of women into strategic groups, as well as some near-failures in the literacy program. Overall, however, PDCC does some good educational work and the recent intensification of activity around community schools and pre-school programs is very promising. Cost effectiveness in the educational area was generally good.

Spending in health, nutrition, and environmental sanitation has gone up from \$10,700 in 1981/82 to \$15,300 in the last year, for a total of \$36,300. This increase happened despite the closing of the nutrition center in 1982 and is mainly attributable to the expansion of the potable water system in Chambellan. In section three we have observed that several of the goals in the nutrition and health fields have not been attained. But the potable water system alone is such a blessing that it would probably justify much higher expenditures. Many hundreds of families now have access to clean water, and some of them - those living close to the pipes and sources - have access to abundant supplies. A most modest estimate is that this water system saves one hour of work per day for every household affected; this amounts to some 1000 hours of work saved every day of the year.

Let me speculate on this point for a moment. In economic terms, the water system has three main effects: [1] it frees child labor for productive pursuits such as tending to animals, weeding vegetable gardens, and the like; [2] it reduces the morbidity [and probably also the mortality] rate of the adult populations, thus reducing medical expenditures and the opportunity cost of illness; and [3] it increases the productivity of the working population and of plantings that profit from the increased availability of water. Conservative estimates would put the total of the savings and productivity increases at \$7,300 per year

for the first effect [for 1000 child hours at \$0.02 per day], at \$10,000 for the second [for \$5 saved by 2000 adults], and \$3,200 for the third [assuming a 1% increase in the PCI of 4000 affected people]. The total of \$20,500 in all likelihood grossly underestimates the annual economic benefits of the Chambellan public water system. It is clear that the system more than pays for itself over the first year and produces enormous economic benefits from then on.

Project expenditures for welfare have come to \$25,100 over the three years. Much of this has gone towards the construction of social centers. Some of these centers have probably cost more than they are worth, but the new policy of handing out small block grants of \$500 and \$1,000 is very good and cost effective. The justification for having these centers is not always very convincing; in some instances local churches might have been used for the social functions of the centers. But since many of them perform a dual function as classrooms for community schools, for pre-school courses and literacy classes, the money saved on social centers would probably have been spent on classrooms and schools.

The formation of peasant groups and the articulation of community organization is not an easy task. The PDCC leadership over the years has believed that social centers help this mobilization effort. Cost effectiveness overall has thus been satisfactory.

Industry and commerce is a different matter entirely. The \$32,000 sunk into this sector has thus far produced hardly any discernible economic benefit. Both Cos-Hainault and the metal workshop [the only budget items in 1983/84] have some potential but it will take many years for them to recover their investment outlay. Only social benefits could possibly justify the expense, and they are genuinely impossible in the areas of industry and commerce unless significant economic benefits materialize along with them. So far the cost effectiveness in this sector has been low.

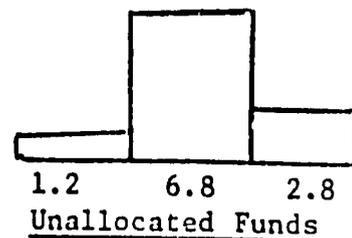
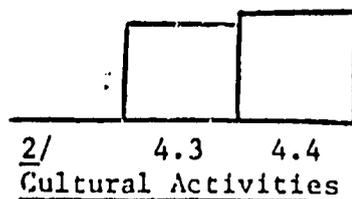
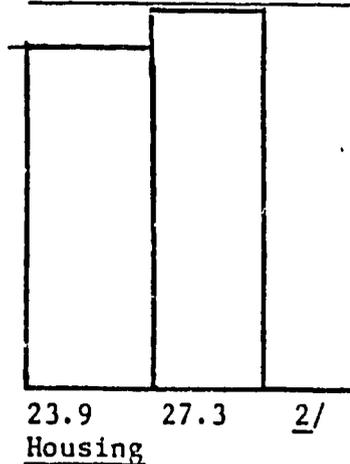
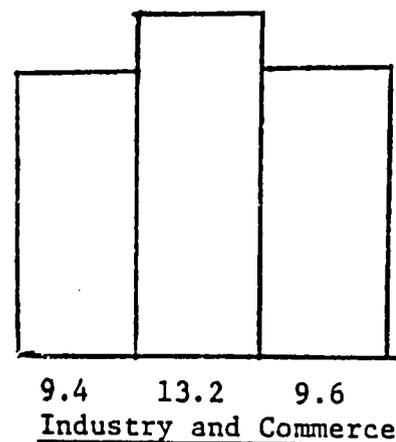
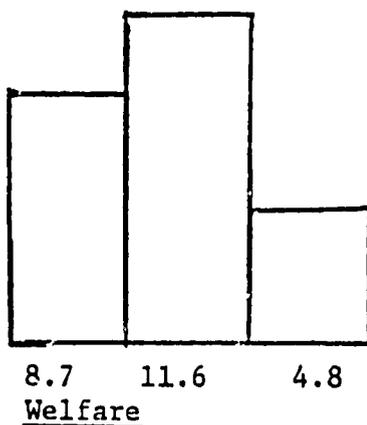
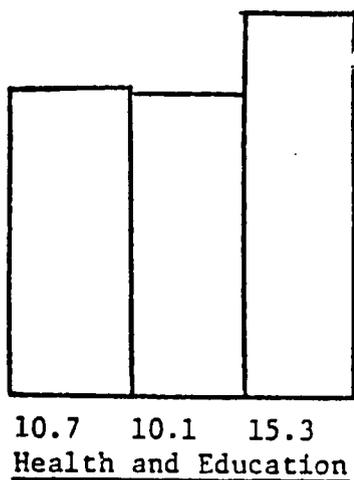
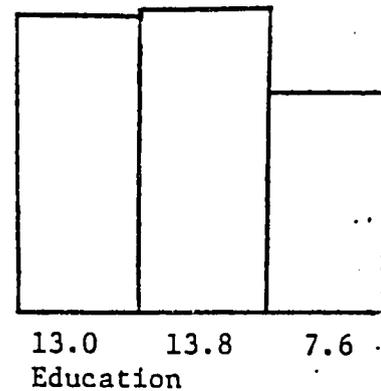
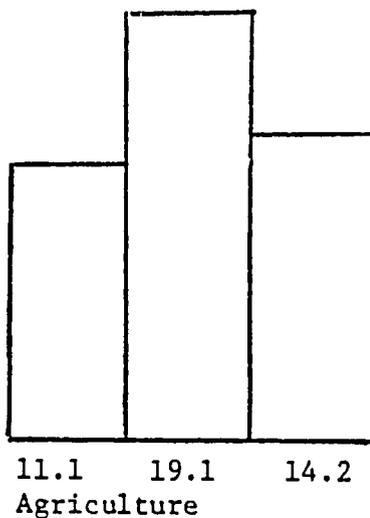
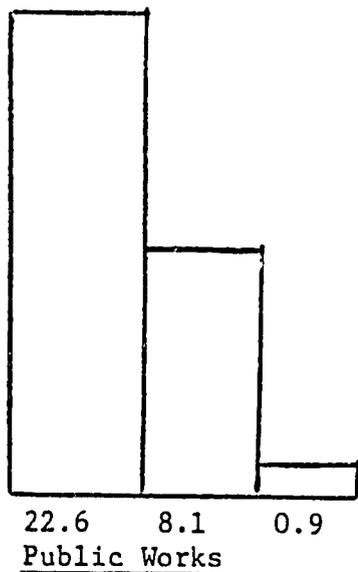
The great expenditures for housing - \$51,200 over two years - have gone almost entirely into the construction of the residence at Noré. What needed to be said about this has already been said in the two previous evaluations and in the various trimestrial and annual reports. The construction was expensive, plagued by delays and in some aspects quite inappropriate. It absorbed an inordinate amount of staff time - a loss which is not expressed in the monetary figures. Further, the construction stoppage left the center with a vegetable garden planted on a foundation [intended for another building] which is as ridiculous as it is wasteful. Cost effectiveness of the building program was low.

But there is no point in continuing the accusations of the past. The fact is that today PDCC has a center which is operative, close to some of its land, and is in many ways more than adequate.

Cultural activities and unallocated funds absorbed a total of \$19,500 over the three years. Under these headings we find such items as "animation folklorique" - the usefulness of which escapes me - and "small projects", which may be very legitimate and promising in a context of "bottom-up" development but are no more than marginal at PDCC. Their cost effectiveness cannot be estimated here.

"Specific project expenditures" is what the development effort is all about. This is the budget item which remains for work on location once the Port-au-Prince office and staff, the air transport and overhead, and many more things have been paid for. All expenses other than the "specific project expenditures" have no sense whatsoever without the latter and there clearly must be some balance between what it costs to run a project and what is actually spent "specifically" on location. The specific project expenditures of PDCC came to the following amounts:

Figure 5-2 Specific Project Expenditures, 1981/82 to 1983/84 <sup>1/</sup>  
 (Figures in \$1000s)



<sup>1/</sup> Source: Annual Reports 1981/82, 1982/83 and 1984/85 (financial part) of the Save the Children Alliance, Haiti.  
<sup>2/</sup> Data unavailable at the time of writing.

Table 5-4 Specific project expenditures at PDCC, 1981/82 to 1983/84

<u>Year</u>	<u>Total</u>	<u>Budget</u>	<u>% of annual budget for specific project exp.</u>	<u>% of total annual budget</u>
1981/82	\$101,012	\$118,500	85.2%	49.2%
1982/83	\$117,198	\$130,000	90.2%	47.0%
1983/84	\$59,881	\$60,250	99.4%	25.6%
TOTALS	\$278,091	\$308,750	90.1%	40.3%

According to the project paper, PDCC had a total budget of \$999,754 over three years. The figures used in table 5-4 are considerably lower, amounting to a total of \$668,450; the source of these latter figures are the three annual reports [AEDC, 1982, 1983a, 1984]. The last column of the table shows that specific project expenditures never reached even one-half of the total project cost and were almost cut in half between the 1982/83 and 1983/84 years, reflecting in all probability the severe reductions in public works and housing. All other major budget headings were also cut in half over the same period, but none quite as drastically as public works and housing. After what we have learned above concerning these two sectors, the cuts probably resulted in an increase in the overall cost effectiveness of PDCC between 1982/83 and 1983/84.

### 5.3.2 Social costs

Development work always comes at a cost, not only a cost to the foreign donor but also to the local recipient population. In the case of the population at Chambellan, at least five types of social cost can be distinguished:

1. The work of PDCC has greatly strengthened the community councils and their groupements. There is considerable discrepancy in reports

on their existence and activities prior to the advent of PDCC, but it appears that in 1979 only a very few of them were functioning. Since then they have become recipients and conduits of funds and have greatly expanded in numbers and membership. This has allowed local leaders to extend their control over the poorer peasantry. In these cases, PDCC has served not to strengthen the general community, but rather the hierarchy which controls it; rather than directing most of the benefits to the neediest peasants, much of project benefits have gone towards those who are already best off. Nobody in Haiti, from CONAJEC to the lowly peasant, can ignore the political nature of the community councils. PDCC has revived and strengthened an existing hierarchical political structure.

2. The "community participation" so frequently mentioned in the project paper appears to have taken the form of coerced labor in certain instances. While it is no doubt true that peasants are free to refuse the donation of their labor, one has to realize that the call for participation comes from the local leaders, i.e. the very patrons upon whose goodwill the smaller peasant must often depend for loans and jobs and in many other aspects of everyday existence. Some of these leaders are in positions of considerable authority and most of them are intently aware of the need to maintain good relations with the highest levels of the local hierarchy. If work was done on peasants' plots only, then one could speak about cooperative work arrangements, and PDCC is certainly one of the sponsors of such work. However, most community work is simply directed at improving an infrastructure neglected by the government. Unpaid labor is thus extracted from those who are in no position to refuse and for projects which are not necessarily of benefit to them.
3. It is quite likely that PDCC has thus far contributed to an increase in local economic activity. This is, of course, impossible

to verify since no household-level data is available from the baseline study, and the increase would probably not be large enough to be statistically significant. Nevertheless, the expenditures made in town and in the valleys, rather than up in the hills, the special deals made for buying and working land, and the extension services [which help farmers in proportion to their holdings] all make it likely that PDCC has, in some sense, stimulated inequality.

4. Two of the project's greatest achievements are the improved cultivation practices on 72 hectares of land and the 328 vegetable gardens. They have in common the more intensive and productive farming of the land. This very same practice makes the cultivation more vulnerable to pests. So far the project can to some extent combat this by the application of pesticides. It cannot be taken for granted, however, that such agricultural inputs will be available locally once the project will have withdrawn. Farmers will then revert to their traditional pattern of extensive cultivation and inter-cropping. The change in cultivation techniques makes them more dependent on foreign imports such as seeds and fertilizers and this dependence may one day work against them.
  
5. Finally, PDCC brings modernization and change to an area which has not seen much of that yet. Roads are built, permitting deforestation and land erosion. Educational levels are improved, stimulating the emigration of the more educated population to Port-au-Prince and abroad. Medical services and public hygiene are improved, advancing the "democratic transition" and population explosion. The increase in population increases the pressure on land and its degradation. Already there is evidence that land use has intensified and fallow periods shortened [Duperval et al., 1980]. This entails a decline of soil productivity and the change away from perennial crops. This in turn increases the vulnerability of the land to the destructive forces of nature, such as heavy rainfalls, storms, and

hurricanes.

The winds of change have come to Chambellan, and PDCC, the largest enterprise in town, bears some responsibility for this. Much of that change is necessary and many of the blessings are obvious. In section three of this report I have listed many of the benefits PDCC has brought to the local population. The balance between those benefits and the costs listed here is positive overall. But we should not forget that, however small the cost, much of it will fall on the shoulders of those least capable of bearing it.

## 6. STRENGTHS AND WEAKNESSES OF THE PROJECT

### 6.1 Major Achievement

#### 6.1.1 Peasant group formation

The project paper defined strategic groups as the means by which PDCC goals are to be realized. These groups are composed of about a dozen individuals with similar backgrounds and interests. Twenty such groups have been formed thus far at the time of this writing. As we have seen in section three, these strategic groups are predominantly female in membership. They have been instrumental in reaching the high level of PDCC's performance in the area of vegetable gardens, but they have had virtually nothing to do with most of the twenty-three activities listed in that section.

Many of the strategic groups formed in previous years have in fact ceased to exist. Figures on this are not kept and are almost impossible to obtain. This process should not necessarily be viewed as a failure since some of the strategic groups have simply reached their goals and not emerged with any new ones. But it is clear that the project leadership would like to see the formation of stronger, longer-lasting strategic groups.

