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EVALUATING THE IMPACT OF INTERNATIONAL TRAINING FOR DEVELOPMENT  
IN ZAIRE: A CASE STUDY OF THE STUDIES AND PLANNING SERVICE,  
THE DEPARTMENT OF AGRICULTURE, ZAIRE

by

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Submitted to:

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EXECUTIVE SUMMARY

The impact of international training for development was assessed with a research strategy which combined elements of a case study approach and a quasi-experimental design. Data collection and analysis were carefully documented to allow verification from beginning to end. The aim was to create a case providing substantive results on impact of training while testing the methodology in a way that would allow comparison through future longitudinal studies of this case and with other cases.

The research focused on training in the U.S. for fifty-three staff members of the Studies and Planning Service, Department of Agriculture, Zaire, in the U.S. between 1977 and 1983. The participant-trainees studied at U.S. universities and/or the International Statistics Program Center, the U.S. Bureau of the Census. The majority earned masters degrees in either agricultural economics or agricultural statistics.

The results indicate that international training has had an impact at three levels hypothesized--individual, organizational and institutional--and also beyond the Studies and Planning Service. Individuals inside and outside the organization confirmed that the knowledge and skills of the trainees were enhanced by training. Data were collected from multiple sources using multiple methods in order to create a "chain of evidence" which helped to show the role of training, particularly in producing the outputs of the organization.

Although the Studies and Planning Service has lost some technical capacity as trainees have moved on to new positions, SPS has gained influence at the policy level and in program and project management in the agricultural sector through the trainees who have taken significant positions within the agricultural sector.

Macro-economic policies and the lack of agricultural policy in Zaire have severely constrained micro-institutions, such as the Studies and Planning Service, from realizing their potential. However, this study confirms that it is possible to develop and to sustain an increasingly productive organization--a micro-climate of development--within a harsh and hostile environment. At the same time, without policy changes, the sustainability of such micro-institutions is unlikely.

The method developed for this study has the strength of providing in-depth understanding of the impact of training both on persons and institutions. Suggestions for improving the methodology include adopting an integrated word processing and database management program with enough capacity and flexibility

to allow easier manipulation of textual data; using a team of two or three persons to provide feedback to the interviewer for adjustments in data collection and for an earlier start on data analysis; building into the fieldwork dedicated time for data analysis mid-way through the fieldwork to improve data quality by insuring completion of responses to all key questions.

Discoveries: demonstration that impact of training goes beyond project goals even though project goals may not be completely achieved; assessment of impact at multiple levels demonstrates that trade-offs are sometimes made between types of gains (technical, managerial and policy); although extremely labor-intensive, in-depth interviews in the field provide valuable information and understanding which cannot be achieved by distance data collection.

## ACKNOWLEDGMENTS

The field research for this study was supported by several institutions. The foremost has been the International Training Division of the Office of International Cooperation and Development, U.S. Department of Agriculture, my work place for the past eight years. I conceived the project out of my work experience. In addition to financial support from the Division, my colleagues and supervisors have been generous and supportive throughout in allowing me the flexibility to integrate work and study. Every civil servant should work in such a humane environment that defies the stereotypes of bureaucracy.

Participant-trainees and their colleagues in the Studies and Planning Service, the Department of Agriculture, Zaire, were generous with their time, tolerant of my persistence and, I trust, forgiving but not uncritical of any errors of understanding or interpretation I may have made. The Service provided staff to assist in the fieldwork. Many persons, Zairian and expatriates alike, provided assistance and friendship while I worked in Zaire. I am particularly grateful to Ms. Suzie Zein for her work as interpreter and Citoyen Kassenga Ali-Zihuka for his sustained interest and follow-up work.

Two units within the U.S. Agency for International Development provided financial support: the Agricultural and Rural Development Office in Kinshasa, Zaire, and the Center for Development Information and Evaluation, Washington. Mr. Ray Cohen, Project Manager, read drafts of the work, has provided helpful comments and has been supportive at all times.

The study is based on data also used in<sup>5</sup> doctoral studies which I have completed in the School of International Service, The American University. The considerable work which I did prior to and after receiving financial support for the fieldwork has contributed greatly this study. My committee members were a source of encouragement and insight over the past two years. I am particularly indebted to Dr. Coralie Bryant, chairperson of the committee. She provided much of the intellectual inspiration for the research. Her insights and suggestions were always incisive, and her supportive attitude and commitment to development have been inspirational to me personally.

