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Issues Related to AID's Current Use of Quantitative Data Pertaining to Rural Development

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Note: Emmy Simmons and Joan Atherton provided useful comments which helped clarify the argument of this report.

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Preface

This report examines AID's current procedures for the use and management of quantitative, socio-economic data relevant to rural development. It describes some of the main activities of five units which are most directly involved with quantitative data for the Agency: S&T/DIU, SER/DM, BuCen/SEU, S&T/POP and PPC/E. The focus of the report is on the organization of AID/Washington's data delivery system. (The argument is made that the diversity of AID's activities generates a demand for various types of data. Further, it is assumed that the information needs of the Agency are best met when they are matched to appropriate level data, ranging from national aggregate statistics to project specific information.)

The purpose of the report, then is to identify in a preliminary way what appear to be current restraints and inadequacies hindering the efficient operation of the Agency's data delivery system. These problems will not remedy themselves; rather, they are issues which can only be dealt with by improving the information policy of the Agency.

This report is based on information gathered from interviews conducted in Washington during a three week period. Twenty-four AID/Washington personnel and six professionals working under the RSSA's the Agency has with the Bureau of the Census and the Department of Agriculture were interviewed for one to two hours concentrating primarily on their experiences

of AID's use of and its general orientation toward quantitative data. It is important to note that the vast majority of those contacted were very interested in the report and cooperated fully. Many expressed considerable satisfaction over the fact that the Agency, and in particular PPC, was giving serious attention to what they thought was a very problematic area. The views of only one officer currently stationed in an AID mission were obtained. However, this interview suggested that the views of AID/Washington regarding what is and what is not possible in the missions do not necessarily correspond with the views of mission staff. Relevant documents, such as telegrams, policy statements, manuals and handbooks produced by AID personnel and by outside contractors provided additional information describing what efforts relevant to this report had been attempted in the past. This material clarified some of the Agency's official pronouncements concerning the use of quantitative data in mission activities such as the CDSS. Various budget statements and the CDSS's of Tanzania and the Philippines offered useful illustrations of the current state of affairs in the use of quantitative data. Obviously, the basis of this report is not comprehensive; however, the range of opinions expressed by those interviewed and the repetition of similar opinions by different individuals toward the end of the process suggests that the information presented, though not complete, at least catches some of the major

points of contention and problem areas.

Three general categories of issues pertinent to improving the data delivery system of the Agency are identified. First, the relative investment in national aggregate as opposed to sub-national data is one major issue. Related to this issue, possible sources of sub-national data are discussed as options the Agency might pursue. The issue of decentralized (i.e., microcomputer) based computing is also reviewed. The second category of issues consists of organizational problems; in particular, the lack of coordination between key divisions and the lack of communication between regional and central bureaus are discussed. The basic problem appears to be the absence of an Agency-wide policy which would provide necessary guidance in this area. The third category is the issue of institutional disincentives toward the use of quantitative data in the Agency. The argument is made that until the reward system of AID encourages the use of such data, improvements are unlikely.

Introduction: The Problem of Matching Appropriate Level Data to Information Needs

This paper is the first of two reports concerning the use and management by AID of quantitative, socio-economic data pertinent to rural development. It presents a selective overview of current activities and procedures for the collection, reporting, analysis and interpretation of quantitative data within the Agency. The basic framework for describing AID's data use and management is that the diversity of Agency activities has generated corresponding needs for commensurate, appropriate level data. In other words, as the Agency's activities become increasingly specific - i.e., the focus shifts from the country as a whole to certain, delimited parts of it - its needs for information similarly move from national aggregate statistics to project specific, sub-national data.

Of these two basic categories of data, national aggregate statistics are the more familiar to AID. In general, they are numeric representations, such as averages, per capita statistics and ratios, which characterize some aspect of the national population. Less familiar perhaps because they have been less frequently used by the Agency in the past, are sub-national data. In contrast to aggregate statistics, the term sub-

national refers to any systematically collected data where the units of analysis constitute sub-elements of the country. The units might be existing, arbitrarily defined political divisions, such as provinces or townships, naturally occurring units of social organization, such as households or communities, or specially delimited divisions such as functional agricultural zones. Typically, a sub-national data set includes only one portion of the country, such as a particular region or smaller geographic area. AID's collection and use of sub-national data is usually in connection with specific project related questions. For example, a survey of local communities might be conducted to ascertain whether an irrigation project had unanticipated effects on the wellbeing of villagers using the system, or data might be collected to determine whether a dry lands agricultural project managed to increase production equally throughout the region in which it was implemented. Comprehensive national surveys can also be thought of as a special form of sub-national data sets where all sub-units (or a representative sample) are included with the caveat that the data are available for use in the original units of data collection and have not been aggregated to the national level.

Based on the distinction between national aggregate and sub-national data, it is possible to match general categories of the Agency's activities (or information needs) with the appropriate level data:

Activity	Appropriate Level Data
1) Cross-national comparisons	National aggregate
2) National descriptions	National aggregate
3) Strategy and Policy Planning	Nat. agg. & sub-national(regional level)
4) Project design	Sub-national(provincial level)
5) Monitoring and Evaluation	Sub-national(project specific)

Because AID engages in little cross-national, comparative analysis, such as the 102(d) methodology which is considered to be of decreasing importance, the first two activities could be collapsed into one general category of country descriptions based on national aggregate statistics, giving a total of four general types of information need.

The first objective of this report is to describe the actual handling of the various facets of quantitative data usage by AID/Washington and to a lesser extent, by AID missions. The purpose is to provide an outline of the delivery system that currently exists for matching Agency information needs to appropriate types of data. It should be clear, then, that the report stands in contrast to various guidebooks, manuals and other

such documents which emphasize the potential utility of quantitative data or particular techniques, describe how quantitative data ought to be collected and used, or argue in a somewhat hypothetical manner where quantitative information ought to "flow" during the course of a development project. Rather, this report accepts the legitimacy of such arguments and begins with the premise that quantitative data, when properly collected and used, can be of considerable value throughout many phases of AID's development activities.

The second purpose of this report is to identify where data needs are either not adequately met or are matched with inappropriate level data. Therefore, a major focus of the report is on the division of labor and the delegation of responsibility for data related activities within the Agency and how organizational problems adversely affect the efficient and effective use of quantitative data. The underlying assumption of this organizational focus should be made clear at this point. The first step in addressing the gap between information needs, on the one hand, and available data, on the other, is to gain recognition of this problem as a policy relevant issue which will not miraculously resolve itself. In the absence of explicit policies addressing how key aspects of quantitative data use are to be

handled along, combined with a lack of recognition on the part of AID administrators of the longrun benefits which would accrue to Agency operations from better quantitative analysis and interpretation, it is likely that current problems in matching information needs to appropriate data will become more acute. In particular, without an Agency wide information policy which is fully supported by management (committing money, manpower and worktime to it), a more rational approach to Agency planning based on appropriate level data can hardly be expected to evolve on its own. Moreover, the disorganization of AID's data operations might have the spillover effect of undermining attempts to develop the institutional capacity of LDC's to deal with quantitative data they need for their own planning purposes.

There is a curious ambiguity in the Agency's current position concerning data use and management. On the one hand, AID personnel will attest to the fact that merely moving money and obligating funds is the Agency's foremost activity. On the other, in light of constant or diminishing funds, there is a need for greater accuracy in all facets of AID projects. This latter factor clearly means that the activities of AID must become more analytically based to avoid bad policy decisions and bad planning, not to mention the repetition of old mistakes. As the following

section will describe, there currently is an impetus for more and better data use, but the Agency seems slow in following up on it and facilitating this very positive development. The question is, then, whether the Agency will rise to the occasion and further what momentum exists to improve its data based activities.

Part I: The Impetus Behind the Use of Appropriate Level Data

The directive for AID as specified in the Congressional Mandate - helping the poor of developing countries by servicing their needs in the areas of Income, Nutrition, Health, Rural Production, Population and Education - are instrumental in promoting the greater use of data within the Agency. In that the Mandate equates national development with progress in one or more of the six key sectors, a successful AID project is one in which the targeted poor of the host country show marked improvement in at least one of these benchmark areas. This view is contained in the guidelines for the CDSS process. It is worth considering what the guidelines both imply and demand in terms of greater use of sub-national data.

The ideal CDSS is a direct embodiment of Mandate directives; that is, it focuses on the poor majority, contains strategies for affecting development in one or more of the six key areas and must consider the issue of equitable growth in its assessment of host country cooperation and overall progress. As the basic planning document of the Agency, the CDSS must:

> "... express the Mission's understanding of the overall development problems and issues, propose what objectives, policies, and programs AID should pursue and explain the rea-

soning behind the choice" (PPC Airgram 9/6/78:p2)

Among other things, the CDSS is intended to:

> "...show, in quantitative and qualitative terms what AID expects to achieve in a country and how AID intends to do it. Thus, the CDSS will provide the standard against which effectiveness can be measured." (Ibid:p2)

Here is an explicit call for the use of quantitative data by mission staff preparing the CDSS. In terms of content, the CDSS should include an analytically based section identifying appropriate target groups (i.e., the poor majority). However, the directives for CDSS preparation state:

> "We do not want background studies, analyses, and assessments to be submitted as part of the CDSS. The analytical and descriptive materials in the CDSS will therefore be summaries of available information some of which will be detailed in AID supported sector or problem analyses and studies." (Ibid:p4)

An important part of the CDSS process will be a periodic review by AID/Washington and though policy issues are the major concern, "...reviewers will also examine the ade-

> quacy of the analysis, the logic and validity of the assistance strategy derived from the analysis and, after the first year, evidence that the U.S. assistance strategy is being successfully implemented and is effective (e.g., having measurable impact)." (Ibid:p5)

Note that the strategy must not only show progress, but that progress is measurable. Just how "measurable" this must be is somewhat of a mystery in the guidelines, but it does suggest that mission staff might have to actually obtain project relevant, quantitative data which measures progress.