Similar in size are the groupement sylvicole in the project area. They are not a creation of PDCC but are nevertheless an indirect product of its efforts. PADF does not do much more than provide the logistical links between donor agencies and local NGO's. PDCC can take some credit for the fact that it has been instrumental in starting to turn the tide in Chambellan's struggle to stem the destruction of its vegetative and soil cover.

Only in the last paragraph of the annex to the project paper do we find any mention of the Conseil d'Action Communautaire [CAC]. This is truly

an astonishing circumstance for any observer of PDCC's current operations, since so many of them use the groupement communautaire of the CAC as the basic vehicle of activity. The writers of the baseline study were apparently fully aware of the role of this "complementary system of local community government" [PP: App. A, 6].

But somewhere between the writing of the project paper and 1984, the orientation of activity was changed and the CAC groupements rather than the groupes stratégiques became the instruments of PDCC work. Several members of the Chambellan staff have pointed out that the CAC is used by PDCC as no more than a contact point, as a mere recruitment base for strategic groups. But this is not supported by my own observations. The following indicators lead me to believe that the CAC plays a role of great importance for PDCC activity:

- the "recruitment basis" is also a selection basis: CAC leaders chose not to become involved in strategic groups, or at least in those aspects of membership where manual work is required.
- the construction of the road to Carrefour Didier [Section 3.1.1] is the single most ambitious and absorbing activity undertaken by PDCC; it is entirely based on working with the community council groupements.
- the activities of Cos-Hainault and CopCod, which absorb a considerable amount of the project's energies, are closely tied with the CAC groupements. Virtually all PDCC animators are CAC groupement members - some of them on executive committees - and several of these animators play a role of critical importance in the two cooperatives.
- CAC groupement leaders have been some of the chief beneficiaries of PDCC activities and deals.

- According to PDCC staff and based on my own observations, the revival and founding of most CAC groupements in the area is the direct result of PDCC activity.
- some of the project's most obvious visual representations, whether intentionally or not, are the social centers. All of these were built according to requests, with the participation and, sometimes, according to the specifications of the CAC groupements.

This list could be extended, but the message would remain the same: the CAC organization serves as much more than just a recruitment base for the project. Those lowly activities in which the women work and decide are handled by strategic groups. But all those things which involve real money, power, and prestige are handled by men and by CAC members, and never against the wishes of CAC leaders.

A total of 23 groupements receive "encadrement" - organizational, logistical, and occasionally limited material support - from PDCC, including those at Mathieu, Terre Rouge, Daniel, Lavalette, Chochote, Grand Fond, Boucan Milien, Counouque, Shada, Déjean, Noré, Massica, Marie Gauvin, Djanacourt, and Commencé [for the complete list, see Brice, 1984, Annex 4].

The two cooperatives, Cos-Hainault and CopCod, are clearly also major project achievements even though at this time their future is not yet assured and their membership is not drawn from the poorest segment of the population. If they manage to enlarge credit programs, storage facilities, and provide help to cocoa producers, then they will have been worth the effort even if they can hardly be seen as signs of a great rural awakening. On the other hand, if Cos-Hainault cannot manage to make its projects and investments economically viable, and if CopCod turns out to be no more than a commercial outlet for speculators, then PDCC would probably want to let them go their own way and put its considerable resources to other uses elsewhere.

### 6.1.2 Implementation of project goals

Section three of this report has discussed the implementation of project goals in some detail. I have come to the conclusion that PDCC's record is respectable in this regard and can even be considered good if one were willing to disregard those goals which were unrealistic to begin with. The project has been very successful in some activities, has made an honest effort in most, and has experienced real fiascos in only two undertakings. In the opinion of the present observer, PDCC has fulfilled its formal obligations to the granting agencies.

Having said this, it is nevertheless important to point out that much remains to be done. It may well be that PDCC has tried too many things in the vast field of agriculture with a small and not highly trained staff. Dramatic increases in productivity have been obtained only on the small plots now serving as vegetable gardens; and even there peasants can never be certain of achieving great returns on their investment. Skill in planting techniques and pest control can only be acquired over a number of seasons, and most families have had only one vegetable harvest thus far. Animal husbandry has also had no more than a good start up to this point in time. The fish harvests have been very modest and not many rabbits have been eaten yet.

Infrastructural improvements have been significant in the areas of potable water and the slaughterhouse, but much less impressive in the fields of road construction and erosion control. It may well be that large-scale infrastructure work is simply beyond the capability of PDCC and should no longer be a goal of the project. In particular, it is uncertain whether the local needs perceived and stated by local leaders should really be the standard by which the PDCC team should be judged and judge itself. There are always too many needs and there is only one small project in Chambellan. A case in point is the nutrition program which is now back on the right track after previously having

attempted too much and thereby meeting with failure.

### 6.1.3 The PDCC team

Generally speaking, the project has a good field team. It is de facto led by the coordinator, an agriculturalist of great knowledge and experience. I have observed him communicating to a variety of audiences, from pre-school children all the way up to the town elders and have come away most impressed by his communication skills. He is also a tireless worker who is serving as a driving force and a model for others. There is no doubt in my mind that PDCC in its present form could not do without Brice.

Why then is there so much criticism of the coordinator? Leaving personality issues aside, it is fair to say that the most important asset of PDCC's field team is probably not always used in the best way and to the limits of his capacity. He is not an executive, yet he carries an executive burden; he is not a researcher, yet he does the only research for the project; and, he is not an educator, but carries out an educational role. He is a superbly adapted agriculturalist who can make the most of traditional Haitian agriculture by means of the cautious introduction of innovations. This is what he ought to be doing rather than performing a variety of other peoples' jobs.

The administrator leading the infrastructure section and the educator heading all educational activities are both at present overshadowed by the coordinator. According to both my own impressions and the statements by others, they both have considerable talent and have been growing into their professional roles in the course of the last two years. The project will profit from their presence even more in the future as their levels of training and performance are upgraded periodically.

Among the 12 male animators - they carry a variety of titles but do similar things - and the 4 female agents de promotion feminine, there

are some whose devotion and competence are quite impressive. Others are less competent or plainly inappropriate. To give an example of the former, I have observed a female animator who carries more administrative burdens [among other things, as "chef de file", attending additional meetings], walks longer distances, and communicates better than most of her male colleagues. She is also one of the few individuals who have put the innovations introduced by PDCC, such as rabbit breeding and adobe block construction, to intelligent and profitable use. As examples of lack of competence, I should mention animators who mismanage their tilapia fishponds and who, after more than a year of training, have hardly even the most rudimentary notions of pest control in their vegetable gardens.

Let me give one example of personnel selection that I consider inappropriate. Two of the animators are members of the militia [volontaires de la securite nationale, known locally as macoutes]; both of them are commandants, one a former and the other an active one. Their presence on the PDCC team and payroll may be the ultimate consequence of the initial decision of Save the Children to work with the government [hence the contact with DARNDR] and within the established organizational structure [hence the de facto favor given to CAC groupements over the strategic groups]. But does such a pragmatic approach to foreign aid really mean that members of the very apparatus maintaining the Haitian peasantry in its appalling misery have to be hired onto the team? What sort of loyalty to what kind of development effort can be expected from those whose prime interest is the maintenance of the status quo? Goal number one of PDCC, according to its own pronouncements, is to reach higher levels of peasant autonomy. The choice of these two animators belies this objective.

The PDCC field team is thus good overall, but of somewhat uneven composition. Levels of training, competence, and productivity of some animators leave much to be desired. The good ones are probably underpaid while the bad ones are most certainly overpaid for their work. The

presence of the latter on staff obviously affects the morale of the former. Both of the previous evaluations have touched upon the problems of motivation in the field team. It is my impression that the situation has improved since 1983, but there are still too many animators who put in short hours and little effort and are very dissatisfied with their salaries.

In contrast to this combination of low salary, low motivation, and low productivity levels which characterizes part of the Chambellan field team, the Port-au-Prince office enjoys a superb and highly-paid staff. It is clear that this operation would not be overtaxed by running at least three more PDCC's, as long as each one of them had a director.

To conclude this discussion of PDCC's major achievements, let us summarize. The project has [1] successfully mobilized and organized a substantial proportion of the peasantry, [2] successfully implemented most of those project goals which it could have been reasonably expected to have implemented, and [3] built up a staff which is generally good, combining several individuals of excellence and promise with certain others who probably should be doing something else.

## 6.2 The State within the State

One of the problems with any development work in Haiti is the weakness of the institutional apparatus of the state. Since the government is incapable of providing even minimal services in many areas, the temptation for development projects is to try to do everything and to satisfy all the basic needs of the population. "Integrated rural development projects" are especially likely to follow this route since their basic philosophy forbids them from focusing on one need while disregarding other all other areas of concern. PDCC is a case in point, offering services which even in many LDCs are clearly the domain of the government. Arguments in favor of the integrated approach include the one that there is never only one thing which would change the peasants'

situation, that successes in one area are frequently reduced to nothing unless other areas are also strengthened, and that a compassionate analysis of rural regions always points to the complexity and interconnectedness of many problems and needs.

As honorable and reasonable as the integrated rural development approach appears, it is as unrealistic a model as one can apply in practice. To work in many areas requires enormous efforts of training for a large and varied staff; to do it simultaneously is beyond the management skills of most project directors. To create and frequently duplicate the institutions and services neglected by the government involves competing with government and other agencies for a limited number of qualified personnel and to run the same risks of multiple loyalties, low productivity, and sometimes outright sabotage which plagues large employers in general and the government in particular.

PDCC has ventured into so many different areas, trying to replace the government in so many places, that it became overextended almost from the outset. Let us examine its three major fields of activity one by one.

#### 6.2.1 Infrastructure projects

PDCC has been active in the construction of a school, roads, social centers, and a slaughterhouse as well as the capping of springs and an unsuccessful venture into electrification. All this was done on the basis of "community work", i.e. on the basis of paying salaries and fees to those individuals fortunate enough to be on the PDCC payroll or having professional skills to offer while common peasants were called upon to donate their labor for free.

There is much evidence showing that those parts of infrastructure work which were successfully completed were actually accomplished on a "paid

work" rather than on a "community work" basis. This was sometimes done by direct payments by PDCC, while at other times the project hired professionals who included in their fees what they paid their workers. Clearly as a general rule the peasants have only occasionally and reluctantly donated their labor to pay for the infrastructure neglected by the state. "Community work" has not been instrumental in reaching those infrastructure goals thus far attained by PDCC.

#### 6.2.2 Health and education

PDCC has been active in the health field by running a nutrition center, training female animators and women's groups in basic hygiene and nutrition techniques, and offering its support for a new dispensary - an offer which has now been withdrawn. In education, the project has covered all age groups and at least four types of training [pre-school, community school, adult literacy, and teacher upgrading]. The demand for education in rural Haiti is enormous and it is nowhere close to being satisfied in Chambellan.

At the moment of this writing, the project has halted its venture into teacher upgrading and suspended the literacy program. It is thus concentrating on its more successful programs aimed at children. It is not obvious to this observer, however, how much of this educational activity can and should really be carried out in the future. The need is clearly great, but is the conventional school the solution? PDCC seems to say no and I would agree. Duplication or replacement of the government's educational programs can be left to the various religious groups. The project may actually do more good by focusing on its original mission of emphasizing educational work with respect to agricultural development.

#### 6.2.3 Agricultural services

Despite its relatively small budget for "specific project expenditures" and its small staff, PDCC is trying to provide a large number of services

most commonly associated with governmental agricultural extension agencies. Most of the work is centered around the coordinator while many of the hopes for the future rest on the cooperative. It will have to be seen whether Cos-Hainault possesses the administrative capacity to supply seeds, pesticides, and fertilizers on time, to extend and oversee credit for hundreds of farmers, to run a plow, a corn mill, a bakery, a storage depot and a country store, and so on. Clearly at this point it has only a limited rate of success in delivering services, and even this mainly thanks to PDCC animators involved in it at various levels. Financially, however, the cooperative is not yet viable.

The agricultural extension services required for the cultivation and marketing of export crops, principally cocoa, will be in good hands with MEDA and CopCod [the formal commitment by MEDA has just been signed]. This agreement could actually serve as a model should PDCC decide to streamline its own activities in the future.

#### 6.2.4 Summary

To summarize the discussion, PDCC at this point lacks the skills, resources, and commitment needed to substitute its services for all those government departments and agencies not active in Chambellan. This project is far too small to be the sole actor in an "integrated approach" to rural development. PDCC has been overextended almost from the beginning of its operations. The warning contained in the AEDC-AID contract should be taken very seriously: before starting anything new, PDCC should rethink the feasibility of all those activities in which it is already involved. The project has at times let itself be maneuvered into the role of playing "state within the state". This should be avoided by dropping unproductive and non-essential activities and instead by concentrating on those which are most feasible and promise a sizable economic return for all participants.

Locally-defined needs will always be unlimited; they are thus not in themselves legitimate targets of project activity. At one point, project administrators - as a matter of fact, mainly visitors from Toronto - made a sensible decision to refuse to embark upon an activity judged necessary but beyond the scope of PDCC [the construction of a major river crossing]. Such a cautious approach is much more appropriate than taking up every "need" which can be identified. There is enough work for PDCC to handle in the present.

### 6.3 Community Councils as Change Agents

#### 6.3.1 Two views of community development

There is a basic ambiguity in the definition of community development as well as in the results expected from it. This ambiguity is rooted in the combination within a single concept of two entirely different and de facto contradictory views of what development is all about. These opposing viewpoints are the following:

##### First view

Community development is the stimulation of broad-based peasant participation in the production and distribution of economic, cultural, and political resources. Since the social and economic landscape of Haiti is almost as fragmented as the geographic one, and since the market economy permeates every aspect of life, the small production units - households - are pitted against one another and effectively dominated by urban buyers, exporters, and elites.

According to this view, the function of community development is to increase autonomous peasant bargaining power. Acting collectively, peasants will be liberated from many of the constraints currently stifling their efforts and condemning them to the level of abject poverty that shocks every outside observer.

### Second view

Community development is the creation of groups capable of receiving and distributing services to break the deadlock of poverty and low productivity. Since Haitian peasants are unacquainted with modern production technologies and are therefore incapable of applying them without competent help, only an organization channeling these technologies and their correlate training and extension services to the peasants will be capable of helping them.