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## CHAPTER I

### CAPTURING BENEFITS OF INTERNATIONAL TRAINING FOR DEVELOPMENT

In 1972 a planning team of experts from the United States conducted a study of the administrative capacity of the Department of Agriculture in Zaire. As a result of that study, a development assistance project was initiated with the Department of Agriculture to develop within a newly created agency in the Department the capacity to collect and analyze data on the agriculture sector, to do agricultural economic analysis, and to provide information that would serve as a sound basis for agricultural policy and decision making.

The Studies and Planning Service (SPS) is the agency which has evolved from the development assistance effort. Between 1977 and 1983, fifty-three (53) SPS staff were sent to the U.S. for advanced studies. In spite of staff losses after return, SPS has a reputation for having the best trained staff in the Department of Agriculture in Zaire. This study examined the impact of that international training for development within the Department of Agriculture. The following section sketches a brief profile of the Studies and Planning Service.

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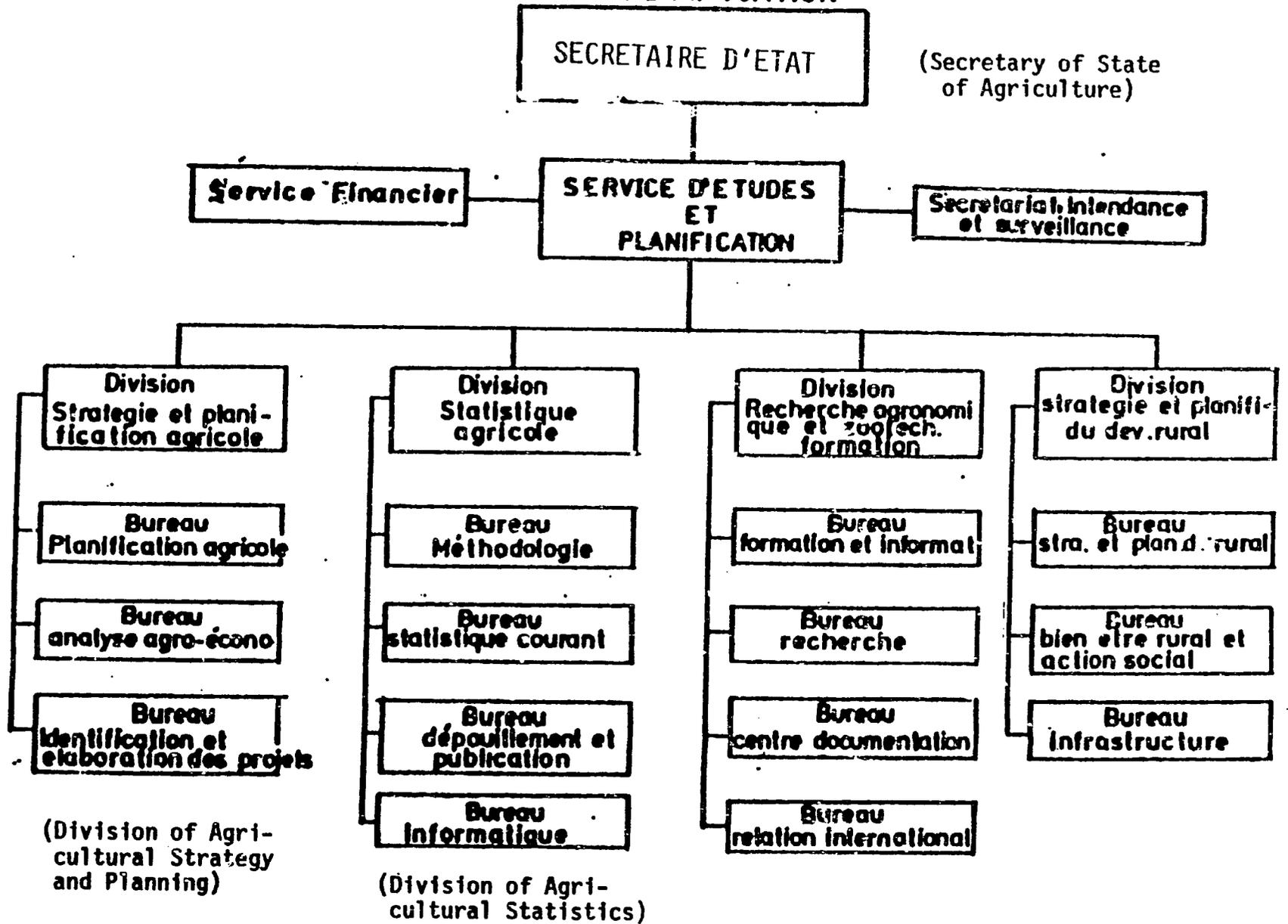
## Studies and Planning Service: A Profile