There are also calls for using the analysis of sub-national data as the basis for defining the poor majority and assessing the equity of development outcomes. For example:

> "(the analytic section) should provide... a breakdown of the poverty group into major sub-groups relevant to development and discuss variations in poverty levels among sub-groups, changes in sub-group poverty and the relationship between sub-groups." (Ibid:p8)

Appropriate breakdowns of the poverty group include geographic location, ethnic affiliation, religion, age, sex, educational

level, health status and income. This implies that those preparing a CDSS should have a vast array of sub-national social and economic indicators at their disposal. Similarly, the expectations concerning the assessment of host country progress and commitment reflecting the equity of growth imply the use of sub-national data bases. Equitable growth is to be measured by the increase of agricultural productivity, the restoration of non-productive land, the establishment of protected areas, the reduction of infant mortality, the control of population growth, the promotion of income equality and the lowering of un- and under-employment.(Ibid;p12) In other words, cooperation on the part of the host country means cooperation in Mandated areas (suggesting the Mandate is for more than just the AID missions). Equity is a bit more elusive; other than income equality, how the other indicators measure increased equity, on the face of it, seems rather remote and assumes a great deal about what these changes reflect.

Subsequent telegrams (numbers 309900 and 267977) intended to clarify certain ambiguities, reiterated many of the same directives which involve the use of sub-national data contained in the above citations. Thus, the commitment to improved use of sub-national data appears quite firm.

Whether the designers of the CDSS guidelines intended that ultimately all missions would follow such directives or that each mission would tailor the document to its own situation is somewhat beside the point. Of greater importance is recognizing that even partial compliance with these three documents constitutes a tall order in terms of the use of sub-national data by AID mission staff. It assumes that they have the necessary professional training or experience, that they have access to either appropriate data or reports containing usable analyses and that they have the time, resources (money and hardware) and initiative to do so.

According to individuals in PPC familiar with the current collection of CDSS's, the ability of each mission to meet such assumptions has affected the degree to which a CDSS complies with official guidelines. A notable example is the CDSS of the Philippines which makes extensive use of sub-national data to deliver much of what the directives request. The FY82 CDSS contains a regional analysis of ten indicators of poverty derived from various sources which are used to estimate the relative need of each of the thirteen regions of the country. The mission was frank enough to point out the shortcoming of its own effort:

> "Given the administrative character of the regional classifications, a provincial analysis of need and occupational characteristics of its inhabitants might prove more revealing."
>
> (CDSS for the Philippines,FY82:p22)

In other words, sub-national data disaggregated at a lower level (i.e., the provincial level) was necessary for better planning.

In the CDSS for FY83, the mission did precisely what it had suggested. In light of its own analysis (which relied heavily on the research of others) and in consultation with the Government of the Philippines, it was decided that AID would concentrate its efforts in Western Visayas. The mission examined the relative need of each province in the region and the relative need of the major occupational groups. By crosstabulating such information, the mission was able to answer two simple but important questions: who was in need and where were they located, and they were able to design strategies appropriate for the type of need and in proportion to its extensiveness. Of course the Philippines is something of an exception in that it is relatively "data rich", the mission is well staffed with a number of qualified analysts and it is equipped with a Hewlett Packard mini-computer. But even missions that do not operate under such favorable conditions, such as Tanzania, make an effort

to use sub-national data (e.g., see the CDSS for Tanzania, FY81).

If the increasing use of appropriately disaggregated data is due to some degree to the "push" from the top via policy directives, then it is also in part due to a "pull" from the bottom. Despite what criticism could be made of the quality of the data used in the Philippines and Tanzania CDSS's, it does indicate some interest (I am told considerable interest in the Philippines mission) in greater and better use of appropriate data.

There is a growing recognition among AID staff of the limited utility of national aggregate statistics for the design, implementation, monitoring and evaluation stages of a project. Caroline Bledsoe(1980) offers several convincing examples of the erroneous use of national aggregate statistics, such as income per capita for identifying target groups among the poor. She points out that low income per capita has substantially different meanings in rural as opposed to urban communities and that using national aggregate statistics to identify target groups assumes an unrealistic degree of uniformity among the poor:

> "Knowing the country's average per capita income or caloric consumption is only the first step: we then need to know what the range of variation

is within the country, and among which groups poverty, by whatever measure, is most pronounced." (1980:12) Implicit in this argument is that a better way of determining the specific problems of the poor and the seriousness of their needs is better sub-national data for appropriate units of analysis. This is not to say that sub-national data is a universal cure-all, but insofar as there is an over reliance on national aggregate statistics for purposes they are not wellsuited, greater use of sub-national data would compensate for those shortcomings in the project cycle.

Other Agency documents suggest a similar interest in improved data use. For example, an evaluation team of the Arusha Planning and Village Development Project were of the opinion that Landsat photographs and aerial photography used in conjunction with village surveys produced quick, reliable and relatively inexpensive data. Combined with analysis of existing data, the evaluation team stated that "(T)his combination of methods have been quite efficient in generating the data for integrated regional planning and for setting regional strategies". (1980:16).

Rather persuasive arguments have also been made by outside contractors to the effect that the Agency should become more enlightened about the strengths and weaknesses of sub-national

data in connection with all phases of project management. A notable example is a series of reports concerning data collection and use during the course of a project's history produced by Development Alternatives. In a recent review, DAI(1978) discusses various data gathering techniques and methodologies in terms of cost, timeliness of the data they produce, relevance, accuracy, precision and the inclusiveness of decisionmaking levels. The report also describes a number of projects which illustrate the effectiveness of different methods to contribute to the design, implementation, monitoring and evaluation of projects. Though the general argument is for openmindedness about choosing methods best suited to delivering information appropriate for current project needs, it is clear that from the perspective and experience of the DAI authors, subnational data relevant to project goals could be used much more effectively by AID than it currently is.

In short, it appears that the Agency has embarked on a course which will require it to improve both the quality of data and the use to which it is put if it is to better fulfill the requirements of the Congressional Mandate. Whether such a course was intended or even anticipated is neither here nor there; for the time being, it simply is the case. So far there has been little initial success; some CDSS's such as the Philpprines

show genuine progress in the use of such data, yet others are still "pinpointing" the poor majority and potential AID target groups as constituting 94% of the national population. Criticisms such as Bledsoe's and the need for guidebooks to data management, such as those produced by DAI, further indicate wide variation in the use of data by the Agency as well as vast room for improvement. Therefore, it is worth examining some of the current activities of those units in AID which are most directly involved with the use and management of data. This should provide a rough idea of what the Agency's present capacity is for responding to the demand for more and better analysis.

Part II: The Divisions Most Involved with Data Use and Management

The purpose of this section is to describe the main activities and responsibilities of those divisions which are most directly involved with the Agency's use and management of quantitative data. In terms of the type of information needs each unit meets, the focus of their activities can be summarized as follows:

Unit	Focus of Data Related Activities
S&T/DIU	Primarily national aggregate, secondarily sub-national data
SER/DM	Primarily sub-national data
S&T/POP	More or less equivalent
PPC/E	Sub-national data: primarily project specific
BuCen/SEU	Broad range of sub-national data

The primary responsibility for facilitating data use and for supervising data management operations is divided between two units within AID: S&T/DIU (Development Information Utilization) and SER/DM (Data Management). Both are user-oriented divisions; that is, they provide technical assistance directly to the missions in some cases, arrange for assistance from outside agencies - e.g., through the RSSA (Resource Services Support Agreement) with the Bureau of the Census, or give advice on the capability of outside contractors to perform needed services.

In this sense, they are unlike other divisions within AID because they are not subject or content specific (e.g., agriculture, nutrition, etc.). This is also true of BuCen/SEU (Survey and Evaluation Unit) in that this unit is requested to provide technical assistance on a wide range of development projects. PPC/E (Evaluation) and S&T/POP (Population) provide more specific advice; PPC/E is primarily involved with questions concerning project monitoring and evaluation, whereas S&T/POP guides policy decisions concerning demographic issues. Therefore, of the four data related units within AID (SEU can be considered an outside adjunct to the Agency working under a RSSA administered by S&T/DIU/ESDS), only S&T/DIU and SER/DM have no direct interest in data per se other than in what is necessary to service the needs of AID/Washington and AID missions.

S&T/DIU

The two functions of S&T/DIU that are of interest here are: 1) the assembly, storage and dissemination of data and statistical information and 2) providing or arranging for technical assistance in a broad array of data related activites on request from AID missions and host governments.

One component of the storage - dissemination activity of DIU is the Development Information Service. DIS is an inventory of information known to DIU that pertains to development related activities and issues in countries where AID is currently or has been active. The DIS inventory is intended to help project planners review relevant materials for the project identi-

fication step and thereby assists them in the writing of PIDs and PPs. The extent to which the DIS resources are used is, of course, a decision made by the mission staff or AID/Washington. The comprehensiveness of the DIS is dependent on project reports, evaluations and other pertinent documents being submitted to it by the missions as well as by the central and regional bureau Washington offices. Information submitted to DIU is abstracted and kept on file for future use. Listings of the DIS inventory have been computerized and are available for some countries (e.g., Egypt) on-line (i.e., via computer terminals located in the mission) and can be obtained in hard copy for other countries from DIU in AID/W or from regional DIU centers located overseas.

Whereas the DIS consists primarily of documents based on available information (e.g., statistical analyses), the division of Economic and Social Data Services (ESDS) is primarily involved with the delivery of actual data to AID users. A recent report, "Briefing Paper on the Activites of the Economic and Social Data Services Division" provides a useful summary of its activities.

A major area of activity for ESDS is the assembly, storage and presentation of national aggregate statistics. The division acquires these statistics from various source books, data types and other publications of international agencies and institutes, most

notably FAO, WHO, ILO, UNICEF, UNESCO, IMF and the World Bank. ESDS then processes what it acquires into a number of AID publications consisting primarily of subject specific and country specific compilations intended to make such statistics more accessible to the AID user community. These data are stored in the Economic and Social Data Bank (ESDB) and are made available to AID/Washington users directly. The data bank contains a wide array of sector specific variables (up to 500 different variables for each country) for a thirty year period (1950 to 1980) covering up to 170 countries. A computerized inventory and description of all available data in the ESDB can be obtained from ESDS. The data bank is typically updated biannually and according to the Briefing Paper, is guided by concerns for the data's relevance to Agency needs, reliability and timeliness, and ease of acquisition.