This conception holds that the function of community development is to provide conduits to deliver services in a vertical [top-to-bottom] and centrifugal [capital city to remote region] fashion. If successful, this program will increase productivity and thereby raise peasant incomes.

Both types of community development share the same ultimate goal: to raise rural living standards. But while in the second view "community" is simply a means of achieving this end, the first view conceives of community as part of the end as well. The second conception, to use jargon which has become commonplace in Latin American research, attacks the economic marginality of the peasantry while the first attacks their social and economic marginality simultaneously.

Both types of community development are usually chosen on the basis of a rather fatalistic underlying assumption. The first view assumes that peasants will not be able to retain the material gains made through production increases unless their socio-political position [autonomy] is improved. For example, should they obtain a higher price for their harvest, there would be inflation, creditors, speculators, and indirect taxation waiting in line to strip the peasants of their income gains, unless the peasants have fortified their social position.

The assumption underlying the second type of community development is that a true reform of the social relations of production would never be

permitted by those whose interest is vested in the preservation of the status quo. True peasant mobilization within the existing system is thus a dream to be shelved alongside those of true land reform and development without inequality.

It is important to note that the "idealistic"/"pragmatic" labels sometimes attached to these two views of community development fail to grasp what is essential in them. Both are decidedly pragmatic once their underlying assumptions are taken into account. Both reckon with the great imbalance of power between peasant producers and the elites they are compelled to deal with. What distinguishes them is the focus of attention. The first view points to the local establishment as the peasants' principal adversary while the second conception points to national political constraints.

The dilemma of PDCC is that it wants to incorporate both views into a single development project. Its work with strategic groups, rural youth, women's groups, and young children stresses autonomy in thinking, deciding, and acting upon everyday issues. Yet its work with the CAC groupements adopts a diffusionist, top-to-bottom approach to development in which the groups serve as conduits for the distribution of services. The two approaches do not mix well since the very same individuals dominant in the latter groups prevent the growth of the former, at least retarding such growth so that it does not go beyond the point where they become socially relevant.

### 6.3.2 Comparative assessment of the CAC role

There is by now a considerable amount of evidence based on recent empirical studies that points to the fact that the CAC's are neither democratic in their functioning nor representative in recruitment nor egalitarian in the way they distribute resources. As a matter of fact, only one study [by Laguerre, 1975, for IICA] presents the CAC's as egalitarian

and democratic, but empirical evidence is not the strong suit of this study. The debate over these issues is aptly summarized by Delatour [1983].

This evaluation and its Project Impact Survey have several points to add to the debate. First, Delatour compares various efforts to count CAC membership as a percent of the local population. He comes out favoring the [most conservative] estimates by the Bureau d'Enquêtes et d'Analyse Socio-Économique [BEAS] made for the Ministère du Plan which put CAC membership at 3.7% of the total population in the Département de la Grand-Anse. The basis for this estimate is a comparison of CAC membership lists with census population estimates by IHSI. The figure arrived at in our own survey is enormously higher, namely, 54.8% of the adult population, or 25.8% of the total population in the PDCC target area [section two of this report]. What is the reason for this discrepancy? There are two answers to this question. First, I think our Chambellan data are more complete. I have had enormous difficulty obtaining up-to-date membership lists for CAC groupements in Chambellan and this despite my physical presence on-site. I can only imagine the difficulties of doing this out of Port-au-Prince and regional offices. The BEAS data are not worthless - actually, as national data go, they are unsurpassed - but they must be read with great caution. The problem of incomplete and non-existent membership lists is not present in our Chambellan data since our basis is a representative survey of all households. Secondly, I have previously pointed to the fact that PDCC has created and stimulated much of the CAC membership in the region. It follows that membership is high in the project area and low outside it. It is thus not legitimate to extrapolate our 25.8% figure for all of the Commune of Chambellan or the Grand-Anse department. At best it could be applied to those parts of the population currently covered by development projects resembling PDCC.

Another point which Chambellan can add to the debate over CAC's involves the distribution of benefits. I have shown previously [in section 4], that many of the PDCC benefits are spread over a reasonably large part of the population. This applies especially to infrastructural improvements which have helped pretty much everyone within reach - see tables 4-5, 4-8, and 4-9. One would have to add to those benefits covered by the survey, those discussed in section 3, for example, the classrooms added to the national school, the more than dozen social centers, the slaughterhouse and other facilities benefiting the population without much economic discrimination. In other words, PDCC's work with CAC groupements has resulted in an effective channeling of some services to large segments of the population.

Finally, the reader may wish to take note of a third piece of evidence our empirical work can add to the analysis of the role of the CAC movement. This involves the question of whether an egalitarian distribution of benefits is possible when they are channeled through CAC groups. In section 4 I have shown that production-related benefits are spread more unequally, favoring the better-off peasants, than the benefits related to infrastructure. Section five has given accounts of some of the deals struck by PDCC and local elites, and the list would be much longer had I tried to include the many instances I observed myself where CAC presidents and councillors received special treatment by PDCC. Our empirical evidence, therefore, adds more support to the arguments of those who contend that egalitarianism and democracy cannot be counted among the virtues of the CAC movement. A brief literature review will show that there is a virtual consensus of all empirically-based studies on this particular matter.

### 6.3.3 "Community Work" as regressive taxation

My observation of the evidence on community work at PDCC, the accounts of peasants as well as of PDCC staff have left me convinced that what officials have termed community work is actually unpaid labor performed by the weakest members of the resident community. What I mean by

"actually...performed" is that some of the CAC groupement presidents and other office holders and councillors may well show up on the day of community work but will never perform an equal share of the physical labor required in digging up sand, carrying rocks, etc. What I mean by "weakest" includes many women and those men who cannot afford to refuse when the leaders call for workers. The weakest are thus not necessarily only the landless and the poorest of the peasants. On the contrary, the very poorest individuals sometimes cannot afford to participate in the CAC movement altogether, as is evidenced by the fact that their mean economic status is lower on our scale [4.5 vs. 5.2 for members; see table 2-3].

Now let us put two and two together. If community work is aimed at building up the infrastructure neglected by the state, and if the labor is actually performed by the weakest and poorest members of those 79% of all households who hold CAC membership, then it follows that what is really government work is being paid for [quite disproportionately] by the labor of the poor. It is not the urban population [who enjoy higher incomes], nor the industrial sector [which pays little tax], nor the rural elites [who watch and give orders], but the rural poor who pay for infrastructure work. In other words, "community work" is a form of regressive taxation levied by CAC leaders with the support of projects such as PDCC which strengthen the CAC movement.

Regressive taxation is reprehensible to our sense of social justice just as much as it is to that of Haitian peasants. Modern democratic states have erected marvellous institutional constructs to enforce forms of progressive taxation. In rural Haiti, there is no modern state and no easy way out of what is essentially an exploitative arrangement. The only avenue open is that of passive resistance. This is an explanation of the ludicrously low productivity of all the "community work" that I have ever observed. Only where strict control and even coercion are applied, or where tangible benefits can reasonably be expected, will

peasants show any real effort in "community work". What "community work" reveals about social conditions in Haiti is hard to reconcile with notions of real community, and no observer should assume that illiterate peasants would easily confuse the two.

#### 6.3.4 Uses and abuse of "indigenous" organizations

It should be clear by now that despite its very broad base in the Chambellan population, the CAC groupements can only be considered indigenous organizations in a limited way. They are indigenous in that their membership and leadership consists of Haitians and local residents, and in that their hierarchical structure and functioning are what one can expect after reading about the history of Haiti over the last 180 years. They are, however, not indigenous in that they owe their existence to the introduction of foreign resources and personnel and in that their activities frequently represent the priorities of foreign agencies.

If one is ready to listen to what community councils define as local needs, then one should appreciate that both the articulation of a need and the proposed answer to that need are usually reflections of this foreign stimulation of CAC growth. Local leaders will request what they hope foreign agencies will provide. It is absurd to think that CAC's are or will ever become indigenous vehicles for significant social transformation.

CAC's represent government at the local level. They are not alone to do so since there are also the hierarchies of army, police, and militia as well as the magistrates, chefs de section rurale, juges de paix, and others. But hardly anyone doubts that the CAC is the government [for confirmation, see numerous reports done for the Ministère du Plan and for AID by both Haitian (Delatour) and foreign (Lundahl; Smucker and Smucker) researchers; good references are contained in Delatour, 1983].

CAC groupements should thus not be used if we are interested in demo-

cracy, egalitarianism, or even truly indigenous organizational forms. They cannot live up to unrealistic expectations. But they may very well have appropriate and legitimate uses.

The distribution of infrastructural services is a legitimate and necessary function of government and if the departments centered in Port-au-Prince are not capable of distributing these services, then perhaps CAC's can perform this function. Many services are best distributed within a hierarchy - take, for example, the work of SNEM or the Division d'Hygiene Familiale - and to use CAC's as vehicles for their distributive services appears to be an acceptable solution in the absence of other suitable organizations.

CAC's should not then be idealized and asked to perform functions which they cannot execute properly. They may have a legitimate role to play, given present organizational constraints in rural Haiti; but they should be complimented by other groups, such as the PDCC's strategic groups, in order to assure a more egalitarian distribution of benefits related to agricultural production. Furthermore, they should not be allowed to extract unpaid labor and impose what is de facto a system of regressive taxation. Finally, one should realize that CAC stimulation is contradictory to the goal of achieving greater peasant autonomy. Mixing the two approaches to development should thus be avoided.

#### 6.4 PDCC's Use of Resources

In this section I shall present my assessment of PDCC's use of resources, both material and human. First let me begin by stating that, overall, this is not a wasteful project in comparison to many other similar undertakings. The employees on the payroll actually do execute their tasks, the money has on the whole been spent wisely, and there are no examples of useless construction or other "white elephants", with the exception of the hydro-electric turbine which may yet be sold without too great a loss.

But there is still room for improvement in efficiency. The purpose of the following critical observations will be to point to areas where efficiency can be improved by bringing everyday activity more directly in line with project goals.

As far as human resources are concerned, it strikes me that the animators spend an inordinate amount of time walking. I have accompanied seven of these animators on what they considered routine daily work and in each case significantly more than 60% of the time was spent walking. This would not be a drawback if their target areas were arranged along some well-designed "beat" or route, with frequent stops at peasants' homes and gardens. But the topography does not make this easy. In fact, the 16 animators are assigned to many rather remote localities which necessitates a considerable amount of time just to gain access to the work areas. Besides this, some animators clearly do not work very long hours [while others, however, go beyond the call of duty without any overtime pay]. If a working week is to have 42 hours - for most employed Haitians it has more than that - then working only an average of six hours a day and spending 60% of that time walking in addition to six hours per week spent in project staff meetings, report writing, and the like, means that the average animator spends only two hours per day doing what he or she is supposed to do: animating peasant activity. This is hardly an efficient use of manpower and cannot be very effective in helping reach project objectives, be they understood as collective action or technological change goals.

Of the field staff members who are not animators, the coordinator appears to be used more than full-time. The administrator and the educator [for want of a better term] were absent and/or in training during most of my stay in Chambellan, hence I cannot comment on their daily routines. The "nouvelle organisation" which assigns each of these three professionals a distinct section of work will certainly keep them very busy. It may also solve one problem which had arisen occasionally in the past, namely, that some members of the field staff, including the coordinator, had to perform tasks for which they had not been trained and which dis-

tracted them from their more central tasks.

I cannot comment on the work roles of the 6 pre-school monitors since schools were closed while I was on site. However, I would expect them to share none of the problems of the animators in terms of effective work hours, although this problem may exist to a lesser degree.

The project's use of land resources has so far been more extensive than intensive. The Hainault farms was a bad investment, unsuited to increasing the level of agricultural productivity and thus incapable of helping demonstrate new technology to the peasants. The Noré farm is on good land - some of which is unfortunately lost to the residence and depot buildings - and could serve as a model if the project so desired. I have already commented on the fact that presently the PDCC staff do not want a model farm, preferring instead to concentrate their activity on peasant gardens. The land at Noré does not appear to be used to capacity even though much is learned and gained from what is going on there.

Little can be added concerning PDCC's use of monetary resources. The turbine and the experiment with fibro-cement were the only two costly errors, and together they probably did not amount to more than 4% of total expenditures. The previous evaluators have commented exhaustively on the expensive construction program. I believe that the necessary corrective measures have all been taken and that, on balance, the results [residences, depot, classrooms, social centers, slaughterhouse] are quite respectable; this matter should be laid to rest.

The only really significant problem in the use of monetary resources in my view is the imbalance between the Port-au-Prince and Chambellan operations. We have seen in table 5-4 that "specific project expenditures" have fallen drastically over the past three years and now amount to only one quarter of the total annual budget. As indicated in section five, this may well have resulted in a short-term increase in the overall cost effectiveness of the project since the budget restrictions affected

mainly the unproductive construction program. But it leaves AEDC in the uncomfortable position of spending three-quarters of the PDCC budget - not even including the director's salary - elsewhere before ever starting to finance the development effort in Chambellan. The Port-au-Prince office is by no means luxurious, but it is more than PDCC needs and can afford, in terms of both staff and equipment.

### 6.5 Conclusion

If one were to summarize in one sentence the strengths of PDCC, one would want to point to three elements. [1] The project has managed to assemble and train a staff which is generally good and includes at least a half dozen individuals who are truly impressive; [2] it has succeeded in fulfilling and even surpassing many of the obligations contracted under the OPG agreement of 1981; and [3] it has managed to stimulate the CAC movement and, to a lesser extent, other forms of peasant organization, and, by doing so, to deliver some essential services to a population which had previously been deprived of basic necessities such as potable water.

The project has generally been more successful with the gradual introduction of improved and new techniques in agriculture and animal husbandry than in the case of the bold experiments in "appropriate" technology. It does not yet have the human resources needed for the controlled experiments, nor the sustained research efforts and analyses required for the successful introduction of truly innovative techniques and technologies. Its strength so far lies in the stepwise upgrading of traditional Haitian agriculture. Two exceptions, however, are notable: fishponds and vegetable gardens had been unknown in Chambellan and have now become an integral part of the economic activities of many peasant families.

The project has raised local expectations and has not always been able to fulfill what was understood to have been promised. There are no paved streets and no lights to shine on them [as the first director had

envisioned]; the nutrition and literacy programs are no longer what they used to be; home and latrine construction is no longer subsidized while the fibrocement roofs turned out to be leaky and impractical. Even the work on the road, the sale of gabions, and the market in locally-produced cement and adobe blocks has turned out to be disappointing.