The Studies and Planning Service (SPS) has developed significantly over the years since its inception. Four basic functions were planned for the Studies Bureau: 1) finances, budget and administration; 2) project design and evaluation; 3) economic analysis and planning; and 4) statistical data collection and compilation. Since that initial study, four successive development assistance projects have emerged, each one attempting to build on the other. 1/

Although progress toward the goal has been slower than anticipated, SPS has evolved as one of the most highly respected Services or Directions within the Department of Agriculture. SPS took on its current organizational form in late 1982. Illustrations 1 and 2 outline SPS's organizational structure and show its position within the Department of Agriculture. As the illustrations suggest, SPS has had a privileged, though not totally unique, situation. Note some of the changes which have occurred.

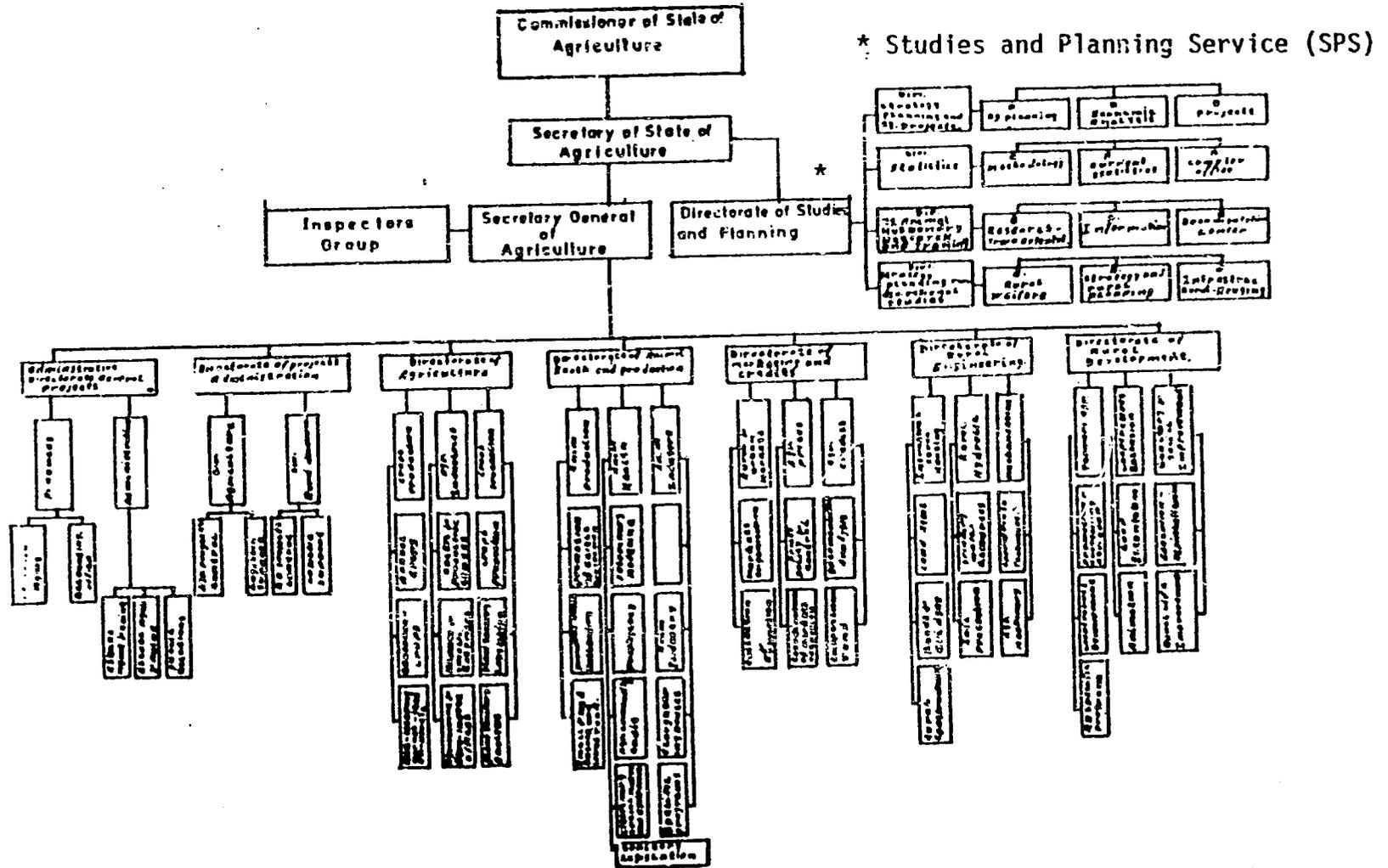
The Studies and Planning Service has come a long way from a staff of seven (7) Zairian technicians in 1974 to a staff of 75 technicians within its two major divisions in 1986. In the 1970s, SPS (then known as the "Bureau d'Etudes" and the Division of Statistics) were separated into temporary facilities. Now SPS boasts of two major non-luxurious but functional office buildings equipped with quite an array of microcomputer hardware, support staff almost equal in number to professional staff, three buses that transport workers to and from work, six days a week, a