As an adjunct to direct acquisition, ESDS has begun to expand the Agency's access to additional data sources. A recent agreement with Data Resources, Inc. will make a number of commercial economic and financial data bases available to AID users. A RSSA with the International Demographic Data Group of the Bureau of the Census led to the collection of demographic, social and

labor force data broken down by sex for some sixty-nine developing countries. Information on agriculture and food production trends between 1950 and 1980 has also been acquired through a RSSA with the Economics, Statistics and Cooperative services of U.S.D.A.. In short, as data needs arise for national aggregate statistics within the Agency, ESDS anticipates meeting those needs by continuing to expand its access to available data sources collected and computerized by other international agencies. In a similar vein, through a recent contract with Associates, ESDS is attempting to identify a broad range of potentially useful data sets that exist either in the Agency or elsewhere.

The ESDB is used to assist a number of AID activities. One example of the way in which it is used is the ALLDATA listing, which is a comprehensive report of all recent national aggregate statistics for each country in which AID is active. As a statistical profile of the country, ALLDATA is intended to help mission staff in the formulation of their annual CDSS. According to ESDS representatives, ALLDATA is particularly useful for sector analyses and project identification purposes. A recent contract with Creative Associates is to generate a mini-version of ALLDATA, called Economic and Social DATA Abstracts, which is also intended to assist in the CDSS process.

The Statistical Profile Series is also derived from the ESDB and consists of cross-national, sector specific listings of key indicators. Profiles have been generated for education, food and agriculture, population and health, energy and natural resources. For example, the education profile reports on literacy, enrollment, student-teacher ratios, enrollment by age cohort, the efficiency of the education system, educational expenditures and rates of return for sixty-five countries. For some indicators, rates of change are also included.

ESDS also provides data and useful breakdowns (where possible) for users with special needs. For example, ESDS recently assisted PPC/WID with the following project described in PPC/WID's Annual Budget Statement for FY80:

Data on Women (Project #930-0900)

Assist with the compilation of an adequate data base on women in developing countries for planning program development and project design. It will forward the data gathering efforts in LDC's and provide improved statistical information for international agencies, donor governments, host government development planners and scholars. A number of sub-activities have been funded under this project.

In this case, ESDS functioned as an intermediary between PPC/WID and the Bureau of the Census, who actually carried out the data collection activity. The result is a statistical series of demographic data describing the relative composition of males and females in urban-rural, ethnic and work force populations.

The cooperative, intermediary role played by ESDS in this case exemplifies the type of relationship it has with other AID units such as PPC/E in assisting in data management activities related to project evaluation. ESDS also represents AID at international/statistical meetings and coordinates the Agency's data needs with other institutions involved with data collection in LDCs.

Another major area of activity for ESDS is maintaining software packages for users of AID's computer system. The standard data reports of ESDS, for example, can be identified and retrieved through the Macro Economic and Social Information Access System (MESIA). ESDS staff provides the instruction necessary to use the system, which will produce the report as well as perform simple statistical analyses. The division also supports an econometric programming system, a model simulation program and standard statistical packages such as SPSS and SAS. ESDS can answer direct requests for statistical data from its ESDB. For example, when Congressional testimony or public announcements made by AID spokesmen require non-financial/statistical information, ESDS is able to provide it. Similarly, the division supplies economic and social data necessary for the Congressional Presentation as well as other mandatory annual reports in cooperation with AID missions.

It should be apparent that the bulk of ESDS' activity concentrates on macro-level data (i.e., national aggregate statistics). Though a micro (i.e., sub-national) data bank component was originally envisioned as part of ESDS operations, it has never been adequately staffed or funded. Nonetheless, through contracts with the Research Triangle Institute, ESDS has attempted to identify sub-national data sets potentially useful to AID. ESDS has also attempted to make a limited number of such data sets available to AID users by improving their documentation and usability through a contract with Frank Cancian of the University of California. However, these efforts barely scratch the surface of a potentially useful area of data management. This is not a criticism of ESDS efforts. In light of its macro-level data responsibilities, the constraints of time and manpower cutbacks (from a staff of twelve to six in the past year and a half), it is remarkable they have accomplished what they have.

ESDS' principal involvement with sub-national data is through its administration of AID's RSSA with the Survey and Evaluation Unit of the Bureau of the Census. The Annual Report for Fiscal Year 1980 of the Survey and Evaluation Unit (SEU) and interviews with representatives of SEU clearly reflect AID's reliance if not dependence on SEU. SEU provides two

general types of assistance to AID: 1)training and improving the institutional capacity of host countries to collect and analyze data about themselves for planning purposes and 2) direct technical assistance and involvement in data collection efforts which are part of AID funded projects. For example, in FY80 SEU helped write a project paper for the Gambia River Basin Development Project to design an institution capable of collecting data to monitor and evaluate project activity. In Liberia it helped assess current problems of data collection and processing in an existing statistical bureau. In terms of direct technical assistance, SEU covers the entire gamut of quantitative research. It assists in: 1) evaluating existing data and identifying additional data needs, 2) selecting and constructing appropriate survey frames and sampling designs, 3) formulating questionnaires, pre-testing and providing materials and training for interviewers, 4) cleaning, processing and analyzing data, 5) statistical presentation, and 6) hardware and software selection including teaching necessary programming skills. In its activities, SEU works with AID mission staff, host country counterparts and outside contractors. SEU normally becomes involved in AID projects when AID missions or host countries request their assistance. Again, ESDS serves as the intermediary in coordinating the delivery of these services.

It was stressed during my interview with SEU representatives that the strong points of the unit include considerable experience in data collection in LDCs, sensitivity to the contingencies of field conditions and cultural settings, and working closely with host country counterparts as an element in developing the country's statistical survey capabilities. One is left with the impression that the unit considers itself to be staffed by competent individuals with considerable expertise who can be of great assistance to AID if the Agency intends to improve its data collection, use and management techniques. Reactions by AID personnel to this claim will be presented in the following sections.

SER/DM

Like S&T/DIU, the Office of Data Management, services the needs of AID/Washington and AID mission staff. The responsibilities of SER/DM are to:

> "...provide policy direction for and centralized services in the areas of (a) automated systems required by AID Bureaus, Offices and overseas Missions; (b) loan and grant projects which have a data processing component; and (c) technical assistance in computer sciences to AID overseas Missions as well as to LDC's" (Handbook 17: 18E-1)

In other words, SER/DM is an administrative center as well as a repository of sorts for data management expertise, especially in the area of computer hardware.

SER/DM's responsibility for hardware maintenance and development includes support of the AID/Washington central computer system, word processors, telecommunications and all other automated data processing equipment. In addition to its advisory and acquisition functions, DM is also charged with maintaining and developing software packages appropriate for the needs of the AID user community. In short, SER/DM serves as the Agency's computer center and as a clearinghouse through which requests for automated equipment must pass. Such requests range from word processors by regional bureaus to mini-computers by AID missions.

The current program for installing Wang mini-computers in AID missions illustrates SER/DM's hardware related activities. The system consists of the central mini-computer, disk drives (machines for reading electronically stored information from small magnetic surfaced disks), CRTs (video display screens with an integral keyboard) and printers. The package with a one year service contract costs approximately $120,000 and has been installed in AID missions in Egypt and Honduras. Installation is also planned in AID missions in the Philippines

(replacing its current Hewlett Packard system), Kenya, Guatamala and Indonesia. At a much more exploratory stage, DM plans to review the use of a microcomputer after six months of operation in the AID mission in Santo Domingo for its potential use and distribution to other AID missions.

A second major responsibility of SER/DM is software development; that is, producing programs for use on available and new hardware, including programs for central computing operations. Of particular interest to SER/DM is the development of transferable programs not only within AID/Washington, but also between AID missions. For example, with the assistance of SER/DM personnel, the AID mission in Honduras has been developing some basic SPSS routines for mini-computers that will be applicable to comparable needs of other missions.

It should be mentioned that the Honduras project exemplifies SER/DM's provision of qualified personnel on TDYs to directly assist in software and hardware related matters to the missions. Similarly, SER/DM has been working on a uniform mission accounting system that will be usable on the Wang mini-computers as they are installed.

According to one individual contacted about the activities of SER/DM who is long familiar with the policies and responsibilities of the unit, a substantial proportion (as much as

sixty percent) of the services SER/DM oversees is provided by outside contractors. It also monitors other contracts with individuals, consulting firms, PASAs and RSSAs that involve programming, hardware or statistical analysis. Second, SER/DM assesses and makes appropriate recommendations for all PIO/Ts which contain funds for programming assistance or computer hardware. Their review includes evaluating existing hardware available to the project, assessing the need for programming skills, determining what additional or outside assistance is necessary, or suggesting possible alternatives to what is proposed. SER/DM also provides some analytic assistance to both AID/Washington and mission staff with special needs, such as econometric packages with particular linear modelling routines. It also does a limited amount of analytic work on request, given sufficient manpower at the time the request is made. For example, one project had run out of funds for data analysis and SER/DM then helped complete the analysis.

S&T/POP

In contrast to S&T/DIU, SER/DM, and BuCen/SEU which provide generalized technical assistance and/or a broad range of information to AID users, the data related activities of S&T/POP are restricted specifically to demographic issues. As suggested

at the outset, S&T/POP deals with both national aggregate and sub-national data. In regard to its national aggregate data sources, S&T/POP does not use the data contained in the ESDB. Rather it provides data on demographic variables to ESDS. S&T/POP currently obtains its data from eighteen to twenty World Fertility Survey tapes, two or three additional contraception survey tapes plus assorted other data tapes purchased from outside contractors. Recently, S&T/POP has been decreasing its direct involvement with contractors and shifting to awarding grants through the Population Research Council in N.Y.C., so far obligating $2.5 million for projects involving data collection which will be useful to the Agency's needs and interests.

S&T/POP is involved with the design of data collection efforts. For example, a particular concern of the unit is to determine which combination of family planning services are most effective in a given country or a sub-region of it. They are also interested in what side-effects result from particular contraceptive practices. Hence, their selection or recommendation of the best mix of family planning services is based on both its effectiveness (i.e., acceptance and use) and on what deleterious effects might also be involved. This type of research often requires using complex research designs to show which services were most effective over time. Such work

makes it necessary for S&T/POP and its contractors to have the skills to choose among alternative research designs and assess which will produce the most accurate data. S&T/POP attempts to capitalize on available data as much as possible. Contractors are again used to evaluate both the quality and the utility of available data a host country currently possesses, if any, and then determine what additional data is needed for the project.