It is significant to observe that even at this advanced stage in the history of the project, town leaders in Chambellan still entertain unrealistic expectations for PDCC. At my meeting with them, some asked for a vocational instruction center, some for a secondary school, some for a domestic arts center. This emphasis on education certainly should be taken seriously, but I think PDCC already does all it can do in this field. It should certainly not be contracting any more infrastructure obligations.

Talks with CAC groupement leaders and peasants very frequently resulted in demands for "aide" and "encouragement" which translates into money and jobs. Certainly this is understandable, but it must be seen as a basic problem of a project if, after all these years, it is still viewed as a foreign provider of jobs and resources rather than as a stimulator of autonomous development. It will be hard for PDCC to shed this image.

Finally, the incoherence of the project's development ideology and the simultaneous stimulation of essentially contradictory forms of peasant mobilization should also be noted. For years now, the project has tried to blend the two approaches presented in subsection 6.3.1, and it has done so at a considerable cost. While most members of the field staff show goodwill and have some notions of how agricultural production can most suitably be increased, there is clearly no common vision of development and no dominant vision of the issues of the day and the tasks of the future. The "esprit de corps" sought by a previous evaluator is thus rather weak. This team of teachers and speculators and peasants and militiamen and unemployed and housewives has yet to be homogenized and galvanized into a unified and loyal "corps". Until this happens,

the project may well contribute somewhat to economic development, but it will not foster the development of a community of autonomous peasant groups ready to defend their interests.

## 7. RECOMMENDATIONS

### 7.1 General Conclusions

Most observers would agree that PDCC is a valid project which has lived up to many of the expectations of the project paper and should be allowed to continue operations for another three years at least. However, there is also agreement between the previous evaluators, myself, many of the PDCC staff members, and some AID personnel, that the project requires some significant mid-course corrections. But let us be realistic: PDCC is not and will never come to operate in the manner of the Papaye or Bayonnais projects, i.e. it will not dissociate itself completely from the local power structure and the CAC's. The delivery of some services and some upgrading of productivity in agriculture are probably all the project can hope to accomplish. These are wholly legitimate goals that are worth the effort, and they are all one should expect from this project.

The "overall project goal" still stands: "...to set in motion a self-sustaining process whereby the poor peasant population of the target area can both improve and exercise more control over the social and economic aspects of their lives." [PP: 3]. The accent has so far been on the "improve" in this statement; as far as I can see there has been no significant change in the "control" poor peasants exercise over their lives. It is now time for the project to emphasize this latter aspect of its mission and to strengthen the position of the poorer strata of the target population.

The project will not abandon the CAC groupements, but it would do well to concentrate its efforts on other groups, principally the groupements stratégiques. This will not solve the basic dilemma of incorporating two different approaches to development in a single project, but I think that this dilemma will never be solved within the PDCC framework. A shift in priorities will do a lot of good for those who need help most without harming the others. Besides, a return to the strategic groups

which the project paper had repeatedly presented as "the principal focus" of human resource activity will help restore the philosophical coherence this project now lacks.

## 7.2 Standards of Development Work and PDCC Performance

Has PDCC lived up to our standards governing development work? Has the project [1] satisfied basic needs, [2] increased productivity, [3] stimulated peasant autonomy, and [4] spread its benefits in an egalitarian way? The previous sections of this report have revealed a mixed and uneven performance and it is time for corrections to be made to enable the project to better fulfill these standards while also improving its own coherence and cost-effectiveness.

### Recommendation 1

PDCC should direct at least 50% of its human and material resources to the mountains, away from its traditional target areas in the town of Chambellan and in the valleys.

The project has gone quite some way to satisfy basic infrastructural and educational needs of those population sectors which are - relatively - privileged. Yet the mountains are where the need is greatest, the population poorest, and the scarcity of services most glaring. The survey has shown that the remote areas are those ranking lowest in both standards of living and the reception of project benefits.

### Recommendation 2

PDCC should stimulate, animate, and strengthen small peasant groups with concrete material aims - e.g. the strategic groups - and reduce its reliance on the CAC movement as much as possible.

This recommendation is a necessary correlate to the previous one. If the work done so far in the valleys is not to simply disappear once PDCC is terminated, then some groups must take charge of the ongoing needs and activities there. Every fountain already has its committee responsible for upkeep. In the same sense, many other maintenance and agricultural extension services should now be delegated to local residents. Should the activities of PDCC be found convincing by peasants, then they

will prove contagious: if PDCC cannot propagate itself after another one or two years of operation, then it should probably be terminated.

Our empirical work has shown that the strategic groups have lived up very well to the second and third of our standards. But their number is too small and, compared to the large groups, they have not received sufficient attention. This activity deserves to be fortified.

### Recommendation 3

The project should organize agricultural extension services in an integrated way, meeting needs related to production, storage, and marketing of products of the Chambellan area.

This recommendation may sound overly broad and ambitious. Yet the introduction of new technologies and products had created needs which cannot currently be met locally, including the need for provision of seeds and pesticides, storage containers and silos, and the like. The extension activities of the project all depend at present on a single person and their provision has changed with interests and activities of this individual. It is time that such work be carried out in a more systematic fashion.

I would not recommend to do this on a cooperative or volunteer basis. Rather it seems to me that a good small store for agricultural inputs may be a viable means of achieving this end, and this store could be operated on a profit basis by a single family. For example, the store could sell pesticides and rent pumps, removing such obligations from PDCC. The project could therefore concentrate on the educational and animation aspects of its work.

### Recommendation 4

All work on rural infrastructure should be paid for. PDCC should no longer expect unpaid "community participation" in the implementation of its objectives.

The reason for this recommendation is that what is termed community work in Chambellan has actually turned out to be a form of regressive

taxation. What I do not want to imply is that PDCC should now become a major employer. Quite the contrary, it would be most unfortunate if the project were to slide into the role of employers and supervisor of dozens of day laborers. It has been recommended that infrastructure and construction work be made very minor aspects of PDCC activities. Where such work is required, however, it should be paid for either out of the operational grant or some extra source, most likely in the form of food-for-work.

Here again, it would be best for the project to find an intermediary contractor or a local business to act as the direct employer, contractor, or whatever service is required. Even some of the project's ex-employees might be able to organize infrastructural work. The project staff has probably in the past done too much of it already, and it would be unfortunate if such work were again to drain much of the staff's time and energy.

It goes without saying that if and when infrastructure work is done, it should, following recommendation 1, benefit the population in the mountains more than in the town and valleys. It may also, following the second recommendation, involve some of the new strategic groups at critical stages of planning and execution.

### 7.3 Organization and Administration

I have already commented extensively on several of the points to be raised here. Staff training levels are uneven and some sections of the field staff should probably be rebuilt. The top-heavy Port-au-Prince administration makes little sense at present while some of the roles of the field staff require more precise definition now in order to correspond exactly to the "nouvelle organisation". Also, the now almost non-existent research activities need strengthening.

It should also be repeated here that I think that the entire administrative design has been greatly improved by [a] the non-renewal of the

DARNDR contract, and [b] the implementation of a simpler network of authority and accountability. Each of the ~~the~~ sections - agriculture, education, and infrastructure - will grow independently under the "nouvelle organisation", in prestige and productivity if not in personnel.

Of the following three recommendations, I would consider the second one to be of critical importance in the short and medium run.

#### Recommendation 5

Staff selection should be reviewed and training levels continuously upgraded.

The staff selection review concerns only the 12 animators, 4 agents de promotion feminine, 6 pre-school monitors, and - if they are taken on again - 8 literacy agents. It should include an objective test of competency, a candid appraisal of personal suitability, and a reassignment and/or replacement of those found to be inappropriate in their present capacities.

#### Recommendation 6

Executive power should be located on site at PDCC rather than in Port-au-Prince, either by transferring the AEDC director to Chambellan or by appointing an executive taken from current project staff or from outside

PDCC has operated for too long with a system of absentee directorship. Under the terms of the DARNDR contract, there was, of course, a co-director on site, but like in almost all counterpart arrangements I have seen in Haitian development projects, he was in fact less than equal to the expatriate director and had little independent executive power. Where he did exercise such power - e.g. in paying salaries for construction of drywalls - he was in fact severely criticized and called to order.

During my fieldwork I have come accross numerous instances of inefficiency

which can be directly or indirectly attributed to the fact that nobody on site was both powerful and accountable in the way only a director can be. To mention just a few observations:

- better communications with town leaders would have reduced misunderstandings and unrealistic expectations.
- if the coordinator was not constantly put into a position of being held responsible for decisions he does not have the power to alter, staff relations could have been much more harmonious.
- no on-site executive would tolerate the breakdown of radio communications with the head office. During 33 days in Haiti the radio worked once only.
- none of the field staff, including the "comité directeur", was aware of the existence and constraints of the project paper. They knew nothing of many of the project's goals.

One could of course counter these examples by saying that a director could settle these things during periodic visits. But the point is that they are not very likely to become problematic were the director physically available to settle disputes and sort out difficulties on an ongoing basis. What a director can see, do, and settle during visits is very different from the sort of contribution he could make were he generally on-site.

When compared with the question of residence on site, one previous director pointed to the fact that he had visited the project 60 times in two years. This is precisely the problem: an executive who wastes 120 out of the maybe 550 working days on unproductive travel and spends no more than 180 of the remaining days on-site just cannot lead the project the way it could and should be led from a Chambellan base.

#### Recommendation 7

Research capabilities should be built up and research should become an integral part of project activities.

Agricultural experimentation is both complex and necessary. There is no systematic knowledge at present about how particular new varieties

will fare under local conditions of soil, climate, land tenure, etc. Since much of the agricultural work of PDCC involves experimentation, good records should be maintained and results analyzed on an on-going basis. Unless research activity is systematically integrated only hazardous results and mediocre productivity increases can be expected.

Small sample surveys, production and productivity charts, and comparison with results of other projects are among the studies required most urgently. Unfortunately, PDCC does not at present have the staff necessary to carry out such studies. [However, the present director may decide to become the project's principal researcher - another benefit were she allowed to take up residence in Chambellan.]

One of the most beneficial aspects of research only becomes visible if it is incorporated into animation and animator training. Results can be presented at meetings or in [Creole] newsletters. It is exciting for on-site practitioners to calculate exactly the costs and benefits of introducing new planning techniques or crops. Peasants rarely have the luxury to observe control groups, but a project can do that and can thus give sound and empirically-founded advice. All this is already done at other projects and there is no reason why PDCC could not perform very well in this respect. All it takes is one trained person to take charge of it, on a part-time or intermittent basis.

#### 7.4 Back to Basics

PDCC is a project of AEDC - the "Alliance pour l'enfant et le développement communautaire". The name implies a focus and a program. It is time to turn back to those activities of direct benefit to children and to strengthen communities. Nutrition, health, and educational programs will benefit children most directly and these should be stressed. The focus of aid on children is, after all, one of the characteristics of the Save the Children organization. While other projects aim at adults and hope that children will benefit from a trickle-down effect spawned

by rising adult living standards, PDCC's vocation is really the reverse: when aid is centered on children's needs, adults may also derive benefit.

It has already been pointed out sufficiently that community should not be confused with the Conseil d'Action Communautaire. "Back to basics" means that PDCC might well be required to make some tough choices among development options, organizational forms, and local loyalties. I believe that real community will have to be preferred over a large and hierarchical political organization. Further, I think that such a choice, if made and announced diplomatically, will not strain the relations between PDCC and the local population.

#### Recommendation 8

PDCC should strengthen its educational activities aimed at children. This means that community schools and pre-school programs are worth fortifying and adult literacy should be left for some other organization to handle.

It will of course be critical that community schools be oriented towards the life of a rural community. PDCC should not put up just a few more ordinary primary schools with their curriculum ignoring rural life and extolling what is French, urban, and ancient history. On the contrary, the project can do much better. Teaching materials that are truly appropriate for rural community schools can probably be found elsewhere in Haiti and teacher training can be arranged with other projects and centers. The same goes for pre-school education. The project should undertake not just to provide ordinary daycare centers but rather make full use of the opportunities offered for advancing the physical and intellectual development of young children.

#### Recommendation 9

PDCC should integrate children as fully as possible into the teaching and practice of agriculture.

This flows from the previous recommendation and it must be said that the project is already underway in the direction indicated. But there is

still a long way to travel until each children's group has a good-sized garden and eats its harvest. In particular, it strikes me as odd that the Jeunesse Rurale clubs which stress leisure activities, sex education, and the like, are not yet making a full contribution to this end. Children of almost all ages play an important part in the rural economy and they are eager to be initiated into animal husbandry, planting of vegetables, and many other aspects of rural life. Why should a child-centered development let this opportunity pass by?

#### Recommendation 10

The project should consistently aim its benefits towards the poorest of the rural social strata. If they represent one-third of the population, then they deserve two-thirds of PDCC's efforts and benefits.

This recommendation appears at first to contradict the fourth of our standards - i.e. that benefits should be spread in an egalitarian way. This is, of course, not really the case. Only a consistent bias towards the poor will help them receive their equal share. The middle and higher strata do not have to worry us; they will still obtain their share, if only because a couple of dozen of them are on the PDCC payroll.

There are many other reasons why the poor should be favored. They are most often excluded from government services; they are usually in greater danger as evidenced by class-specific mortality and morbidity rates; and their children require the most assistance.

Yet another reason for deliberately introducing bias is that, as it stands, most of PDCC's resources never leave Port-au-Prince. The project is, therefore, directly contributing to the rural/urban imbalance in Haiti. The operational expenditures create jobs in the city and attract migrants from the countryside. It is thus a legitimate concern for a rural development project to channel as large a share as possible of its budget to the rural poor.

Conservatives may find recommendation 10 counter-productive. Would it

not make more sense to help increase the production and productivity of those farmers who have already proven their ability to succeed - in other words, the higher strata? The answer is negative because: [1] they usually do not need help, [2] they have not shown a great capacity to improve productivity, even when they had the necessary resources, and [3] they work the best land and usually own it; the threat of land erosion is thus much smaller than in the case of the poor farmers.

This is not to say that there is no place for "high-tech", modern agriculture in Haiti. All I am saying is that its promotion is not the function of the "Alliance pour l'enfant et le développement communautaire".