# ORGANIGRAMME DE SERVICE D'ETUDES ET PLANIFICATION



3

# CHART OF THE DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT



modest library, air conditioners, "primes" or "supplements" to salaries five to six times greater than that provided by the official government paymaster, the "Function Publique." Of course, these benefits have only come about slowly over a period of years in response to the economic decline of Zaire over the past decade.

Beyond the material improvements, there are two other important features of the Studies and Planning Service: SPS is a functioning organization, and it has concrete results to show for its efforts--missions conducted with international donor staff, commodity studies, regional reports, and an array of other occasional reports. SPS also has greater influence than ever before within the Department of Agriculture, increasing respect among sister departments, and support from at least four major international donors. By almost any measure that immediately comes to mind, SPS seems to be an outstanding success story. A central task of this research was to explore the impact, if any, of international training on development, including the development of SPS.

#### The Case: International Training Under the Zaire Agricultural Economic Development Project

The Agricultural Economic Development Project was the second in a series of what has now turned out to be four projects. The international training component was conducted in the U.S. from 1977-83. Under the Project, 53 Zairians were trained either in agricultural economics or agricultural statistics at several U.S. universities and the Bureau of the Census. 2/ Most of the participants studied for masters degrees (35). Most of those who

studied at the Bureau of the Census (16) earned certificates, though four earned masters degrees in conjunction with George Washington University. Three participant-trainees studied for doctoral degrees with two successfully earning doctorates.

Of the fifty-three participant-trainees, 48 had returned to Zaire by mid-1986. By then just over one-third were still working in the Department of Agriculture and less than one-fourth were working in SPS, the agency for which they were trained. 3/ Although retention of staff within SPS has been less than anticipated, there have been many visible accomplishments.

Yet, in spite of these accomplishments, a very big question remains: If funding from the international community were cut off, what kind of institution would the Studies and Planning Service be? How many of its current functions would the Department of Agriculture be able to sustain? Who will provide for the needs of SPS in the future? Will the organization outlive the life of the donors?

Development funds have been spent, training has been provided, and an impressive organization has been put in place. What kind of development has taken place? Has institutionalization of the functions of SPS taken place? The key words are institutionalization and sustainability. Anyone concerned with development must address those issues. The question of impact of training must be seen within the framework of institutional development. What role has international training played? These questions lead directly to the research questions.

## The Problem

### Two Central Research Questions

The research addresses two central questions: 1) What, if anything, does international training contribute to development? and 2) How does one evaluate the impact of international training for development?" The following theoretical framework provided the beginning point for addressing those questions.