In cooperation with ESDS, S&T/POP also serves as the Agency's liaison with the U.N. concerning the National Household Survey Capability Program (NHSCP). The objective of the NHSCP is to help LDCs develop their institutional capacity to provide government bureaus with a continuous flow of timely information necessary for planning and policy decisions. The survey is supposed to be adaptable to host country needs and is to be cost efficient. Data will be collected on living conditions pertaining to the quality of life (e.g., housing, health, education), demographic characteristics (e.g., fertility, mortality, family size), productive activities (e.g., agricultural production, household member employment and unemployment), and cultural patterns (e.g. authority within the family, the impact of belief systems on the perceptions of change and inno-

vation). The NHSCP is a cooperative U.N. project assisted by UNDP, UNFPA, UNICEF, UNESCO and others. It is envisioned that the NHSCP will provide data useful not only to the host country but also to participating international agencies. In short, the argument is made that the NHSCP is consistent with AID objectives, but at this time, the NHSCP is still just a proposition. Sufficient funding has not been obtained from donor sources to actually implement the program.

As one demographer in S&T/POP pointed out, the unit is probably the one most involved with data collection and analysis in the entire Agency. For example, it does conduct a certain amount of data analysis on its own, but outside contractors are also used. There have been some attempts made at linking socio-economic data to demographic variables, but it has only been done on a small scale and as yet, has been unsuccessful. But more important is the function of S&T/POP as an in-house repository of information and expertise on one of the mandated topics for AID. As such, it gives advice as well as actual supporting evidence on a broad spectrum of issues involved with population growth and national development, ranging from comparative demographic trends to project specific questions (e.g. which mix of family planning services will be most effective).

PPC/E

An interesting observation made by an individual in S&T/DIU during the course of our interview was that a sudden increase in the interest for project relevant data in recent years stems from the decision to evaluate projects and in some cases, to attempt to actually measure change attributable to the intervention of the project. As this person observed, this increased concern is a case of the tail that wags the dog. Rather than there being a recognition on the part of the Agency that better data was needed to improve the quality of its planning, it was the realization that project effectiveness would have to be demonstrated which led to efforts to obtain relevant data.

Regardless of how the interest has come about, PPC/E fills an important gap in the in-house capabilities of the Agency by providing assistance and advice on research design and data collection techniques that will generate the necessary information for project monitoring and evaluation. In this sense, PPC/E is like S&T/DIU and SER/DM in that it is oriented toward the user community - AID Bureaus and AID missions. An important activity of PPC/E/PES is in taking the initiative in improving both the quality and the use of sub-national, project relevant data for evaluation purposes. For example, the division is currently involved in preparing a handbook containing

guidelines for project managers who need assistance in collecting pertinent data for evaluation of their projects. Preceding manuals prepared for the Agency - e.g., "An Overview of Economic and Data Analysis Techniques for Project Design and Evaluation" by Samuel Daines and "Manager's Guide to Data Collection" by Molly Hageboeck, et al.- serve as a useful foundation for introducing AID personnel to the logic and methods of social science, but they are of limited utility in field situations and for dealing with special problems associated with gathering data for project evaluation. It was pointed out by representatives of PPC/E/PES that one way to improve evaluations and in time raise the quality of Agency reports is to educate project managers about the various options for data collection available to them. A major decision they must make is how valid and reliable the data must be since the tradeoff for high quality data is higher costs to collect it (both in terms of time and absolute expense). Because the requirements are different for each project, blanket guidelines are not as useful as suggestions about how to tailor data for evaluation to the specific circumstances of the project are. PPC/E/PES is making a concerted effort in this area by developing generic indicators useful for the broad range of AID projects and which can be adapted to the particular needs of a specific project.

The Survey and Evaluation Unit of BuCen is also heavily involved with the evaluation side of development projects and provides assistance to AID, as described earlier. PPC/E represents the official commitment of the Agency to the evaluation of its projects. However, what the standards are or even should be for acceptable evaluations of a project, and that includes the quality of the data used, still seems a matter of debate. Though in principle those interviewed in PPC/E could agree with the idea that better data should be used, they found that it was hard enough to get AID project designers or managers to read existing evaluation reports. Therefore, to expect even greater use of data would require a series of actions beginning with a firmer and more consistent initiative from the administrative level combined with personal experiences of those in the missions where data had facilitated their activites as opposed to hindering them, and in some cases, even coercion in the form of stringent CDSS reviews where proposed strategies were rejected because of insufficient analytic evidence in their support.

In short, PPC/E has taken the lead in promoting greater and better use of sub-national data. Of course, AID is under considerable pressure to improve its assessment of project effective-

ness. In turn, this pressure, or more accurately, demand accounts for a large part of the initiative and leverage evident in PPC/E's operations. But Congress aside, the efforts of PPC/E, if successful, could have considerable and even unanticipated importance for the Agency. Simply by giving more careful thought to what indicators would be significant signs of progress during the course of the project, and what must occur if the project is to be evaluated not only favorably, but with some degree of accuracy, should lead to more carefully designed projects and ones from which valuable lessons can be learned. In other words, by integrating data collection designs for monitoring and evaluation purposes, project managers should obtain useful information which might help them avoid making bad decisions after the project is implemented.

This overview of AID/Washington's data related activities provides a general picture of how the Agency is attempting to meet its information needs. Together the units and their activities constitute an important component of AID's information delivery system. One way to summarize their activities is to consider who are the users of the data, services, guidance, etc. that they provide, as follows:

Unit	USERS AID/W	Missions	LDC	Main Focus of Data Related Activities
S&T/DIU	secondary	primary		Nat. Aggregate
SER/DM	(primary)	(primary)		Sub-national
BuCen/SEU		primary	secondary	Sub-national
PPC/E	secondary	primary		Sub-national
S&T/POP	(secondary)	primary	(secondary)	Nat. Agg. & Sub-national

The missions and their projects are naturally the main users of each unit's activities, since units are, after all, central support divisions. Ranking users, however, is more difficult and, in lieu of hard evidence, the designation of primary and secondary users should be considered as impressionistic and tentative. With that caveat in mind, it is, nonetheless, interesting to note that in terms of providing data to the missions (which eliminates SER/DM), the two specialized units - PPC/E and S&T/POP - are the only ones which focus on the delivery of sub-national data.

This overview also creates the impression that the responsibilities of these units can be formally delineated. For the most part, one might live with the notion that each performs its own unique set of tasks, thus servicing a particular information

need of AID. However, the division of responsibility and areas of activity are not as disentangled and compartmentalized as it might first appear. In fact, the following sections will suggest that not only are there conflicting interests which produce disagreements over who has authority over what, but that such conflicts reflect a lack of coordination among these units, which are supposed to function jointly as an information system.

Part III: User Community Views and the Coordination of Data Services

The purpose of this section is to convey as accurately as possible the views of those representing the AID user community concerning available information services and data management in general. It will also identify in a preliminary way what appear to be important problems affecting the delivery of services and resources necessary for efficient data access, use and management. The primary constraints to a more efficient operation of the existing data use and management system are 1) staffing, 2) a lack of coordination between units, and 3) conflicting interests between key divisions due to the organization and distribution of responsibility for data management and systems development among them.

The preceding description of AID/Washington's information delivery system would suggest that between these various units, advice, assistance and data for most major needs are available to AID/Washington and AID missions. Though no single unit might be able to deliver the service directly, they have the capacity to arrange for the appropriate technical assistance through the RSSA with BuCen or with outside contractors. This suggests a fairly complete system is already in place and operating; however, when the user community is consulted, information about their own activities and their opinions about the present system of

data access and management paints a somewhat different picture.

A number of individuals in S&T, PPC and the regional bureaus were asked to provide a "user's" opinion concerning the currently available services and facilities for data use and general data management. No one apparently felt compelled to extoll the virtues of the present system. Particular activities and certain individuals were pointed out as exceptionally useful, but neither S&T/DIU nor SER/DM as a whole were described so favorably. In most cases, there was a starting assumption that the whole question of improving data use in the Agency was an uphill battle (on a very steep hill) in light of AID's current staff reductions and freeze on hiring. But moving beyond the realities of the moment, it was conveyed to me that the general orientation of AID toward the use of data was glaringly inadequate and that the organization of data and its dissemination to AID bureaus and missions could be vastly improved, setting aside again the financial and manpower restraints to doing so under the current allocation of the Agency's budget.

A case example of the type of problems AID staff cited would be a useful starting point. In an interview with an individual from one of the regional bureaus, I learned of a myriad number of interrelated problems which made the data

systems of AID virtually unusable to this person and the division as well. In response to the suggestion that improved collection of sub-national data might be one way of improving project planning, the director of Rural Development in this regional bureau explained that the division can not use efficiently what data is already summarized in reports, let alone use more of it. According to this individual, it was extremely difficult to identify and keep track of potentially important information. First, those in the division did not really know where to begin looking. When useful information was identified in the DIS, there was no one in the unit who could access it. When assistance was obtained from DIU, he found that their personnel could use the system very effectively, but this was no solution to his information needs in the long run. Despite the claims of ESDS - that it is relative easy to learn to use available information retrieval systems - this person stressed that the people who are to use the system are unfamiliar with it. They have just returned from a number of years overseas and even if they had some computer skills, they have forgotten what they once knew. Moreover, the system has changed since they last used it, yet they must begin to function effectively in their support activities immediately. When he had requested certain information, what he received was in a form he had not requested

and he did not have the time nor the skills to manipulate into a form he could use. He had requested more automated equipment and someone to operate it, but to his frustration, SER/DM had for some reason not approved the acquisition. He subsequently engaged a systems analyst to basically develop a computerized filing and document retrieval system specifically for the division's needs to be stored on their word processor. Each project was coded for location and type as a basic referent. As reports of project activity are received in the office, pertinent information, such as financial expenditures and expected completion dates, are entered into the file for the project. The periodic reviews of all projects could be generated by location or type of project, for example, to monitor the progress of all ongoing projects. In talking to the systems analyst, the same sense of intense frustration and dismay over the sorry state of affairs concerning information flow through the division was impressed upon me.