#### 7.5 New Initiatives

Even if it may sound unreasonable to recommend that an overextended project take on new initiatives, this is precisely what is indicated in the case of PDCC. The project is presently in a process of contraction. Much of the construction and infrastructure program which at times dominated the past three years is now terminated. The matter of the road to Boucan and/or Carrefour Didier can and should be settled this summer. Nutrition and literacy centers should remain closed and we can say that the Noré and Hainault farms should not absorb much of the project's energy. The psychological and financial costs of experimenting with "appropriate" technology will no doubt be avoided in the future. In other words, the project is now greatly scaled down, compared to only a year ago. Thus, it is certainly capable of undertaking some cautious new initiatives as long as they do not involve radical technological innovation or greatly increased expenditures.

#### Recommendation 11

PDCC should build up systematically and rapidly its capacity to combat land erosion both along the conventional lines of judicious crop selection, planting techniques, contour terracing, and drywall construction, and should also apply and compliment in innovative ways the agroforestry model.

The ecological disaster which has already destroyed large parts of the Haitian landscape is now starting to appear in Chambellan. Big white and gray scars on some hills indicate the loss of topsoil. Major charcoal merchants are said to have moved into the Grand-Anse department now that traditional charcoal areas have been ruined forever. There is no sense of alarm, of impending disaster, at PDCC or in Chambellan. Yet the danger for the region is very great because it is one of the last regions with significant wood resources and because much of the land is state-owned. This is the land which is always the first to be sacrificed to destructive cultivation and harvesting practices. A look at aerial photographs taken in Haiti in the mid-fifties, sixties, and seventies proves beyond any doubt what is in store for Chambellan - unless rapid, innovative, and effective action is taken.

PDCC has the chance of its life. It will be judged ten years from now not by whether some people learned to read and write nor by the numbers of rabbits bred locally nor by whether the Jeunesse Rurale received good sex education from a Canadian teacher. If a decade from now Chambellan looks like the North-West or La Gonave or Anse Rouge, the question will be: who was there when such destruction still might have been prevented. The answer is that PDCC was there. If PDCC cannot spread three-quarters of its money in Chambellan instead Port-au-Prince, if PDCC with all its resources, contacts, logistical capacity and experience in the region cannot make a significant contribution to help avoid the potential disaster, if PDCC cannot muster the enthusiasm for the preservation of the region's most precious resource, then the project will be judged harshly.

The challenge is great and PDCC, given its present resources, cannot take it up in more than a minimal way. But the project has the possibility to start on many aspects of this complex mission. Erosion control should become the dominant motive underlying all of PDCC's agricultural pursuits.

The recommendation speaks of "complimenting the agroforestry model". Agroforestry in Haiti is at this time linked with the activities of PADF

which so far have been more successful than any other tree-planting project in the recent history of Haiti. This activity, however, is limited to privately-owned land. What is needed is a first-rate analysis of the options open on rented and state-owned land, and a design for action which can be taken on these lands. PDCC does not have the resources to produce these, but AID does and PDCC should be among the first in line to join a project complimenting PADF if and when it becomes operational.

#### Recommendation 12

Productivity increases in agriculture should remain a high priority of PDCC and take precedence, from now on, over infrastructural and educational work.

The coordinator has laid an impressive basis in Chambellan in terms of improving production techniques of participating farmers. Nevertheless, this is no more than a beginning. Furthermore, the project should take the necessary steps in personnel selection and training in order to assure that PDCC's agriculture selection could survive without the services of Gaspar Brice. As of now, it could not.

The expansion of intensive cultivation techniques - such as in the vegetable gardens - will have to receive much more attention. As of today, traditional agriculture in Chambellan is by no means "primitive", but it is not highly productive because for farmers the avoidance of risk is much more important than the maximization of profit. This situation can be improved. If an adequate organization assures the availability of agricultural inputs when they are needed, and if collective action in strategic groups protects the farmer from the abuses of creditors and landlords, a more intensive cultivation of the available land is possible. It is not their "traditionalism" which prevents peasants from producing more, but rather the elaborate provisions necessary for guaranteeing at least some return under present conditions. A combination of provision of services, cautious modernization, and organization of collective action at the lowest level is all that is required. PDCC can

do very well in precisely these tasks. If it does so, and if it combines them with the preservation of soil then it will have lived up to the trust and resources invested in it, as well as fulfilling our highest expectations.

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## ANNEX 1 - REPORT ON THE 1984 EVALUATION -

The following are the dates and activities of the 1984 evaluation of PDCC:

- April 12 - Preparation in Montreal, assembling of documentation.
- April 13 - Trip to Westport, Conn., meeting with the directors and other representative of the Save the Children Federation and CANSAVE, its Canadian partner, and Mr. Michael Baldwin who had been the AID backstop of PDCC in Port-au-Prince since the beginning of AID co-financing in 1981.
- April 15 - Travel to Haiti.
- April 16 - Meetings in Port-au-Prince with AEDC and AID personnel.  
17 & 18
- April 19 - Field work in Chambellan, including observation of PDCC  
to activities and achievements, interviews with residents of  
May 11 Chambellan and surrounding areas, most of the PDCC personnel and staff of some other projects active in the area, as well as survey work on two samples - 39 children who had participated in the 1981/82 nutrition program and 502 adults constituting a representative 1/3 random sample of the target area population.
- May 12 - Data analysis and report preparation in Port-au-Prince.  
to 24
- May 25 - Travel to Montreal.
- May 26 - Computer analysis of the Project Impact Survey data.  
to Integration of major findings into the report.  
June 17

Preliminary and partial presentations of results of the analysis were made orally to the following audiences:

- the PDCC field staff and director
- town notables of Chambellan
- the director and staff of USAID/Port-au-Prince
- the Ambassador of Canada
- the Ambassador of the United States

This work required a total of 46 working days of one evaluation specialist and an average of seven days' work of 19 interviewers.

## ANNEX 2 -- CURRENT PDCC FIELD STAFF

Comite de direction

1. Gaspar BRICE
2. Deschenault CLERMONT
3. Renel LARAQUE

Encadreurs

1. Bernadeau ALEXIS
2. Enold BLANC
3. Maxan CHARLES
4. Rose-Marie CHERILUS
5. Florence DOLCE
6. Francisque FONTAINE
7. Fernande FREMONT
8. Irene FLORESTAL
9. Anthcny JOSEPH
10. Romany JULES
11. Gerard JULIEN
12. Guerin JULIEN
13. Daniel MICHEL
14. Fenelon PIERRE
15. Gerardin SAINT-LOUIS
16. Yves TOUSSAINT

Moniteurs Stimulation Precoce

1. Marie-Ange MICHEL
2. Micheline FLORESTAL
3. Yves BAZELAIS
4. Cyprien VERDIEU
5. Elourde FLORESTAL
6. Olis SANON

Gens de Maison

1. Manite JOSEPH
2. Saintanise MAXIMUS

Chauffeur

1. Denis DAPHNIS

Entretien de terrain

1. Odivy LOUIS

Gardien de Bureau

1. Marc SAINT-LOUIS

ANNEX 3

Questionnaire used in the  
Project Impact Survey

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TRAVAY POU PDCC

ID 1   
 carte 4   
 5

- 1 Ki non lokalite kay-la ye-a? .....
- 2 Ki bon non met kay-la? .....
- 3 Ki vye non met kay-la? .....
- 4 Non moun ki ranpli fich-la: .....
- 5 Nimerò kay-la: .....
- 6 Banm' non chak moun ki rete nan kay-la:

7

non	gason ou fi	ki la	eske li konn li ak etri	eske lal lekòl ane sa	eske li levanijil
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non

9	<input type="text"/>	12	<input type="text"/>
15	<input type="text"/>	18	<input type="text"/>
21	<input type="text"/>	24	<input type="text"/>
27	<input type="text"/>	30	<input type="text"/>
33	<input type="text"/>	36	<input type="text"/>
39	<input type="text"/>	42	<input type="text"/>
45	<input type="text"/>	48	<input type="text"/>
51	<input type="text"/>	54	<input type="text"/>
57	<input type="text"/>	60	<input type="text"/>
63	<input type="text"/>	66	<input type="text"/>

ID 1   
 carte 4

	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 gas	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non
	1 gas		1 wi	1 wi	1 wi
	2 fi		2 non	2 non	2 non

5	<input type="text"/>	8	<input type="text"/>
11	<input type="text"/>	14	<input type="text"/>
17	<input type="text"/>	20	<input type="text"/>
23	<input type="text"/>	26	<input type="text"/>
29	<input type="text"/>	32	<input type="text"/>

7 Konbyen timoun ki fèt nan kay-la nan ane 83-a?  
 Bann' ni sa ki la ni sa ki mouri. total: .....

5

Premye ki fèt en 83 Ki mwa li fèt? .....  
 Non manman li: ..... Eske timoun sa vivan? 1 wi  
 2 non

6

8

Dezyèm ki fèt en 83 Ki mwa li fèt? .....  
 Non manman li: ..... Eske timoun sa vivan? 1 wi  
 2 non

9

11

Twazyèm ki fèt en 83 ki mwa li fèt? .....  
 Non manman li: ..... Eske timoun sa vivan? 1 wi  
 2 non

12

14

8 Apa timoun ki te fèt yo, eske te gen movès kouch tou?  
 Konbyen movès kouch? .....

15

9 Konbyen moun nan kay-la ki nan groupman kominotè? .....moun

16

10 Ki dènye mwa yo tal nan reyinyon? mwa:..... ane:.....

17

19

11 Ki dènye mwa yo tal travay ansanm? mwa:..... ane:.....

21

23

12 Konbyen moun nan kay-la ki nan group ekstratejik? .....moun

25

13 Ki dènye mwa yo tal nan reyinyon? mwa:..... ane:.....

26

28

14 Ki dènye mwa yo tal travay ansanm? mwa:..... ane:.....

30

32

15 Konbyen moun nan kay-la ki nan KOSEN? .....moun

34

16 Ki dènye mwa yo tal nan reyinyon KOSEN? mwa:..... ane:.....

35

37

17 Konbyen moun nan kay-la ki nan KOPKOD? (kooperativ kakara).....moun

39

18 Ki dènye mwa yo tal nan reyinyon KOPKOD? mwa:..... ane:.....

40

42

19 Anketè: Kouman kay-la ye? Ak kisa pano kay-yo fèt?  
 (sak gen plis) 1 blòk 4 klise  
 2 miraye (roch ak môte) 5 lòt bagay  
 3 masonen

5

20 Ak kisa kay-la kouvri? 1 beton 3 pay  
 2 tôle 4 lòt bagay

6

21 Ak kisa a-tè kay-la fèt? 1 siman (beton) 4 tè  
 2 roch ak siman 5 lòt bagay  
 3 roch ak tè

7

22	Eske kay-la gen galeri?	1 wi	2 non	8	<input type="checkbox"/>
23	Apa galeri, konbyen lòt pyès?	.....lòt pyès		9	<input type="checkbox"/>
24	Kounye-a m'bezwen mande ou kèk kesyon sou bagay ki gen la kay-la. Par eksanp, genyen	- panntyè	1 wi 2 non	10	<input type="checkbox"/>
		- gad manje	1 wi 2 non	11	<input type="checkbox"/>
		- kabann	1 wi 2 non	12	<input type="checkbox"/>
		e chez boure	1 wi 2 non	13	<input type="checkbox"/>
		- radyo	1 wi 2 non	14	<input type="checkbox"/>
		- lanp a vè	1 wi 2 non	15	<input type="checkbox"/>
		- amwa	1 wi 2 non	16	<input type="checkbox"/>
		- kanari	1 wi 2 non	17	<input type="checkbox"/>
25	Eske kay sa-a gen latrin?	1 wi	2 non	18	<input type="checkbox"/>
26	Kounye-a mwen ta renmen pale de bèt ke moun nan kay-la genyen (bèt lòt moun ba nou gade pa la danl', bèt ou bay gade la danl').				
	Konbyen poul peyi	.....		19	<input type="checkbox"/>
	Konbyen poul chin	.....		21	<input type="checkbox"/>
	Konbyen bata chin	.....		23	<input type="checkbox"/>
	Konbyen kòk gagè	.....		25	<input type="checkbox"/>
	Konbyen kabrit	.....		27	<input type="checkbox"/>
	Konbyen bèf	.....		29	<input type="checkbox"/>
	Konbyen bourik	.....		31	<input type="checkbox"/>
	Konbyen cheval	.....		33	<input type="checkbox"/>
	Konbyen millet	.....		35	<input type="checkbox"/>
	Konbyen pentad	.....		37	<input type="checkbox"/>
	Konbyen kana	.....		39	<input type="checkbox"/>
	Konbyen kòdenn	.....		41	<input type="checkbox"/>

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27 Ki kote nou pran dlo pou nou bwè pi souvan? 1 tiyo  
2 sous  
3 rivyè  
4 lòt kote 43:

28 Eske ou kon fè jaden legim deja ?  
1 wi Konbyen rekòl ou fè deja? .....rekòl  
2 non 44:

29 Eske ou gen trou konpòs oubyen trou fatra? 1 wi  
2 non 45:

30 Eske ou konn gen lapen deja?  
1 wi → Konbyen lapen k'ap viv an tou kounye-a? .....  
2 non  
Konbyen lapen ou manje deja? ..... 46:   
Konbyen lapen ou vann an tout? ..... 48:   
Konbyen lapen ou bay lòt moun an tou? ..... 50:   
An tou, konbyen ti lapen ki fèt isit? ..... 52:   
Nan tout ti lapen ki te fèt isit, konbyen ki mouri lò yo piti? ..... 54:   
56:

31 Eske nou gen basen pwason?  
1 wi → Eske nou manje la dan deja? 1 wi 2 non  
2 non 58:

Eske ou vann la dan deja? 1 wi 2 non 59:

32 Eske maladi poul te pase la kay ou an 83? 1 wi 2 non 60:

33 Eske ou konn vaksinen poul ou yo?  
Konbyen poul ou vaksinen ane 83? ....poul 61:

Konbyen poul maladi touye pou ou ane pase a? ....poul 63:

Konbyen poul ki te chape maladi ane pase a? ....poul 65:

34 Eske gen ti moun la kay ou ki nan jenès riral? 1 wi  
2 non 67:

35 Ou konnen gen lekòl pou timoun 3 zan, 4 an, 5 an kòm sa nan sant sosyal.  
Eske gen ti moun la kay ou ki la dan deja? .....ti moun 68:

36 Kounye-a n'ap pale de ti moun ki gen plis ke 5 an.  
Konbyen ti moun la kay ou ki al nan lekòl groupman kominotè ane sa-a? .....ti moun 69:

Anketè: Fè kontrol. Eske ou fini chak paj? Fè nòt anba isit.