### Theoretical Perspective

#### Basic Concepts

Development is a central concept in this study. Development necessarily implies change, but not just any kind of change. The following definition identifies the key elements in the concept of development used in this study which reflect a particular set of values.

In this study, development refers to sustainable change processes by which people are enabled to increase their individual and collective capacities to make choices about their futures. Through those change processes, society creates opportunities for individuals to apply their capacities to satisfy their basic human needs and to contribute productively to society in ways that are appropriate and meaningful to that society. 4/

Central to this concept of development is a concern about what values are promoted in the changes introduced through technical assistance and international training. Some training programs leave no doubt that one of their central aims is to transmit specific values associated with democracy and

capitalism. 5/ But even when values are not explicitly identified, values are being communicated at the same time that technical knowledge and skills are being learned. What kinds of changes do training and technical assistance introduce? Do these changes represent development to those most affected? When outsiders intervene in societies with technical assistance or international training, who benefits from those interventions-- individuals, society as a whole or some combination? These questions are inherently a part of the question of impact of training and are important for understanding development. The key components of this definition are examined more closely in chapter 2.

#### Interest and Purpose in Research

Values also permeate research into the impact of international training. Research problems are not created "ex nihilo." They are products of interests and personal commitment as well as the more apparent factors of formal education, training and professional experience. Thomas S. Kuhn has argued persuasively that the methods of science are not exempt from the focusing but limiting nature of interest and purpose. Kuhn argues that science includes "An apparently arbitrary element, compounded of personal and historical accident, (which) is always a formative ingredient of the beliefs espoused by a given scientific community at a given time." 6/ Both interest and purpose play important roles in identifying and defining research problems.

This research project was undertaken primarily because I managed part of the U.S. training program and developed a keen personal and professional interest in the project. I wanted to know what impact the training program had in Zaire. Although interest and purpose may be interpreted by some to be obstacles to be overcome, they have been positive forces in initiating and carrying out this research.

Experience with the project piqued my interest and spurred me to find a way to research the problem. The rapport which developed as I managed the training program provided a foundation for the field work, gave me ready access to former participants, and enhanced my credibility as an evaluator. 7/

#### Limits to Knowledge

All knowledge is obtained from a particular perspective or vantage point which determines its uniqueness and its limitations. In focusing on a set or configuration of "facts" through the lens of disciplinary interest, other "facts" are inevitably overlooked. Since there are inevitable limits to what it is humanly possible to see at one time, even looking at a problem from a variety of perspectives does not solve the dilemma. This does not mean that one "fact" is as good as another. Rather, it is an acknowledgment of the finiteness of all human knowledge and the inherent limitation of all perspectives. How then can sheer relativism be avoided?

By making both assumptions and methods as explicit as possible a value base is established for building a theoretical perspective, making some aspects of it open to examination and

critique. Since every perspective is limited, all theoretical perspectives inevitably will be challenged by alternatives. If the work is done well, the process of examination and "winnowing" should produce more accurate representations (theories) of what is anchored in truth and reality. Through such a process, knowledge and understanding of the impact of training in relation to development within a particular context can be increased.

### Propositions

The following propositions set forth the basic assumptions underlying the theory of international training for development examined in the research. The propositions state widely held assumptions about the relationship between international training and development by agencies sponsoring international training.