One of the major purposes of this review is to point out the constraints the AID/Washington bureaus face with regard to more effective handling of quantitative information. This example brings to light what I could readily believe is a common and serious constraint (to put it mildly) faced by other regional bureaus. In fact, another individual in AFR/DR described

a similar situation, though not in such severe terms. In general, this individual finds that information reaches those who need it too slowly. For example, there may be only one week to make a decision and even after identifying useful documents, it may take six weeks to obtain them. Based on the recent review of the FY 1983 budget for S&T/DIU, I suspect that other regional bureaus confront much the same problem in that they too have found it necessary to develop their own in-house informations systems.

This situation calls into question who actually uses the ESDB in Washington. Do, in fact, those who have a need for national aggregate statistics rely on the ESDB and if so, to what degree? The answers tended to be uniformly negative and the reasons for not using the ESDB concerned the timeliness and comprehensiveness of the data.

One example of the utility of the ESDB to AID/Washington comes from an interview with an economist in PPC/EA. I was told beforehand that this individual uses the data from the ESDB for macro-economic analyses; however, I was informed by this person that the data in the bank are too out of date for the office's purposes. Instead, more timely data are obtained from sources outside of AID, in this case, the World Bank. When asked about the utility of the ESDB data to missions, this individual and

others interviewed in PPC and S&T were of the impression that from their experiences, the mission staff would resort to the same sources that ESDS used in assembling the macro data bank. Similarly, the demographer in S&T/POP who informed me that their unit was probably the most heavily involved with data collection and analysis, reported that the unit did not actually use the ESDB again because of timeliness; rather, they provide data to it for demographic variables.

In addition to the problem of timeliness, comprehensiveness of available data seemed to be a second problematic area. An individual involved with policy formulation in S&T/POP explained that since 1979, their unit had been involved in twenty-two contracts for data collection, indicating that they could not rely on the ESDB for their data needs. Two individuals knowledgable about data collection activities in PPC/E explained that they had recently initiated a project to identify existing data sources pertinent to evaluation, which implied that they could not rely on ESDS resources. In a similar vein, despite the claim that ESDS coordinates Agency activities with data collection efforts by other donors and international agencies, it is S&T/POP who is most directly involved in representing AID's interest in the United Nations National Household Survey Capability Programme, which if successful, could be very helpful

to LDCs and to international development organizations.

One conclusion that might be drawn from the implication that the ESDB contains data which is too out of date or too limited is that ESDS does not adequately meet the information needs of AID/Washington, but that, I think, would be an unfair judgment at this point. First, it should be pointed out that if that is true, then it may not be the fault of the ESDS staff, but rather, a reflection of the recent reduction in personnel from twelve to six professionals in the past year and a half. Second, ESDS considers the missions and not AID/Washington to be its primary client. Keep in mind that this report is based on the observations of AID/Washington staff and not mission personnel. Therefore, assuming that the information in the ESDB is as useful to the missions as ESDS maintains (and some interviewed challenged this claim) and that it takes the entire staff to deliver these services, then it is remarkable that they do as well as they do. If ESDS is expected to be of greater assistance to AID/Washington, then its current limited utility is probably best considered the fault of administrative decisions to reduce its staff. All of this, of course, rests on the assumptions just cited. But it is safe to say that c tain divisions have specialized needs and cannot rely on the g ral data services of ESDS to meet them. A good example is data

S&T/POP needs to determine which mix of family planning services is most effective. They can hardly rely on the ESDB for that. It is probably the case that comparable conditions exist in other units where their own special needs surpass the capacity or purpose of ESDS.

On the other hand, it is somewhat puzzling that so much emphasis is given to national aggregate statistics by S&T/DIU. Anyone familiar with such data would assume there is a considerable interest in cross-national analysis. The ESDB constitutes a substantial file of comparative social and economic indicators many of which are available across time. Such a data set is perfect for longitudinal studies of national aggregate rates of change, sectoral rates of change, regional variations in rates of change and other permutations on the same theme. However, the only consistent use of time series data is apparently in the increasingly sophisticated reports to Congress S&T/DIU helps prepare which contain information on comparative rates of change. It was astounding to learn that there is little interest in more serious analyses. Instead, the utility of the data is couched in terms of its relevance to mission planning, such as contained in the CDSS (in fact, this is the justification given for the recent contract with Creative Associates to produce a mini-version of the ALLDATA report). That seems all the

more remarkable given just how limited the utility of such statistics are (if not simply misleading) to project planning, implementation, monitoring and evaluation where project specific data is of much greater relevance. At the very least, this suggests examining more closely the reasoning behind the Agency's commitment to national aggregate statistics, especially since it appears to be at the expense of developing sub-national data resources. It might be that the ESDB is being perpetuated on the needs of the Agency ten years ago rather than on its current information needs.

Responses to questions about the services of SER/DM also ranged from complimentary to critical. On the positive end, one example of the programming assistance SER/DM provided to PPC/EA was described as quite satisfactory. It is reasonable to assume that this is generally true in light of the fact that no one interviewed ever mentioned any problems in this regard. Also in PPC and S&T, there was general praise for certain staffers (one in particular) for being especially helpful in matters concerning software problems and statistical analysis. It is also worth noting that those with excellent access to computer facilities, such as terminals located in their offices, apparently found the system to be quite adequate. And it is

also worth repeating SER/DM's assistance to the Honduras mission in developing SPSS routines for use on their mini-computer. The individual I talked to in the mission explained that the project was progressing and that DM had been of assistance throughout its development. How representative this is in general of SER/DM's activities and how they are viewed in the missions can not be suggested, but this is at least one positive example.

But in the interview process, SER/DM did not escape unscathed. Unlike information pertaining to ESDS which pointed to its obvious limitations as much as questioned its emphasis of macro-level data, critical comments made about SER/DM were rather blunt. Of course there are any number of ways to discount criticisms obtained in the fashion these were; perhaps they were somehow elicited, perhaps they represent just a minority view, and so forth. But in the context of the interview, they appeared to contain some element of truth. Three different sources, who for reasons of confidentiality shall not be identified other than to say that each was very familiar with SER/DM activities and capabilities, criticized the unit. On later inspection, the criticisms these people made seemed to reflect the same problem. That is, SER/DM is perceived as overly concerned with influencing, if not controlling the data related activities

of AID. In other words, SER/DM was seen as imposing its own view on matters rather than responding to the Agency's information needs. In two cases, SER/DM was described as a general nuisance whose turf considerations interfered with improving the Agency's use of data. In particular. specific examples were cited where their attempts to influence software and hardware decisions were more of an impediment than help. Another questioned their ability to provide analytic assistance and even whether they should do so. Another criticism focused on the overriding concern of the office to develop sophisticated software with the rationale that it must be transferable at the expense of other services it could provide immediately and which were also needed.

These are all rather cryptic remarks, but sufficient for the purpose at hand. I do not think these observations should be discounted as normal bureaucratic carping and backstabbing. Those interviewed had good reason to make such remarks (especially when they were made to a total stranger who might use them for some other end than the announced purpose of the interview. Worse yet, I was employed by PPC and who knows what ulterior motives might lurk in that connection). What I think such remarks point to is an underlying perception of at least an im-

plicit policy within SER/DM of maintaining control over data related matters to a degree not strictly set forth in the bureau's responsibilities. At the very least, this suggests that a closer examination of the division of responsibilities for data management and related issues be given more consideration. It would be useful to clarify how overlapping interests and responsibilities should be handled or perhaps develop stricter boundaries of responsibility and authority among the bureaus and divisions.

It is also important to note that those who had the least to say about the data delivery systems in the Agency were those who were least dependent on them for data and other information. The economist in PPC/EA serves as a perfect contrast to the regional division director. The economist gets necessary, timely

data outside the Agency, has access to a computer terminal in the office and apparently has the time and assistance to use it, and has programming skills so that he is not dependent on others for data analysis. Consequently, his greatest concern was the quality of measurement in the data he uses, which stands in stark contrast to the situation in the regional bureau.

Part of the problem seems to stem from the coordination of data management activities. S&T/DIU can strive to keep its information system and data bank as timely and complete as possible and devise many wondrous programs and formats for its presentation, but if it is inaccessible to those who are not technically skilled enough to use it, then its utility is undermined. And if the claim is made that help is available, the system is easy to use and so forth, then that message certainly has not reached the regional bureaus or, conversely, the system is not that easy to use, etc. Similarly, SER/DM may envision the ideal automated data processing system for the Agency, but something needs to be done to make the information systems of S&T/DIU accessible to those in the regional bureaus now. In short, the two components in information delivery do not appear to be especially well coordinated.

As any employee of a large bureaucracy like AID knows, the

basis of coordination is cooperation. Therefore, a matter that I think is equally important to the effective delivery of information to the AID user community is the competition between units concerning leadership in data use and management. An important factor which is exacerbating the turf issues is the rapidly developing micro-chip technology that has produced the current generation of computer hardware and related peripheral equipment. A case in point is a Bureau of Census project which is to examine the feasibility of microcomputers (desk top equipment that can be purchased for anywhere from $3000 to $10,000 depending on accessories and memory capacity). The question is whether they might be a means of helping LDCs obtain sufficient data processing capacity for their current and future needs. It involves developing the appropriate software, in this case, CENTS and the latest version, COCENTS IV. These are programs that were designed for the tabulation of census data and work very quickly in terms of machine time required for data processing. The PIO/T has been written and it is my understanding that AID has committed approximately $200,000 to BuCen to begin the project in FY82.

At first glance, this seems a very worthy and potentially useful project that is also consistent with other AID development strategies; and it is. But with some reflection, it should

also be apparent that such a project could fall under the auspices of SER/DM. With some additional questioning after my initial interview with representatives of SER/DM, I learned that indeed, such a project fits within the unit's responsibilities. Furthermore, no small amount of resentment was created by turning to an outside contractor (which, in fact, is how BuCen operates - claims of being a "sister" agency to the contrary - and is a source of irritation and suspicion expressed by others within AID). Consequently, BuCen will acquire experience that would have been very useful to SER/DM. Nor are any confidences betrayed if it is known that BuCen does not hold the most favorable of opinions about the capacities of SER/DM.