.....  
.....  
.....

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## ANNEX 4

### Data from the Project Impact Survey

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#### Note to readers and users:

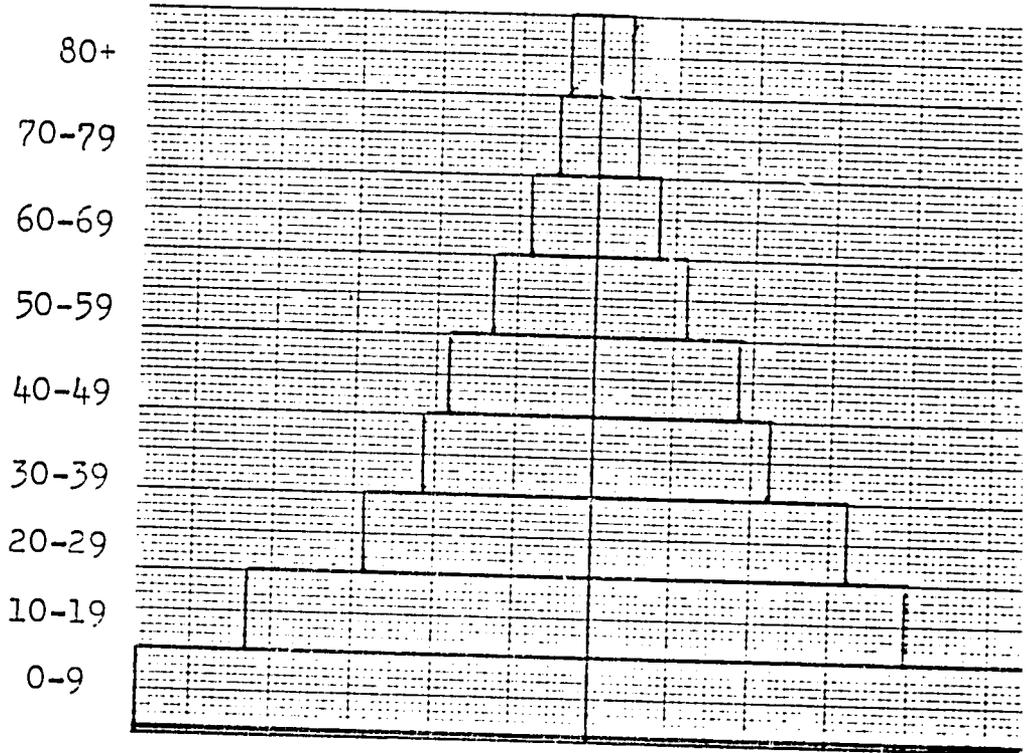
1. This annex should be read and used in conjunction with the text of the evaluation report (ch. 4.1) and the questionnaire provided as annex 3.
2. What is presented here is a selection of the data judged to be most useful. The principal omission concerns household data which in its original format is bulky and not very useful. The sex/age pyramid and the last variables of the file summarize the household data in a more acceptable and useful form.
3. The general order of the variables is that of the questionnaire. Recoded and computed variables follow those directly taken from the questionnaire.
4. All data has been weighted to represent distributions for the target population, i.e. the total population of the town of Chambellan and 24 localités surrounding it. The number of cases is thus not that of the original 502 valid questionnaires but of the 1430 houses which they represent. The weights used are 3.0 for the 24 localités and 2.0 for the town.
5. Some of the variables are used to record information and observation as accurately as possible while others contain information which is less reliable but nevertheless useful for ranking the households. The former type includes such data as sex distribution and house construction type, the latter information on the value of animals owned.
6. Anyone interested can obtain complete information on the programming of the file, as well as a set of the data (at cost), from Uli Locher, Dept. of Sociology, McGill University, 855 Sherbrooke St. West, Montreal, QC, Canada, upon permission by AID/Haiti (contact Dr. John Lewis).

Men

Women

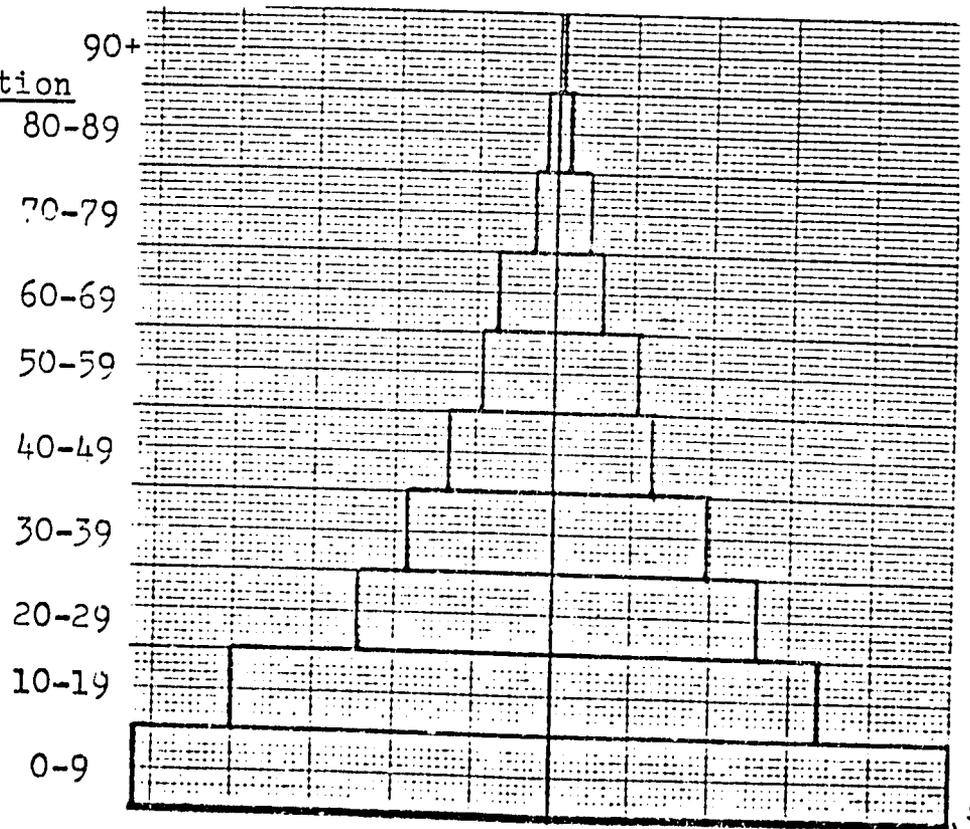
Haiti 1982 (Census)

Sex/Age Pyramid of the Rural Population



PDCC 1984 Target Population

Sex/Age Pyramid



LOCALITE NAME OF LOCALITE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
BASIN DAVID	1	36	2.5	2.5	2.5
BELLE MAISON	2	36	2.5	2.5	5.0
BOUCAN MILIEN	3	54	3.8	3.8	8.8
CADETTE	4	57	4.0	4.0	12.8
CHAMBELLAN	5	152	10.6	10.7	23.5
COMMENCE	6	36	2.5	2.5	26.0
CONGO	7	33	2.3	2.3	28.3
DANIEL	8	54	3.8	3.8	32.1
DEJEAN	9	87	6.1	6.1	38.2
DJANACOURT	10	18	1.3	1.3	39.5
FOND DES BOIS	11	42	2.9	2.9	42.4
GLACIS	12	36	2.5	2.5	44.9
GRAND FOND	13	81	5.7	5.7	50.6
GRANGER	14	18	1.3	1.3	51.9
HAINAULT	15	105	7.3	7.4	59.2
JULIE	16	54	3.8	3.8	63.0
KOUNOUK	17	81	5.7	5.7	68.7
LAVALET	18	42	2.9	2.9	71.6
MAHOTIERE	19	126	8.8	8.8	80.4
MARIE GOVIN	20	18	1.3	1.3	81.7
MASSICA	21	30	2.1	2.1	83.8
MATHIEU	22	66	4.6	4.6	88.4
NORE	23	42	2.9	2.9	91.4
SHADA	24	75	5.2	5.3	96.6
TERRE ROUGE	25	48	3.4	3.4	100.0
.	.	3	.2	MISSING	
TOTAL		1430	100.0	100.0	
VALID CASES	1427				
MISSING CASES		3			

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INTERV NAME OF INTERVIEWER

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	1	77	5.4	5.4	5.4
	2	71	5.0	5.0	10.4
	3	74	5.2	5.2	15.6
	4	92	6.4	6.4	22.0
	5	83	5.8	5.8	27.8
	6	82	5.7	5.7	33.6
	7	87	6.1	6.1	39.7
	8	77	5.4	5.4	45.1
	9	81	5.7	5.7	50.7
	10	83	5.8	5.8	56.6
	11	90	6.3	6.3	62.9
	12	87	6.1	6.1	69.0
	13	84	5.9	5.9	74.8
	14	84	5.9	5.9	80.7
	15	96	6.7	6.7	87.5
	16	107	7.5	7.5	95.0
	17	72	5.0	5.0	100.0
	.	3	.2	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1427				
	MISSING CASES	3			

BIRTHS TOTAL NUMBER OF BIRTHS IN 1983

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	916	64.1	64.6	64.6
	1	465	32.5	32.8	97.4
	2	37	2.6	2.6	100.0
	.	12	.8	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1418				
	MISSING CASES	12			

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BIRMO1 MONTH OF FIRST BIRTH

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	145	10.1	23.1	23.1
	1	59	4.1	9.4	32.4
	2	36	2.5	5.7	38.2
	3	44	3.1	7.0	45.2
	4	50	3.5	7.9	53.1
	5	26	1.8	4.1	57.2
	6	18	1.3	2.9	60.1
	7	38	2.7	6.0	66.1
	8	38	2.7	6.0	72.2
	9	43	3.0	6.8	79.0
	10	24	1.7	3.8	82.8
	11	48	3.4	7.6	90.5
	12	60	4.2	9.5	100.0
	.	801	56.0	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	629				
MISSING CASES	801				

-----  
ALIVE1 FIRST BABY ALIVE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	6	.4	1.3	1.3
	1	406	28.4	86.2	87.5
	2	59	4.1	12.5	100.0
	.	959	67.1	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	471				
MISSING CASES	959				

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BIRMO2 MONTH OF SECOND BIRTH

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	145	10.1	78.4	78.4
	1	3	.2	1.6	80.0
	3	3	.2	1.6	81.6
	4	5	.3	2.7	84.3
	5	6	.4	3.2	87.6
	7	3	.2	1.6	89.2
	8	3	.2	1.6	90.8
	9	14	1.0	7.6	98.4
	11	3	.2	1.6	100.0
	.	1245	87.1	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 185 MISSING CASES 1245

ALIVE2 SECOND BABY ALIVE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	5	.3	8.8	8.8
	1	37	2.6	64.9	73.7
	2	15	1.0	26.3	100.0
	.	1373	96.0	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 57 MISSING CASES 1373

BIRMO3 MONTH OF THIRD BIRTH

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	119	8.3	100.0	100.0
	.	1311	91.7	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 119 MISSING CASES 1311

154

ALIVE3 THIRD BABY ALIVE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	2	.1	14.3	14.3
	2	12	.8	85.7	100.0
	.	1416	99.0	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 14 MISSING CASES 1416

ABORT NUMBER OF MISCARIAGES

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1383	96.7	99.0	99.0
	1	14	1.0	1.0	100.0
	.	33	2.3	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 1397 MISSING CASES 33

GC NUMBER OF CAC GROUPL COM MEMBERS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	299	20.9	21.2	21.2
	1	1113	77.8	78.8	100.0
	.	18	1.3	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 1412 MISSING CASES 18

155

GCREMO MONTH OF LAST GC MEETING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	121	8.5	10.2	10.2
	1	59	4.1	5.0	15.2
	2	104	7.3	8.8	24.0
	3	163	11.4	13.8	37.7
	4	482	33.7	40.7	78.4
	5	14	1.0	1.2	79.6
	6	6	.4	.5	80.1
	7	9	.6	.8	80.8
	8	3	.2	.3	81.1
	9	9	.6	.8	81.9
	10	21	1.5	1.8	83.6
	11	78	5.5	6.6	90.2
	12	116	8.1	9.8	100.0
	.	245	17.1	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 1185 MISSING CASES 245

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GCREYE YEAR OF LAST GC MEETING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	34	2.4	3.1	3.1
	83	253	17.7	23.1	26.2
	84	809	56.6	73.8	100.0
	.	334	23.4	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 1096 MISSING CASES 334

GCWOMO MONTH OF LAST GC WORK

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	123	8.6	10.6	10.6
	1	60	4.2	5.2	15.8
	2	107	7.5	9.2	25.1
	3	126	8.8	10.9	36.0
	4	494	34.5	42.7	78.7
	5	9	.6	.8	79.4
	6	3	.2	.3	79.7
	7	18	1.3	1.6	81.2
	9	6	.4	.5	81.8
	10	18	1.3	1.6	83.3
	11	80	5.6	6.9	90.2
	12	113	7.9	9.8	100.0
	.	273	19.1	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1157	MISSING CASES	273		

GCWQYE YEAR OF LAST GC WORK

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	45	3.1	4.1	4.1
	80	3	.2	.3	4.4
	82	3	.2	.3	4.7
	83	250	17.5	23.0	27.6
	84	788	55.1	72.4	100.0
	.	341	23.8	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1089	MISSING CASES	341		

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27 JUN 64  
22:21:02

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MCGILL UNIVERSITY

AMDAHL 5801

MVS 3.8

GS NUMBER OF GROUP STRAT MEMBERS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1035	72.4	76.5	76.5
	1	318	22.2	23.5	100.0
	.	77	5.4	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1353	MISSING CASES	77		

GSREMO MONTH OF LAST GS MEETING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	432	30.2	57.1	57.1
	1	18	1.3	2.4	59.4
	2	39	2.7	5.2	64.6
	3	48	3.4	6.3	70.9
	4	97	6.8	12.8	83.8
	5	15	1.0	2.0	85.7
	8	3	.2	.4	86.1
	9	9	.6	1.2	87.3
	10	6	.4	.8	88.1
	11	42	2.9	5.5	93.7
	12	48	3.4	6.3	100.0
	.	673	47.1	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	757	MISSING CASES	673		

152

GSREYE YEAR OF LAST GS MEETING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	154	10.8	32.0	32.0
	8	3	.2	.6	32.6
	83	111	7.8	23.0	55.6
	84	214	15.0	44.4	100.0
	.	948	66.3	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	482	MISSING CASES	948		