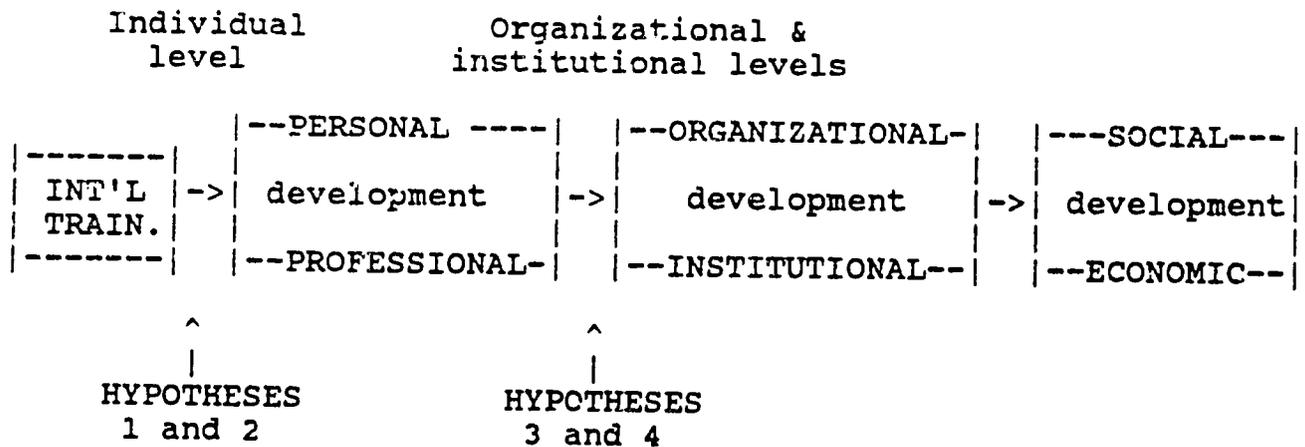
Proposition 1: International training is a combination of learning experiences occurring outside national boundaries which contribute to the development of personal and professional capacities of people.

Proposition 2: Trained individuals returning to their home countries contribute to social and economic development through their increased personal and professional capacities.

Proposition 3: Organizational and institutional development are two levels at which some of the benefits of individual development may contribute to social and economic development.

Figure 1 is a simplified diagram of the relationships stated in the propositions.

Figure 1: Hypothesized relationships of international training and development at three levels



Four hypotheses were formulated from the propositions. Following is a brief statement of the hypotheses:

---

#### SUMMARY OF HYPOTHESES

- 1: International training contributes to personal development.
  - 2: International training contributes to professional development.
  - 3: International training contributes to organizational development through participant-trainees.
  - 4: International training contributes to institutional development through participant-trainees.
- 

Chapter 3 includes a discussion of the hypotheses in greater depth and identifies the indicators selected to operationalize the concepts in the hypotheses. The preliminary hypotheses provided a beginning point. The aim was to demonstrate how the data tend to confirm or not to confirm the hypotheses. The relationship of the hypotheses and indicators to the analysis is discussed in detail in Chapter 5.

## Other Concepts

Two features make the case particularly interesting for evaluating impact of training: 1) nearly all participant-trainees were trained in agricultural economics or agricultural statistics, and 2) all were sent from and slated to return to work in the same agency--the Studies and Planning Service. This made it possible to examine impact of training on individuals, on the organization, and on the processes of institutionalization within SPS.

### Levels of Analysis

The analytic framework distinguishes three levels of analysis: individual, organizational and institutional. Individuals are flesh and blood human beings who can offer accounts of the impact of training on their lives. The individual level focuses on qualities which may reflect the impact which training has had on them as persons and as professionals. The characteristics include attitudes, behavior, relationships and the results of their work.

Organizations are sometimes referred to as institutions, but in this study these two are distinguished. Organizations are most often closely identified with particular, concrete entities including people and physical facilities. Used here, the organizational level identifies a particular association of people at particular points in time. Institutions reflect the patterns of work, relationships, and roles which individuals and organization develop over time, not limited to a particular point in time. In time an organization may take on "institutional"

qualities such that the identity of the organization and the institution which has evolved are practically synonymous. The Studies and Planning Service is an organization which is evolving as an institution as it increasingly fulfills the role of providing information on the agricultural sector in Zaire that is useful to a widening audience. Thus, it is accurate to say that that function is becoming institutionalized in SPS.

### Impact and Consequences

To examine "impact of training" means to discover what has happened to and because of the persons trained after the training program. This meant finding out where the participants have gone, what they have been doing, and what the training program has meant to their lives.

Beyond the individual level, the study looks at what has happened within the organization because of the presence and activity of the participant-trainees. It also implies searching to identify linkages between individuals and outcomes. In most cases this is difficult. Even more challenging is finding evidence of a linkage between outcomes and the training received by individuals. The best hope is to develop persuasive evidence from multiple sources of data.