All of this begins to sound like a bunch of school children dickering about who is going to use the baseball field this afternoon. My point in presenting this business is not to spread vile gossip, cause embarrassment or aggravate already strained relations. Rather, this situation illustrates a fundamental problem in the division of labor concerning data use and data management. That the problem is not one of personalities or intrinsic to bureaucracies is clear. Rather, it reiterates the earlier suggestion that there are organizational problems in this area of Agency activity and that careful attention should be given to it soon.

At the outset of this report the argument was made that because of AID's diversity of activities, the Agency's various information needs could only be adequately met if it had access to the appropriate data. The assumption was made that a system of information delivery would match specific needs with the necessary data. The preceding suggests that the system apparently does not work as well as it should; that is, certain information needs are not being adequately met.

A lack of coordination between data related units seems to be one part of the problem. But this is not surprising given that there is no Agency wide information policy that attempts to provide such coordination. As a result, one learns of having to wait weeks for important information as though it has to carried long distances by foot. If this analogy sounds absurd, then the example is even more so in an age of instantaneous electronic communication. In short, the Agency needs to set its house in order. It needs to recognize the utility of matching information needs to appropriate level data and to make a genuine commitment to doing so. It should examine its current and upcoming information needs and then decide how much it should invest in each type of data (e.g., is it currently over-invested in national aggregate statistics in relation to its current needs?) And then it should clarify for all involved what their role will

be in delivering this data. Until that time, simply calling for extensive data use will not produce very satisfactory results.

Part IV: Potential Areas for Improved Use of Sub-national Data

During the course of each interview, the question arose, or was posed, about improving the Agency's use of sub-national data and the related issue of developing the institutional capacity of LDCs to collect and analyze their own sub-national data. There were several who considered expanded use of sub-national data by AID unrealistic in light of the difficulties they currently encounter in accessing and finding time to use existing data sources (which for the most part are national aggregate statistics). The majority of those interviewed, however, responded with considerable interest and all in general considered increasing the capacity for data analysis by host countries as important and consistent with the overall mission of the Agency.

This section of the report is based on the comments of those interviewed concerning the Agency's current and future use of sub-national data. It presents ideas which a number of individuals raised as well as their reactions to certain alternative courses the Agency could follow and issues they deemed particularly important to choosing among them. If anything, this section shows that there is a community of interested AID/Washington personnel who would like to see better use made of appropriate level data.

One source of sub-national data the Agency could make better use of is disaggregated, host country census data. As it was explained to me during the interview with ESDS representatives, it was envisioned that the CDSS would encourage the use of such data; however, that in general has not come to pass. It was also the view of several in S&T and PPC that getting access to disaggregated census data was in some countries difficult because of host country policies about the release and use of such data. Of course, in some countries, there is no census data for certain sectors. One individual in S&T/ DP expressed the opinion that AID should sponsor the comprehensive collection of non-census indicators on a periodic basis as a means for beginning to fill important information gaps. Recognizing the expense of such an undertaking, this individual offered the counterargument that such an effort would be consistent with AID's interest in improving the statistical and planning capacity of LDCs. This individual was of the opinion that what would justify the substantial start-up costs was that in the long run, it is ultimately more expensive to operate without sufficient information because ignorance of conditions leads to mis-

guided (or unguided) policies and projects which waste money and can do more harm than good. In fact, the Agency is involved to a limited degree in some similar activities. The U.N. National Household Survey Capability Program (NHSCP) is one example. However, that program has yet to get beyond the proposal stage.

Though not on as grand a scale as the NHSCP, AID currently funds projects to develop the institutional capacity of developing countries to collect and analyze data. For example, the Sahel Development Program has committed approximately $2,000,000 to the Government of the Republic of Niger to develop over a three year period a planning bureau capable of monitoring and evaluating projects as well as providing information to other technical bureaus in the government. In time, if such efforts are successful, statistical bureaus and institutes will have the capacity to conduct a range of routine, data collection projects themselves. For AID's current involvement, however, is concentrated on limited data objectives and on capacity development.

The Survey and Evaluation Unit of BuCen

One means of improving the use of sub-national data within the Agency would be greater utilization of and reliance on the Bureau of the Census' Survey and Evaluation Unit. As described in the first section, SEU already provides a great deal of technical assistance to AID. Those I interviewed in the SEU strongly believed that AID did not make adequate use of project relevant data nor was it sufficiently committed to improving the quality of data collected or expanding the use of sub-national data. In other words, they felt the Agency had a long way to go before it was adequately involved with the collection of project relevant data and making good use of such data. In this regard, SEU felt they filled an important niche in the cycle of project activity that private and academic contractors did not fill nor were interested in filling. In particular, they were far more disposed to training host country counterparts as a normal part of their role in AID projects than were other contractors. However, despite their considerable experience

in data collection and data analysis in developing countries, they felt that they were too often called in for a "mopping up" operation - i.e., trying to make the most that was possible from seriously flawed data. If they had been brought into the project at a much earlier time, such as in the initial design stage, many "bad" decisions could have been averted. Admittedly, in some cases they had been asked for assistance at an early point in the project, but in general, their position was that this was typically not the case and that AID could make much better use of their skills.

The SEU representative could envision expanding their current time commitment to AID. If the Agency decided to improve its data collection and analysis efforts, SEU certainly thought it could help put the planning activities of AID on a much firmer analytical footing. They could conceivably double their workload especially if a long term standing relation with AID could be worked out. In particular, they could make available short term technical assistance groups who could divide their work year among AID missions which were short-handed or lacked personnel with sufficient analytical skills. The idea would be to improve the empirical basis of the mission's CDSS and project design work. With some missions, the BuCen team would virtually have to start from scratch, first assessing the needs

of the mission and then determining what data was available, its quality, utility, accessibility, etc. Next a stratgey for obtaining additional data would be developed. Each successive visit would build on what had been established earlier in such a way that a usable pool of data would become available to the mission. By building such a data base and making it available to the host country as well, the mission information base would not only be improved, but the entire activity could become a more cooperative effort.

As potentially helpful as BuCen might envision itself to AID, others interviewed both in AID and outside of the Agency made some strong criticisms of their past activities and had serious reservations about expanding their role in AID activities. The heaviest criticism of BuCen was made by a U.S.D.A. group equally as familiar with AID's data collection and management capabilities, and by representatives of SER/DM. In general, criticism of BuCen focused on data collection designs which were overly sophisticated, expensive, time consuming and were too much the product of statistical ideals. BuCen, on the other hand, claimed that they were in fact very sensitive to the contingencies of data collection in developing countries, perhaps more so than any other group engaged in similar activities. Moreover, as it was succinctly stated

during the interview, simply because you are in the field does not mean you do not need statistical standards. The charge was also made by the U.S.D.A. group that BuCen became excessively elaborate in its data analysis, missing the point of who was the ultimate consumer of the information. BuCen would, I suppose, retort that their commitment to training host country nationals as a part of developing the country's statistical capabilities made them very much attuned to the users of data collection efforts. Despite BuCen's portrayal of itself as AID's "sister" agency, the charge was made by those both inside and outside of the Agency that BuCen has operated in a heavy-handed manner in disregarding the previous advice given by others equally competent to provide technical assistance. One example substantiating this charge was a disasterous chain of events in the Cameroons where BuCen's final intervention after much advice had already been given proved too much for government officials who decided to cancel the entire project.

Once again there is evidence of competing and conflicting interests resulting in charges and countercharges that are simply non-productive and no way to conduct Agency activities. Such conflicting views arose in other interviews; for example, one individual in AFR/DR cited both negative and positive cases concerning BuCen's activities. Needless to say, both views are

quite credible to a neutral observer; however, the best intrepretation I heard came from an individual interviewed in PPC/E. What must be distangled here are the two main functions of BuCen. Its teaching and training activities frequently conducted in a workshop setting involving quantitative, census oriented skills are never at issue. It is their direct participation in data collection, analysis and so forth where conflicts arise. This individual's opinion was that BuCen uses fairly rigorous standards, does a reliable, complete job, performs good secondary analyses of data when given adequate guidance, and is expensive. On the the other hand, the real question was the trade-off between the reliability and validity of the data BuCen collects versus the cost and necessity of collecting high quality data through other means. In other words, though BuCen provides necessary assistance to AID, their involvement always is a matter of cost efficiency for the project. That does not really resolve many of the preceding comments made about BuCen, but it is sufficient to say at this point that the question of expanding the role of BuCen in AID's data related activities involves a number of issues which deserve careful scrutiny before any decision is made. For example, would it be advantageous to AID to increase its dependence on BuCen or should it develop its own capacities if possible? On the other hand, if BuCen's

role is expanded, shall it be limited to just data collection and analysis or should it also include hardware and software advice, and if the latter, how should this be coordinated with the responsibilities of SER/DM? On the other hand, if operational funds do not allow building up an in-house capability in the Agency to do some of the tasks that SEU currently does for it, AID might have no other alternative than to use additional project funds to expand the role of SEU in its activities.

Contractor Collected Data

In light of the current limitation of ESDS to macro level data, a potential area of improvement is for AID to compile a comparable micro data bank. One source of sub-national data could be that collected by contractors for AID. When this possibility was posed during the course of an interview, the range of responses indicated that this was another

topic which the Agency should consider more carefully than it has. In particular, its handling of contractor collected data needs should be reviewed because in every bureau, at least one individual stated that AID was mismanaging this part of project activity. From a variety of sources a common tale was recounted about Project X where the contractor collected survey data, used the data for a final project report, but never delivered a copy of the data with necessary documentation to the AID mission or to the appropriate host country bureau. When on rare occasions a data set was delivered, as likely as not only partial if any supporting material (e.g., codebooks, a copy of the questionaire, recording information) was also forwarded. Those in SER/DM, BuCen, U.S.D.A., S&T/DIU all mentioned examples where completely unlabelled tapes were presented to them with the expectation that they would somehow divine what data was stored on them. (To the uninitiated: without certain basic information concerning how the tape was produced, accessing the data sets, let alone figuring out what the data was is nothing short of a grand mystery. It can be done, but it is totally absurd to have to do so) Others told tales of academic contractors who relied on graduate students to handle the mechanics of data analysis (they were, after all, professors too busy to

be concerned with such trivial matters). From my own experience at a major research university, many if not most of those I worked for on such projects could not use the computer if their lives depended on it, let alone understand the mechanics of data management. Graduate students, in turn, under the contingencies of their own situation, often possessed the only copy of documentation for the data set, or worse yet, carried the information around in their heads. In time, students graduate or otherwise disappear from the university and in some cases, so does the documentation for a data set which AID paid for and could be considered government property. As a result, even when asked, some academic contractors simply could not produce a usable data set. Others, out of a sense of academic proprietary rights, simply refuse to deliver a copy of the data or the documentation. One professor at the University of Michigan refused to release the data because he felt that it was his responsibility to protect the rights of the host country in controlling information about itself.