GSWOMD MONTH OF LAST GS WORK

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	413	28.9	56.9	56.9
	1	15	1.0	2.1	59.0
	2	31	2.2	4.3	63.2
	3	57	4.0	7.9	71.1
	4	67	4.7	9.2	80.3
	5	15	1.0	2.1	82.4
	6	3	.2	.4	82.8
	7	3	.2	.4	83.2
	8	3	.2	.4	83.6
	10	6	.4	.8	84.4
	11	44	3.1	6.1	90.5
	12	69	4.8	9.5	100.0
	.	704	49.2	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	726	MISSING CASES	704		

159

GSWOYE YEAR OF LAST GS WORK

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	142	9.9	31.0	31.0
	82	3	.2	.7	31.7
	93	126	8.8	27.5	59.2
	84	187	13.1	40.8	100.0
	.	972	68.0	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	458	MISSING CASES	972		

COS NUMBER OF COSHAINAULT MEMBERS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1183	82.7	90.5	90.5
	1	124	8.7	9.5	100.0
	.	123	8.6	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1307	MISSING CASES	123		

COSREMO MONTH OF LAST COSHAINAULT MEETING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	546	38.2	80.8	80.8
	1	3	.2	.4	81.2
	2	3	.2	.3	81.5
	3	12	.8	1.8	83.3
	4	95	6.6	14.1	97.3
	11	3	.2	.4	97.8
	12	15	1.0	2.2	100.0
	.	754	52.7	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	676	MISSING CASES	754		

COSREYE YEAR OF LAST COSHAINAULT MEETING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	185	12.9	58.7	58.7
	83	18	1.3	5.7	64.4
	84	112	7.8	35.6	100.0
	.	1115	78.0	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	315	MISSING CASES	1115		

---  
 COP NUMBER OF COPCOD MEMBERS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1033	72.2	78.4	78.4
	1	284	19.9	21.6	100.0
	.	113	7.9	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1317	MISSING CASES	113		

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 COPREMO MONTH OF LAST COPCOD MEETING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	411	28.7	58.1	58.1
	3	27	1.9	3.8	62.0
	4	259	18.1	36.6	98.6
	5	4	.3	.6	99.2
	10	3	.2	.4	99.6
	20	3	.2	.4	100.0
	.	723	50.6	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	707	MISSING CASES	723		

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COPREYE YEAR OF LAST COPCOD MEETING

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	160	11.2	35.1	35.1
	48	6	.4	1.3	36.4
	83	12	.8	2.6	39.0
	84	278	19.4	61.0	100.0
	.	974	68.1	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	456	MISSING CASES	974		

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 WALL MATERIAL OF WALL CONSTRUCTION

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
BLOK	1	753	52.7	52.8	52.8
MIRAYE	2	655	45.8	45.9	98.7
MASONEN	3	19	1.3	1.3	100.0
	.	3	.2	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1427	MISSING CASES	3		

-----  
 ROOF MATERIAL OF ROOF CONSTRUCTION

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
BETON	1	869	60.8	61.2	61.2
TOL	2	550	38.5	38.7	99.9
PAY	3	2	.1	1	100.0
	.	9	.6	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1421	MISSING CASES	9		

162

FLOOR MATERIAL OF FLOOR CONSTRUCTION

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
SIMAN	1	1055	73.8	74.2	74.2
ROCH AK	2	178	12.4	12.5	86.8
ROCH TE	3	188	13.1	13.2	100.0
	.	9	.6	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1421	MISSING CASES	9		

GALERI PRESENCE OF A GALERY

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	449	31.4	31.4	31.4
	2	981	68.6	68.6	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

ROOMS NUMBER OF ROOMS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	1	25	1.7	1.8	1.8
	2	753	52.7	53.2	54.9
	3	269	18.8	19.0	73.9
	4	238	16.6	16.8	90.7
	5	103	7.2	7.3	98.0
	6	22	1.5	1.6	99.6
	7	6	.4	.4	100.0
	.	14	1.0	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1416	MISSING CASES	14		

1/13

PANN PRESENCE OF PANNTYE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
YES	0	1279	89.4	89.4	89.4
	1	151	10.6	10.6	100.0
TOTAL		1430	100.0	100.0	
VALID CASES	1430	MISSING CASES		0	

GADM PRESENCE OF GAD MANJE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
YES	0	1331	93.1	93.3	93.3
	1	96	6.7	6.7	100.0
	.	3	.2	MISSING	
TOTAL		1430	100.0	100.0	
VALID CASES	1427	MISSING CASES		3	

KABA PRESENCE OF KABANN

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
YES	0	67	4.7	4.7	4.7
	1	1360	95.1	95.3	100.0
	.	3	.2	MISSING	
TOTAL		1430	100.0	100.0	
VALID CASES	1427	MISSING CASES		3	

169

CHEZ PRESENCE OF CHEZ BOURE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
YES	0	1387	97.0	97.0	97.0
	1	43	3.0	3.0	100.0
TOTAL		1430	100.0	100.0	
VALID CASES	1430	MISSING CASES		0	

RADY PRESENCE OF RADYO

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
YES	0	1074	75.1	75.1	75.1
	1	356	24.9	24.9	100.0
TOTAL		1430	100.0	100.0	
VALID CASES	1430	MISSING CASES		0	

LANP PRESENCE OF LANP A VE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
YES	0	1036	72.4	72.4	72.4
	1	394	27.6	27.6	100.0
TOTAL		1430	100.0	100.0	
VALID CASES	1430	MISSING CASES		0	

165

AMWA PRESENCE OF AMWA

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
YES	0	1283	89.7	89.7	89.7
	1	147	10.3	10.3	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES		0	

-----  
 KANARI PRESENCE OF KANARI

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
YES	0	705	49.3	49.4	49.4
	1	722	50.5	50.6	100.0
	.	3	.2	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1427	MISSING CASES		3	

-----  
 LATRIN PRESENCE OF A LATRINE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
NO	0	1210	84.6	85.8	85.8
	2	200	14.0	14.2	100.0
	.	20	1.4	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1410	MISSING CASES		20	

166

POULP NUMBER OF POUL PEYI

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	235	16.4	16.4	16.4
	1	150	10.5	10.5	26.9
	2	183	12.8	12.8	39.7
	3	168	11.7	11.7	51.5
	4	124	8.7	8.7	60.1
	5	122	8.5	8.5	68.7
	6	107	7.5	7.5	76.2
	7	78	5.5	5.5	81.6
	8	42	2.9	2.9	84.5
	9	41	2.9	2.9	87.4
	10	55	3.8	3.8	91.3
	11	11	.8	.8	92.0
	12	29	2.0	2.0	94.1
	13	9	.6	.6	94.7
	14	14	1.0	1.0	95.7
	15	26	1.8	1.8	97.5
	16	9	.6	.6	98.1
	17	3	.2	.2	98.3
	18	3	.2	.2	98.5
	20	9	.6	.6	99.2
	21	3	.2	.2	99.4
	22	3	.2	.2	99.6
	25	3	.2	.2	99.8
	40	3	.2	.2	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430				
MISSING CASES		0			

167

POULC NUMBER OF POUL CHIN

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1336	93.4	93.6	93.6
	1	57	4.0	4.0	97.6
	2	19	1.3	1.3	98.9
	3	6	.4	.4	99.4
	4	3	.2	.2	99.6
	5	3	.2	.2	99.8
	6	3	.2	.2	99.8
	.	3	.2	MISSING	100.0
	TOTAL	1430	100.0	100.0	

VALID CASES 1427 MISSING CASES 3

BATAC NUMBER OF BATA CHIN

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1282	89.7	90.2	90.2
	1	74	5.2	5.2	95.4
	2	29	2.0	2.0	97.5
	3	18	1.3	1.3	98.7
	4	7	.5	.5	99.2
	5	6	.4	.4	99.6
	6	3	.2	.2	99.9
	8	2	.1	.1	99.9
	.	9	.6	MISSING	100.0
	TOTAL	1430	100.0	100.0	

VALID CASES 1421 MISSING CASES 9

167

KOK NUMBER OF KOK

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1076	75.2	75.4	75.4
	1	180	12.6	12.6	88.0
	2	102	7.1	7.1	95.2
	3	45	3.1	3.2	98.3
	4	9	.6	.6	98.9
	5	15	1.0	1.1	98.9
	.	3	.2	MISSING	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1427	MISSING CASES	3		

KABRIT NUMBER OF KABRIT

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	534	37.3	37.3	37.3
	1	211	14.8	14.8	52.1
	2	218	15.2	15.2	67.3
	3	135	9.4	9.4	76.8
	4	97	6.8	6.8	83.6
	5	93	6.5	6.5	90.1
	6	52	3.6	3.6	93.7
	7	27	1.9	1.9	95.6
	8	17	1.2	1.2	96.8
	9	3	.2	.2	97.0
	10	10	.7	.7	97.7
	11	3	.2	.2	97.9
	12	14	1.0	1.0	98.9
	15	6	.4	.4	99.3
	16	6	.4	.4	99.7
	17	2	.1	.1	99.9
	20	2	.1	.1	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

169

BEF NUMBER OF BEF

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	935	65.4	65.5	65.5
	1	233	16.3	16.3	81.9
	2	160	11.2	11.2	93.1
	3	39	2.7	2.7	95.8
	4	29	2.0	2.0	97.8
	5	18	1.3	1.3	99.1
	6	3	.2	.2	99.3
	8	6	.4	.4	99.7
	10	2	.1	.1	99.9
	25	2	.1	.1	100.0
	.	3	.2	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 1427 MISSING CASES 3

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 BOURIK NUMBER OF BOURIK

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1402	98.0	98.8	98.8
	1	14	1.0	1.0	99.8
	2	3	.2	.2	100.0
	.	11	.8	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 1419 MISSING CASES 11

170

CHEVAL NUMBER OF CHEVAL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1025	71.7	71.8	71.8
	1	283	19.8	19.8	91.7
	2	96	6.7	6.7	98.4
	3	20	1.4	1.4	99.8
	4	3	.2	.2	100.0
	.	3	.2	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1427	MISSING CASES	3		

MILET NUMBER OF MILET

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1323	92.5	93.0	93.0
	1	80	5.6	5.6	98.7
	2	19	1.3	1.3	100.0
	.	8	.6	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1422	MISSING CASES	8		

PENTAD NUMBER OF PENTAD

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1416	99.0	99.2	99.2
	1	8	.6	.6	99.8
	4	3	.2	.2	100.0
	.	3	.2	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1427	MISSING CASES	3		

171

KANA NUMBER OF KANA

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1400	97.9	98.3	98.3
	1	7	.5	.5	98.8
	2	13	.9	.9	99.7
	4	4	.3	.3	100.0
	.	6	.4	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1424	MISSING CASES	6		

KODENN NUMBER OF KODENN

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1416	99.0	99.2	99.2
	1	6	.4	.4	99.6
	3	2	.1	.1	99.8
	7	3	.2	.2	100.0
	.	3	.2	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1427	MISSING CASES	3		

DLO SOURCE OF MOST DRINKING WATER

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
TIYO	0	2	.1	.1	.1
SOUS	1	857	59.9	59.9	60.1
RIVYE	2	550	38.5	38.5	98.5
LOT KOTE	3	15	1.0	1.0	99.6
	4	6	.4	.4	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

122

LEGIM NUMBER OF VEGETABLE HARVESTS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	430	30.1	44.5	44.5
	1	330	23.1	34.2	78.7
	2	148	10.3	15.3	94.0
	3	41	2.9	4.2	98.2
	4	17	1.2	1.8	100.0
	.	464	32.4	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	966	MISSING CASES	464		

CONPOS PRESENCE OF COMPOST HOLE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
YES	0	947	66.2	66.2	66.2
	1	483	33.8	33.8	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

LAPEN NUMBER RABBITS ALIVE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	295	20.6	83.3	83.3
	1	28	2.0	7.9	91.2
	2	9	.6	2.5	93.8
	3	3	.2	.8	94.6
	4	6	.4	1.7	96.3
	5	3	.2	.8	97.2
	8	6	.4	1.7	98.9
	9	4	.3	1.1	100.0
	.	1076	75.2	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	354	MISSING CASES	1076		

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LMANJE NUMBER RABBITS EATEN

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	276	19.3	89.0	89.0
	1	20	1.4	6.5	95.5
	2	11	.8	3.5	99.0
	3	3	.2	1.0	100.0
	.	1120	78.3	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	310	MISSING CASES	1120		

121

LVANN NUMBER RABBITS SOLD

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	302	21.1	97.4	97.4
	1	6	.4	1.9	99.4
	3	2	.1	.6	100.0
	.	1120	78.3	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	310	MISSING CASES	1120		

LBAY NUMBER RABBITS GIVEN AWAY

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	289	20.2	94.1	94.1
	1	10	.7	3.3	97.4
	3	6	.4	2.0	99.3
	4	2	.1	.7	100.0
	.	1123	78.5	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	307	MISSING CASES	1123		

175

LFET NUMBER RABBITS BORN

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	248	17.3	81.6	81.6
	1	3	.2	1.0	82.6
	3	6	.4	2.0	84.5
	4	3	.2	1.0	85.5
	5	3	.2	1.0	86.5
	6	6	.4	2.0	88.5
	7	11	.8	3.6	92.1
	9	6	.4	2.0	94.1
	10	3	.2	1.0	95.1
	12	5	.3	1.6	96.7
	13	2	.1	.7	97.4
	19	2	.1	1.0	98.4
	21	2	.1	.7	99.0
	23	3	.2	1.0	100.0
	.	1126	78.7	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	304				
MISSING CASES	1126				

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LMOURI NUMBER RABBITS DIED

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	221	15.5	78.9	78.9
	1	2	.1	.7	79.6
	2	6	.4	2.1	81.8
	3	6	.4	2.1	83.9
	4	8	.6	2.9	86.8
	5	6	.4	2.1	88.9
	6	9	.6	3.2	92.1
	7	2	.1	.7	92.9
	9	3	.2	1.1	93.9
	10	3	.2	1.1	95.0
	11	3	.2	1.1	95.0
	12	2	.1	2.1	97.1
	14	2	.1	.7	97.9
	15	3	.2	1.1	98.9
	.	1150	80.4	MISSING	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	.. 280	MISSING CASES	1150		

PMANJE FISH EATEN

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	3	.2	.9	.9
	1	66	4.6	20.7	21.6
	2	250	17.5	78.4	100.0
	.	1111	77.7	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	319	MISSING CASES	1111		