Unlike creation of an organization, which might occur in a day, institutionalization is a process that takes place only with the passage of time. What type of institutional development has taken place within SPS? There is evidence of impact of training at each of these levels. Of course, the farther away from the

trainees in both time and distance, the more difficult it is to trace the impact of training. 8/

#### Summary of the Research Method

The research method used in this study is a hybrid, combining a case study approach with quasi-experimental methods. The case study method provided latitude to see participant-trainees and the Studies and Planning Service (SPS) in their natural settings. The quasi-experimental methods provided control over factors which a pure case study approach does not. The aim was to combine the strengths of both approaches creating enough structure to give the research focus while maintaining enough openness to incorporate data not anticipated in the design.

Combining the two approaches led to a certain amount of tension throughout the field work. On the one hand, I wanted to maintain consistency for the sake of making comparisons, but on the other hand, I often felt compelled to push interviews further for the sake of fuller understanding. The results represent the necessary compromise dictated by time and resources.

#### Building a "Chain of Evidence"

A case study approach cannot demonstrate cause and effect in the same way a purely experimental research design can. However, a persuasive case demonstrating the impact and consequences of international training can be made by building up a "chain of evidence" from multiple sources (participant-trainees, colleagues, other key observers) using multiple methods of data

collection (interviews, written reports, archival records, observations).

The central links of the "chain of evidence" are data from the in-depth interviews conducted with persons in the Training Group (participant-trainees) (32 interviews), persons in the Comparison Group (16 interviews), and other Key Observers (25). A premium was placed on personal interviews and first-hand observations in the field in order to understand the impact of international training from the perspective of those most directly affected--the participant-trainees. Being able to conduct the interviews within the environment to which they returned made it possible to understand more completely the multiple forces affecting the impact of the training program.

#### Other Links in the Chain

Data on the background of individuals were gathered from a variety of sources. Files at the U.S. Department of Agriculture, the Agency for International Development, and Studies and Planning Service, as well as university reports provided useful biographical data. U.S. Department of Agriculture and Bureau of Census, International Statistical Program Center files provided the majority of data on the international training program, individual biographies, previous academic records, and performance of individuals during their U.S. training programs.

The working papers and publications of SPS were the major source of data used to measure the output and productivity of the SPS and the individuals who contributed to those outputs.

Curriculum vitae forms completed by most of the interviewees

in both groups provided data on the activities of SPS staff over the years.

These data were used to build a data base of variables which allowed profiles of the two groups--the Training Group (TG) and the Comparison Group (CG)--to be drawn to control the intervening effects of sex, age, marital status, education, work experience, ethnic group, social status, and experience with technical advisors. Comparisons were made between the Training and Comparison Groups and by employment as well.

By using first-hand reports, the impact and consequences of training have been examined from the perspective of the people most directly affected. By systematically drawing in multiple sources of data, the validity of the findings has been enhanced. By fully documenting the data collection procedures, the reliability of the methodology can be verified so that the case can be used for future longitudinal studies and more confidently for cross-case comparisons.

#### The Case: A Vignette

The following vignette illustrates the scope of the struggle required to capture the benefits of training, financial and technical assistance and to translate those into institutional development. Recognizing the potential significance of agriculture in the Zairian economy, in 1977 the head of state declared the agriculture sector the "priority of priorities." Political rhetoric aside, agriculture has not received priority attention over the past decade. In fact the Department of Agriculture occupies second-class status (at best) within the

ranks of government in Zaire. 9/ In recent years the share of the Government of Zaire's budget allocated to the agriculture sector has declined from about 3 percent (1980) to less than one percent (1986). The Department of Agriculture's relatively low status and declining share of budget has had a significant impact on the international training and technical assistance programs sponsored under the Agriculture Economic Development Project.

Salary differentials between departments and between the public sector, parastatals and the private sector was a recognized problem before the beginning of the training and technical assistance program. At the outset the Project Paper (1975) stated the problem and proposed a solution: "Wage parity issue must be resolved....As current DOA [Department of Agriculture] salary levels are noncompetitive [sic] with those of other government offices, it is feared that personnel retention will be a problem." The solution proposed was "to finance higher salary levels out of a supplementary budget fed from counterpart funds until the end of the project." 10/ In a rather matter-of-fact manner, the Project Paper stated:

After the project's termination in 1981, the Government of Zaire [GOZ] will be required to continue funding the salaries of the additional personnel and the salary increases resulting from the advanced training received by DOA's [Department of Agriculture's] staff. 11/

The reasoning was based on the fact that the local currency costs of the salary proposal represented less than two percent of the Department of Agriculture's projected budget and on the seemingly reasonable assumption that Department of Agriculture's share of the Government of Zaire budget would increase at rates equivalent to the 1974-76 period. The Paper further "assumed that, in view

of the high priority given to agriculture, such rate of increase will be easily achieved." 12/ As it turned out, nothing could have been further from the truth.