There are other equally as outlandish stories along the same line, but it should be apparent in just this brief description that there are a number of issues which the Agency at present has not adequately addressed. One that warrants

special consideration is the Agency's current procedures for handling of contractor collected data sets. According to Handbook 7, section 7.5501-22, under the terms of contract between AID and educational institution contractors, subject data is government property and it includes "...writings, software, electronic or punchcard data, models..."(p.91) For private money making contractors, no reference is made to anything that would include what is commonly considered to be actual data (see 7-75001-30, p.53). Moreover, for academic contractors, subject data is "data which is specified to be delivered under this contract"(7-75501,p.91). In other words, unless explicitly required within the contract for an academic contractor, data sets, though entirely paid for by AID, are not government property and apparently, therefore, can not be legally demanded from the contractor after the fact. As a case in point, the contracts of two substantial projects which involved considerable data collection (one with Purdue, another with Stanford) made no mention of data sets to be delivered to AID, host country ministries or other regional institutes. An individual involved with policy in S&T/POP checked every contract the division has entered into since 1979, a total of twenty-two contracts, and none mentioned the delivery of a usable data set to anyone.

From these few examples, it should be clear that much needs to be considered if the Agency is to tighten up its management of contractor collected data sets. The rationale for doing so is to create a sub-national data bank that would be of use to AID as well as to host countries. In this report, it is sufficient to point out some of the major issues involved with developing such a data bank. Among them are:

1) What will AID's role be in sponsoring such a data bank?
2) What legal or contractual amendments are needed to guarantee the delivery of contractor data sets?
3) How should these changes be incorporated into future contracts
4) Where will the data be housed - the host country, the AID mission, AID/Washington or some combination of locations?
5) What standards and requirments must a data set meet to be considered "usable and deliverable"?
6) Are all data sets to be delivered or just for certain projects, countries and sectors?
7) Who is to have access to the data?
8) Who is to protect host country rights over the security and use of data about itself and how should this be enforced?
9) What additional costs to contractors would such a decision entail?
10) Which division should be in charge of managing the sub-national data bank?

These are just some of the key issues which in one form or another, were concerns of those interviewed. Because this is one area where a small investment of Agency money and manpower might produce considerable returns not only for the Agency, but also for the host country where the data was collected, the topic warrants more serious consideration than it has so far received.

The New Wave: Microcomputers

Another area where considerable progress in data analysis could occur is in computer hardware advancement. Mini-computer systems (cost: approximately $120,000) are already in place in several missions and are being used with good results in at least Honduras and the Philippines. Some Aid mission staff have already begun using microcomputers (cost:$3,000 to $10,000) in their work. For example, I learned of one individual in AFR/DR/POP who had been fairly successful in using an APPLE II (a micro-computer) for demographic purposes in Morocco. He had also tested and adapted programs to the micro, one of which,VisiCalc, originally designed for business and engineering, seemed rather useful. Similarly, S&T/POP sponsors the RAPID project which uses a microcomputer with a didactic population growth program to show host country officials fearsome results certain rates of population growth will have on national development efforts. The micro is apparently left in the government bureau as part of the project, which has the additional benefit of facilitating the distribution of such machines in LDCs.

There is also the BuCen project mentioned earlier which will appraise the feasibility of greater use of micros LDCs as a strategy to compensate for the general shortage of computing capacity in these countries. The widely used CENTS and the recently improved COCENTS IV programs developed by BuCen are to be adapted to the micros. Both programs have the advantage of running very efficiently, using large numbers of cases and can be used on different makes of computers. It is also worth repeating that SER/DM is looking into the possibility of expanded use of microcomputers in the missions as well. Just to show what kind of advances are occurring in this area, there is a manufacturer developing a microcomputer specially adapted to field surveys. Contained in a briefcase sized carrier, the micro will display each question of the survey on a small video screen built into the system, enter and check the data input for possible coding or inappropriate response errors, and even do an immediate tabulation of the variable.

Despite the fact that micro's have been used in a limited fashion successfully in conjunction with some AID projects (e.g., micros were used by the Purdue team in the Sahel to record and clean data; however, the actual data analysis was done at Purdue), much still needs to be learned. The leaders of a team which used an APPLE II for data analysis in Central Tunisia warned that the glowing reports of micro advocates

should be accepted with caution. Apparently, the machines require frequent maintenance, much more so than one who is used to the convenience of a main frame computer might anticipate.

Nonetheless, the pros and cons of micro-based, decentralized computing is another important area where the Agency would do well to keep on top of developments that would be of direct assistance to its activities. As described above, there are several efforts already underway and they should be followed up with further work if they prove useful. In general, the Agency should consider what would be the most effective combination of computer hardware for each mission and host country so as to capitalize on the greater flexibility of the new generation of computer hardware. Another important concern expressed by one individual in PPC/PB is how quality control would be maintained over a fleet of Agency micros - i.e., who would maintain the equipment, guarantee skilled assistance and supervise their use? The image of dozens and dozens of semi-functional micros scattered around the world in AID missions with no one to repair or even update information files on them is enough to give anyone pause. In any case, AID should continue to monitor this important technological development.

The Regional Bureau View of Expanded Data Use

At the risk of ending this section on a low note, it is important to mention the discrepancy in opinions between central and regional bureaus concerning improved or expanded data use. Outside of the missions, the pressure for greater use of data for project activities has its strongest impact on the regional bureaus. This can be seen in the divergence of opinion expressed by those in the regional bureaus as compared to those in PPC, S&T and SER concerning greater or improved use of sub-national data. Those interviewed in the central bureaus more readily took seriously the proposition that improved and/or expanded data use by the Agency was possible if not necessary. Many had obviously given the idea serious thought in the past. The regional bureau opinions generally acknowledged that better use of appropriate level data and analysis would be a good thing, but expecting it to ever occur was another matter. As it

is, they are so pressed for time, that any such notions as more data use were simply beyond the pale.

Such a division of opinion is a normal feature of development bureaucracies, as Allan Hoben has argued(1980). Central offices must demonstrate to their funding sources the soundness of their programs, whereas operational units must mollify a plethora of host country demands and expectations while conducting their projects within the standards and regulations of the Agency. Consequently, demands for more data - more analysis only add to the complexity of their situation (Hoben 1980:340). But knowing this does not make the current situation any easier for the regional bureaus. As mentioned earlier, the case of the Rural Development office director in one of the regional bureaus was not an exceptional case; reports from other regional bureaus suggested a similar, if not quite so extreme picture of low-level chaos encountered in the use of data. Problems cited included the rotation of staff, limited manpower, insufficient hardware and personnel to use it, the untimeliness of and difficulty in accessing available data, the general lack of sufficient information from the field, the lack of commitment in terms of money and manpower by management to data use despite demands for it; the inappropriateness of available data for their needs (typically national aggregate statistics),

and that the demands for monitoring and evaluating projects often exceed the capacity of project personnel in light of their other activities. One comes away from such interviews with the impression of committed, experienced individuals harried by excessive workloads to the degree that greater use of data and analysis, even if they have the skills to do so, is virtually impossible.

To be fair to those in the central bureaus, many recognized the difficulty of improving data use in the Agency; however, the tone of the interview was not like that in the regional bureaus. It is a rather gross generalization, but it appeared that the central bureau staff viewed the rational use of appropriate data in a much more positive fashion. How accurate either view is could be debated. However, there has been a trend in AID to agree to do more with less. The Agency might be approaching a point at which what more would be done with data without other accompanying changes also occurring, would be of such dubious quality that perhaps it would be better left undone. Again, here is another important issue which the Agency must consider before it makes further demands for additional data use and analysis.

Conclusion: The Institutional Disincentive Toward Data Use

This report has raised a number of issues concerning AID's current use and management of quantitative data and has identified some apparent constraints to improving the situation.[1] If there is one point worth recapitulating, it is that the absence of a clearly formulated information policy fully supported by AID's management adversely affects the Agency's use of data. Absent such a policy, it appears that there is little recognition by AID management of 1) the importance of timely, appropriate data, 2) that the importance of data to AID operations will only increase in the coming years, 3) that rational (i.e., empirically based) planning and strategy formulation at all levels of the Agency can only be

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[1] This report has considered only systematically collected, quantitative data that can be assessed in terms of current scientific standards for representativeness, reliability, validity, etc. This obviously excludes qualitative data; however, this does not imply an opinion on the part of the author that qualitative data is "unscientific" and, therefore, of little utility to AID. To the contrary, quantitative data has its various and even numerous shortcomings and is certainly no panacea for all problems. In certain situations it is sheer folly to engage in quantitative data collection efforts when qualitative information would be a sufficient if not superior choice. A more reasonable approach is to consider qualitative methods as alternative techniques in some cases and as mutually reinforcing in others. Be that as it may, this report addresses only the use and management of quantitative data and leaves a comparable examination of qualitative data to others.

achieved when information needs are matched to appropriate level data, and 4) in a time of constricting financial resources, efficiency must be the rule and that includes the Agency's use of data. Related issues that have been identified concern the data delivery system of AID/Washington:

1) the lack of coordination among key divisions,
2) the desirability of central control over hardware decisions,
3) the tradeoff between the transferability of software versus the flexibility necessary to adapt software to particular projects, missions, and host countries,
4) the apparent lack of communication between regional bureaus and central bureaus concerning the former's information needs.
5) What are the pros and cons of decentralized (i.e., microcomputer) based computing and is the Agency giving the matter sufficient attention?