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PVANN FISH SOLD

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	1	36	2.5	14.9	14.9
	2	205	14.3	85.1	100.0
	.	1189	83.1	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 241 MISSING CASES 1189

MALADI NEWCASTLE CHICKEN DISEASE IN 83

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	17	1.2	1.3	1.3
YES	1	841	58.8	63.1	64.4
NO	2	474	33.1	35.6	100.0
	.	98	6.9	MISSING	
	TOTAL	1430	100.0	100.0	

VALID CASES 1332 MISSING CASES 98

178

VAKS NUMBER CHICKEN VACCINATED

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	613	42.9	72.0	72.0
	1	16	1.1	1.9	73.9
	2	19	1.3	2.2	76.1
	3	31	2.2	3.6	79.8
	4	29	2.0	3.4	83.2
	5	37	2.6	4.3	87.5
	6	33	2.3	3.9	91.4
	7	23	1.6	2.7	94.1
	8	15	1.0	1.8	95.9
	9	4	.3	.5	96.4
	10	18	1.3	2.1	98.5
	11	2	.1	.3	98.7
	16	2	.1	.3	98.9
	17	2	.1	.3	99.3
	19	2	.1	.3	99.5
	22	2	.1	.3	99.8
	30	2	.1	.3	99.8
	.	579	40.5	MISSING	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	851				
MISSING CASES		579			

179

TOUYE NEWCASTLE CHICKEN DEATHS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	328	22.9	26.2	26.2
	1	14	1.0	1.1	27.3
	2	10	.7	.8	28.1
	3	62	4.3	5.0	33.1
	4	47	3.3	3.8	36.8
	5	99	6.9	7.9	44.7
	6	128	9.0	10.2	55.0
	7	118	8.3	9.4	64.4
	8	43	3.0	3.4	67.8
	9	34	2.4	2.7	70.5
	10	163	11.4	13.0	83.5
	11	29	2.0	2.3	85.9
	12	30	2.1	2.4	88.3
	13	13	.9	1.0	89.3
	14	12	.8	1.0	90.3
	15	33	2.3	2.6	92.9
	16	11	.8	.9	93.8
	17	6	.4	.5	94.2
	18	18	1.3	1.4	95.7
	20	21	1.5	1.7	97.4
	21	9	.6	.7	98.1
	22	3	.2	.2	98.3
	25	15	1.0	1.2	99.5
	27	3	.2	.2	99.8
	33	3	.2	.2	100.0
	.	178	12.4	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1252	MISSING CASES	178		

CHAPE SURVIVING CHICKEN IN 83

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	384	26.9	31.1	31.1
	1	204	14.3	16.5	47.7
	2	173	12.1	14.0	61.7
	3	163	11.4	13.2	74.9
	4	60	4.2	4.9	79.8
	5	75	5.3	6.2	86.0
	6	58	4.1	4.7	90.7
	7	36	2.5	2.9	93.6
	8	17	1.2	1.4	95.0
	9	12	.8	1.0	95.9
	10	14	1.0	1.1	97.1
	12	11	.8	.9	98.0
	13	3	.2	.2	98.2
	14	5	.3	.4	98.6
	15	9	.6	.7	99.4
	17	3	.2	.2	99.6
	19	2	.1	.2	99.8
	20	3	.2	.2	99.8
	.	197	13.8	MISSING	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1233	MISSING CASES	197		

JENES JEUNESSE RURALE PARTICIPATION

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
YES	0	12	.8	.8	.8
NO	1	268	18.7	18.9	19.7
	2	1141	79.8	80.3	100.0
	.	9	.6	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1421	MISSING CASES	9		

101

PRESCOL NUMBER PRESCHOOL PARTICIPANTS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1214	84.9	85.3	85.3
	1	179	12.5	12.6	97.8
	2	31	2.2	2.2	100.0
	.	6	.4	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1424	MISSING CASES	6		

LEKOLGR NUMBER COMMUNITY SCHOOL PARTICIPANTS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	0	1301	91.0	91.2	91.2
	1	63	4.4	4.4	95.6
	2	39	2.7	2.7	98.3
	3	21	1.5	1.5	99.8
	5	3	.2	.2	100.0
	.	3	.2	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1427	MISSING CASES	3		

RVALAN

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
LOW	1.00	339	23.7	23.7	23.7
LOWMED	2.00	348	24.3	24.3	48.0
HIGHMED	3.00	361	25.2	25.2	73.3
HIGH	4.00	382	26.7	26.7	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

120

DEGREE LEVEL OF PROJECT ACTIVITY

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
LOW	1.00	288	20.1	20.2	20.2
MED	2.00	486	34.0	34.1	54.2
HIGH	3.00	653	45.7	45.8	100.0
		3	.2	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1427	MISSING CASES	3		

LORAN ANIMAL VALUE DECILES

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
LOWEST	1.00	113	7.9	8.1	8.1
	2.00	144	10.1	10.3	18.4
	3.00	153	10.7	10.9	29.3
	4.00	135	9.4	9.7	39.0
	5.00	142	9.9	10.2	49.1
	6.00	145	10.1	10.4	59.5
	7.00	143	10.0	10.2	69.7
	8.00	143	10.0	10.2	80.0
HIGHEST	9.00	141	9.9	10.1	90.1
	10.00	139	9.7	9.9	100.0
		32	2.2	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1398	MISSING CASES	32		

122

HOUSTYP HOUSE CONSTRUCTION TYPE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	4.00	13	.9	.9	.9
	5.00	208	14.5	15.0	16.0
	6.00	147	10.3	10.6	26.6
	7.00	219	15.3	15.8	42.4
	8.00	230	16.1	16.6	59.0
	9.00	121	8.5	8.7	67.8
	10.00	85	5.9	6.1	73.9
	11.00	52	3.6	3.8	77.7
	12.00	103	7.2	7.4	85.1
	13.00	68	4.8	4.9	90.0
	14.00	45	3.1	3.3	93.3
	15.00	46	3.2	3.3	96.6
	16.00	23	1.6	1.7	98.3
	17.00	16	1.1	1.2	99.4
	18.00	5	.3	.4	99.8
	19.00	3	.2	.2	99.8
	.	46	3.2	MISSING	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1384	MISSING CASES	46		

CONSUM CONSUMPTION ITEM OWNERSHIP

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	46	3.2	3.2	3.2
	1.00	503	35.2	35.4	38.6
	2.00	417	29.2	29.3	68.0
	3.00	158	11.0	11.1	79.1
	4.00	156	10.9	11.0	90.1
	5.00	65	4.5	4.6	94.7
	6.00	49	3.4	3.4	98.1
	7.00	25	1.7	1.8	99.9
	8.00	2	.1	.1	99.9
	.	9	.6	MISSING	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1421	MISSING CASES	9		

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HOUSECO ECON STATUS - HOUSTYP AND CONSUM

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	3	.2	.2	.2
	1.00	16	1.1	1.2	1.4
	2.00	134	9.4	9.7	11.1
	3.00	137	9.6	10.0	21.1
	4.00	176	12.3	12.8	33.9
	5.00	186	13.0	13.5	47.4
	6.00	140	9.8	10.2	57.6
	7.00	128	9.0	9.3	66.9
	8.00	75	5.2	5.5	72.4
	9.00	35	2.4	2.5	74.9
	10.00	53	3.7	3.9	78.8
	11.00	39	2.7	2.8	81.6
	12.00	50	3.5	3.6	85.2
	13.00	56	3.9	4.1	89.3
	14.00	36	2.5	2.6	91.9
	15.00	33	2.3	2.4	94.3
	16.00	19	1.3	1.4	95.7
	17.00	28	2.0	2.0	97.7
	18.00	16	1.1	1.2	98.9
	19.00	5	.3	.4	99.3
	21.00	10	.7	.7	100.0
		55	3.8	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1375	MISSING CASES	55		

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RRHOUS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	1.00	290	20.3	21.1	21.1
	2.00	176	12.3	12.8	33.9
	3.00	326	22.8	23.7	57.6
	4.00	238	16.6	17.3	74.9
	5.00	142	9.9	10.3	85.2
	6.00	203	14.2	14.8	100.0
	.	55	3.8	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1375	MISSING CASES	55		

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RHOUSECO

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	290	20.3	21.1	21.1
	1.00	362	25.3	26.3	47.4
	2.00	268	18.7	19.5	66.9
	3.00	163	11.4	11.9	78.8
	4.00	145	10.1	10.5	89.3
	5.00	147	10.3	10.7	100.0
	.	55	3.8	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1375	MISSING CASES	55		

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ECOSTAT ECON STATUS -HOUSE CONSUM VALAN

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	1.00	82	5.7	6.1	6.1
	2.00	177	12.4	13.1	19.2
	3.00	182	12.7	13.5	32.7
	4.00	184	12.9	13.6	46.3
	5.00	195	13.6	14.5	60.8
	6.00	131	9.2	9.7	70.5
	7.00	159	11.1	11.8	82.3
	8.00	78	5.5	5.8	88.1
	9.00	85	5.9	6.3	94.4
	10.00	76	5.3	5.6	100.0
	.	81	5.7	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1349	MISSING CASES	81		

RECOSTAT

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	1.00	259	18.1	19.2	19.2
	2.00	366	25.6	27.1	46.3
	3.00	326	22.8	24.2	70.5
	4.00	237	16.6	17.6	88.1
	5.00	161	11.3	11.9	100.0
	.	81	5.7	MISSING	
	TOTAL	1430	100.0	100.0	
VALID CASES	1349	MISSING CASES	81		

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RDLO

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	573	40.1	40.1	40.1
	1.00	857	59.9	59.9	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

RLEGIM

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	894	62.5	62.5	62.5
	1.00	536	37.5	37.5	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

RKONPOS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	947	66.2	66.2	66.2
	1.00	483	33.8	33.8	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

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RLAPEN

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	1371	95.9	95.9	95.9
	1.00	59	4.1	4.1	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

RPMANJE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	1364	95.4	95.4	95.4
	1.00	66	4.6	4.6	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

RVAKS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	1192	83.4	83.4	83.4
	1.00	238	16.6	16.6	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

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RJENES

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	1162	81.3	81.3	81.3
	1.00	268	18.7	18.7	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

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RPRESCOL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	1220	85.3	85.3	85.3
	1.00	210	14.7	14.7	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

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RLEKOLGR

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	1304	91.2	91.2	91.2
	1.00	126	8.8	8.8	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

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BENEF NUMBER OF PROJECT BENEFITS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	260	18.2	18.2	18.2
	1.00	373	26.1	26.1	44.3
	2.00	331	23.1	23.1	67.4
	3.00	203	14.2	14.2	81.6
	4.00	163	11.4	11.4	93.0
	5.00	100	7.0	7.0	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

BENIN NUMBER OF INFRASTRUCTURE BENEFITS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	400	28.0	28.0	28.0
	1.00	672	47.0	47.0	75.0
	2.00	297	20.8	20.8	95.7
	3.00	49	3.4	3.4	99.2
	4.00	12	.8	.8	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

191

BENPRO NUMBER PRODUCTION RELATED BENEFITS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	634	44.3	44.3	44.3
	1.00	373	26.1	26.1	70.4
	2.00	295	20.6	20.6	91.0
	3.00	101	7.1	7.1	98.1
	4.00	19	1.3	1.3	99.4
	5.00	8	.6	.6	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

RE PROTESTANTS AMONG FIRST TWO HH MEMBERS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
PROT	1.00	341	23.8	23.8	23.8
CATH	2.00	1089	76.2	76.2	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

1/2

ADULTS NUMBER OF ADULTS IN HOUSEHOLD

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	3	.2	.2	.2
	1.00	48	3.4	3.4	3.6
	2.00	528	36.9	36.9	40.5
	3.00	386	27.0	27.0	67.5
	4.00	233	16.3	16.3	83.8
	5.00	142	9.9	9.9	93.7
	6.00	61	4.3	4.3	98.0
	7.00	14	1.0	1.0	99.0
	8.00	15	1.0	1.0	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

CHILDREN NUMBER OF CHILDREN IN HOUSEHOLD

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	71	5.0	5.0	5.0
	1.00	153	10.7	10.7	15.7
	2.00	284	19.9	19.9	35.5
	3.00	263	18.4	18.4	53.9
	4.00	241	16.9	16.9	70.8
	5.00	168	11.7	11.7	82.5
	6.00	139	9.7	9.7	92.2
	7.00	60	4.2	4.2	96.4
	8.00	30	2.1	2.1	98.5
	9.00	12	.8	.8	99.4
	10.00	9	.6	.6	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

192

HHSIZE TOTAL NUMBER OF HH MEMBERS

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	1.00	3	2.2	2.2	2.2
	2.00	33	2.3	2.3	2.5
	3.00	105	7.3	7.3	9.9
	4.00	179	12.5	12.5	22.4
	5.00	229	16.0	16.0	38.4
	6.00	187	13.1	13.1	51.5
	7.00	212	14.8	14.8	66.3
	8.00	160	11.2	11.2	77.5
	9.00	135	9.4	9.4	86.9
	10.00	87	6.1	6.1	93.0
	11.00	31	2.2	2.2	95.2
	12.00	13	.9	.9	96.1
	13.00	24	1.7	1.7	97.8
	14.00	11	.8	.8	98.5
	15.00	21	1.5	1.5	100.0
	TOTAL	1430	100.0	100.0	

VALID CASES 1430 MISSING CASES 0

LITALL NUMBER OF LITERATES IN HH

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	430	30.1	30.1	30.1
	1.00	393	27.5	27.5	57.6
	2.00	283	19.8	19.8	77.3
	3.00	127	8.9	8.9	86.2
	4.00	89	6.2	6.2	92.4
	5.00	52	3.6	3.6	96.1
	6.00	29	2.0	2.0	98.1
	7.00	24	1.7	1.7	99.8
	8.00	3	.2	.2	100.0
	TOTAL	1430	100.0	100.0	

VALID CASES 1430 MISSING CASES 0

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SCHOOLAL NUMBER HH MEMBERS IN SCHOOL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
	.00	614	42.9	42.9	42.9
	1.00	317	22.2	22.2	65.1
	2.00	255	17.8	17.8	82.9
	3.00	113	7.9	7.9	90.8
	4.00	65	4.5	4.5	95.4
	5.00	36	2.5	2.5	97.9
	6.00	24	1.7	1.7	99.6
	7.00	6	.4	.4	100.0
	TOTAL	1430	100.0	100.0	
VALID CASES	1430	MISSING CASES	0		

195