A second major set of issues concern the Agency's investment in different types of data:

1) Is the Agency over-committed to national aggregate statistics?
2) If so, then what possible sources of sub-national data should it better utilize?
3) What are the pros and cons associated with each of these sources?

Each of these issues contain a number of sub-issues that need to be laid out as options available to the Agency if it decides to act.

One additional issue pertaining to data use warrants consideration. During the interviews with a number of individuals, reference was made to the institutional constraints to improved or expanded data use. Two individuals in S&T/POP remarked on the de facto limitations placed on AID staff to engage in any form of data analysis or research directly applicable to their jobs. Let me make it clear, neither was talking about rarefied, academic exploratory research; rather, they were commenting on data analysis which would be directly applicable to Agency needs. Furthermore, this was in reference to AID staff who held research degrees and were certainly as qualified as many outside contractors (if not more so) who routinely are hired to analyze data. In other words, no one was implying that AID should become a research institute; they were simply discussing the use of data to perform an AID assignment effectively. One individual in S&T/POP noted that in their division, only one person could accurately be described as engaged in work re-

lated research involving data analysis and even that was accomplished only in the evenings after the workday and on weekends. The other, also in S&T/POP, reaffirmed the fact that people simply do not have the time to deal directly with data. Moreover, the general situation is one where there is an institutionalized disinclination towards becoming enmeshed with data, regardless of the individual's judgment of its utility.

A different version of the same perspective constituted the entire interview with one individual in NE/TECH. In last six months, this individual had witnessed the entire division transformed into a paper management operation even though it been originally designed as an analytic unit. The idea that PPC could seriously consider how it might encourage or force AID/W and worse yet, AID mission staff to make their work more analytically based, to this individual, was sheer fatuity. Workload, time and the flow of information, not into, but out of the missions militated against the idea of better or expanded data use. Even more abhorrent was the possibility that PPC would issue one more carte blanche directive for another analytic report that the operational side of the Agency must deliver.

I doubt that it is hardly news to anyone knowledgeable about the Agency that the problems these individuals articulated stem not from the division, mission or even bureau levels; rather, they are pervasive aspects of the Agency that can only be addressed at the management level. In particular, institutional disincentives toward data use and analysis exist within the Agency. As one analyst of international development bureaucracies observed (using AID as his case in point):

> "Emphasis is placed on designing projects rather than on implementing or evaluating them, and on the formal and informal standards used to judge achievement. For example, a regional bureau is regularly judged by its obligation rate, a mission director by the annual increment in his program, and efficiency is normally defined by the ratio of funds obligated to operating budget." (Hoben 1980:351)

Perhaps this is just the jaded perspective of a social scientist who had been around AID too long. However, it certainly corresponds to what a number of individuals currently within the Agency considered to be a central issue bearing on the use and management of data. To the degree that the above description also characterizes the reward system of career advancement, promotions and assignments, no one of sound mind can expect as a

matter of course that employees of the Agency will engage in the most time consuming of activities - data collection, analysis and so forth - which has little to do with obligating funds. Nor will a reward system based on such priorities lead to greater concern for or involvement with improving the quality of project relevant data, its analysis and its use. In short, when the name of the game is "moving money", accuracy takes a backseat to quantity.

The institutional disincentives toward the use of data constitutes one final issue, which actually comes first, for consideration. It must be determined how firmly committed AID is to the type of directives set forth for the CDSS, for example, and clarify the matter for those within the Agency who are involved. In light of all the other issues raised in the preceding sections, it is obvious that it makes no sense to merely call for "more" or "better" without committing sufficient funds, time, manpower and rewards to those who are to deliver analytically sound work.

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Overview

This paper is the first of two reports concerning AID's use and management of quantitative socio-economic data pertinent to rural development. It presents a selective overview of current activities and procedures for the collection, reporting, analysis, and interpretation of quantitative data within the Agency.

The first objective of this report is to describe the actual handling of quantitative data by AID/W and, to a much lesser extent, by AID Missions. The second purpose, is to identify where data needs are not adequately met or are met with inappropriate level data. A major focus is on the division of labor and the delegation of responsibilities for data-related activities within the Agency and how organizational problems affect the efficient and effective use of quantitative data.

The author finds a "curious ambiguity" in the Agency's current position concerning data use and management. On the one hand, AID personnel attest to the fact that moving money and obligating funds are the Agency's foremost activities. There are thus institutional disincentives to working with data and data analysis even where staffers are sufficiently qualified to do so. On the other hand, in light of constant or diminishing funds, there is a need for greater effectiveness in all facets of AID projects. This latter factor clearly means that the activities of AID must become more analytically based to avoid bad policy decisions and bad planning, not to mention repetition of old mistakes. The report shows that there is currently an impetus for more and better data use. The

question posed, then, is what momentum exists for the Agency to improve its data-related activities.

I. The Impetus Behind the Use of Appropriate Level Data

AID's Congressional Mandate is seen as instrumental in promoting the greater use of data within the Agency. Further, the view contained in the guidelines for the CDSS process implies that there should be greater use of sub-national data. There are calls for using the analysis of sub-national data as the basis for defining the poor majority and for assessing the equity of development outcomes:

> ... (the analytic section) should provide...a breakdown of the poverty group into major sub-groups relevant to development and discuss variations in poverty levels among sub-groups, changes in sub-group poverty and the relationship between sub-groups (p. 8).

Such directions imply that those preparing CDSSs should have an array of sub-national social and economic indicators at their disposal. Subsequent CDSS guidance in cables reiterates many of the same directives involving the use of sub-national data. Thus, the commitment to improved use of sub-national data for planning purposes appears quite firm; perhaps equally firm is the commitment to using such data more effectively in project and program evaluations.

Compliance with these directives, of course, assumes that AID staff have the necessary professional training and experience, that they have access to either appropriate data or reports

containing usable analyses, and that they have the time, resources (money and hardware) and initiative to do so. So far there has been little initial success, but some CDSSs examined show genuine progress in the use of sub-national data.

II. The Divisions Most Involved with Data Use and Management

The primary responsibility for facilitating data use and for supervising data management operations is divided between two units in AID/W: S&T/DIU (Development Information Utilization) and SER/DM (Data Management). Both are user-oriented divisions: (1) they provide technical assistance directly to the Missions in some cases; (2) they arrange for assistance from outside agencies, such as the Bureau of Census or private contractors; or (3) they give advice on the capability of outside contractors to provide needed services. Because they have no particular content/subject focus, they are unlike the two other divisions in AID/W that are also involved in quantitative socio-economic data-related work. PPC/E (Evaluation) and S&T/POP (Population) provide more specific advice. PPC/E is primarily involved with questions concerning project monitoring and evaluation, whereas S&T/POP guides policy decisions concerning demographic issues. Therefore, of the four data-related units within AID (the Bureau of Census is considered to be close to but not in-house), only S&T/DIU and SER/DM have no interest in data per se other than what is necessary to service the needs of AID/W and the AID Missions. While the responsibilities of these four units and the closely AID-related Bureau of Census unit can be formally

delineated, the division of responsibility and areas of activities is not so precise and compartmentalized as it might at first appear. In fact, not only are there conflicting interests which produce disagreements over who has authority over what, but such conflicts reflect a lack of coordination among these units, which are supposed to function jointly as an information system.

III. User Community Views and the Coordination of Data Services

The purpose of this section is to convey the views of those representing the AID user community concerning available information services and data management in general. It also identifies in a preliminary way what appear to be important problems affecting the delivery of services and resources necessary for efficient data access, use, and management. The primary constraints appear to be: (1) staffing both in data services and data-user units, (2) a lack of coordination between data-related units, and (3) conflicting interests between key divisions due to the organization and distribution of responsibility for data management and systems development among them.

Of those individuals asked to provide a "user" opinion concerning the currently available services and facilities for data use and general data management, no one apparently felt compelled to extoll the virtues of the present system. In most cases, there was the starting assumption that the whole question of improving data use in the Agency was an uphill battle (on a very steep hill) in light of AID's current staff reductions

and freeze on hiring. But the impression was also conveyed that the general orientation of AID toward the use of data was glaringly inadequate and that the organization of data and its dissemination to AID Bureaus and Missions could be vastly improved, setting aside the financial and manpower restraints to doing so under the Agency's current budget allocation.

An argument stated at the beginning of the report -- that the Agency's various information needs could only be adequately met if it had access to the appropriate data -- led to development of an effectiveness criterion for reviewing data services provided: that a system of information/service delivery should match specific needs with the necessary data. The interviews with users suggested that the system does not work as well as it should, that is, certain information needs are not being adequately met.

The author suggests several policy issues which the Agency must address to set its house in order concerning data use and management. Foremost is the need for an Agency-wide information policy which would embody a genuine commitment to improved data use and in particular, to matching information needs to appropriate level data. Such a policy would also involve assessing the Agency's current and upcoming information needs and then determining how much it should invest in each type of data. It would also clarify the roles and provide coordination among all those involved in the delivery of data. The author clearly endorses pursuing such reforms because... "Until that time,

simply calling for more extensive data use will not produce very satisfactory results".

IV. Potential Areas for Improved Use of Sub-National Data

Several among those interviewed considered expanded use of sub-national data by AID unrealistic in light of the difficulties they currently encounter in accessing and finding time to use existing data sources (which are, for the most part, national aggregate statistics). The majority of those interviewed, however, responded with considerable interest. Further, all in general considered increasing the capacity for data analysis by host countries as important and consistent with the overall mandate of the Agency.

Four areas were explored in some detail: greater utilization of the Survey and Evaluation Unit (SEU) in the Bureau of Census, better use of contractor-collected data -- through more stringent reporting requirements among other things, getting on top of the "new wave" in data-related technology -- microcomputers; and the relationship between central and regional bureaus and their differing views on improving data capacity.

All would seem to have significant implications for improved data use -- rural development planning, project design and evaluation. However, the author emphasizes that it must be determined how firmly committed AID is to the types of directives set forth for the CDSS, for example, and clarify the matter for those within the Agency who are involved... "it is obvious

that it makes no sense to merely call for 'more' or 'better' without committing sufficient funds, time, manpower, and rewards to those who are to deliver analytically sound work."