The optimistic plans and projections of the Project paper were dashed by the realities of soaring inflation and plunging productivity. The problem of staff retention became even more acute than ever. Paying premiums ("primes") or salary supplements from project funds became the means to cope with plummeting real wages.

The depth of the economic decline is reflected in data from the Central Bank of Zaire ("Banque du Zaire"). By 1982 real wages in the public sector had fallen to 14 percent of their 1975 value, recovering only to 16 percent by 1983. During the same period, private sector real wages bottomed out in 1979 at 28 percent of their 1975 value, but by 1983 they had recovered to 75 percent of the base year (1975) value. 13/ Although in one of the Project's evaluations paying premiums out of project funds was described as "repulsive to donors" and "anathema" to "sustainability," the practice continued in SPS through 1986. 14/

The Project illustrates vividly some of the dilemmas of development. One of these is the tension between micro-level needs, decisions, and goals and macro-level realities beyond individual or organizational control. This sometimes leads to adopting practices which are essential to short-run organizational survival but are at odds with long-term

institutional development. Most frustrating is the fact that there may not be a better alternative.

The reality of situations often render as folly the best made plans. One begins to wonder: Is it possible to achieve even a semblance of development in such seemingly hostile and unpredictable environments? That question is given a qualified positive answer--at least for the short-run--by the results of this study. A 1985 evaluation summarizes the strides taken by the organization:

In spite of these problems, SEP [SPS] has made enormous progress during the last five years. It is now a Directorate within AGRIDRAL [DOA]. Its technicians are regularly consulted by the highest levels of government. Its reports represent the best published information on Zaireian [sic] agriculture. Increasingly, SEP [SPS] is playing a role in agricultural policy development. 15/

The Studies and Planning Service is a small, but lively micro-climate which has been developing under a rather hostile macro-environment. Its long-term survival as an indigenously sustained institution, however, remains to be seen.

## NOTES - Chapter 1

1/ Zaire Projects 660-0050, 660-0052, 660-0070, and 660-0119 have all been funded by the Agency for International Development.

2/ The number of participant-trainees counted in this study is 53. The actual number of persons who were funded for training was 54, if one counts the one semester of training in library science for the spouse of one of the participants. Since that training was not of the same type and was only adjunct to the training program, she is not counted among the pool of trainees. Three participants studied for doctoral degrees after completing masters degrees. One was funded by a university. One was simply a single, continuous program encompassing both the masters and doctoral degree. The third was a second degree begun three years' work in Zaire.

3/ If one counts two advisors to the Commissioner of State for Agriculture (the equivalent of a Minister of Agriculture) and one other participant-trainee who returned to SPS during the course of the evaluation, the total number still working in SPS is 14 (26.4 percent). The figures used for the Training Group working in SPS (11 or 20.8 percent of the 53 participant-trainees) reflect their positions and responsibilities at the time I conducted the interviews (March 17-May 10, 1986).

4/ While my own formulation, the definition draws upon the work of Coralie Bryant, Louise G. White, David Korten, and James Weaver as well as others. See Coralie Bryant and Louise G. White, Managing Development in the Third World Boulder, CO: Westview Press, 1982), pp. 14-19, and Louise G. White, Creating Opportunities for Change: Approaches to Managing Development Programs (Boulder, CO: Lynne Rienner Publishers, 1987), pp. 11-17.

5/ The Agency for International Development's Central American Peace Scholarships is an explicit effort by the Department of State to expose younger, more impressionable people to the values of U.S. society by bringing them to the U.S. for six to eight weeks to "experience America." The aim is to influence them in ways considered both favorable to U.S. foreign policy interests and to promote democracy and capitalism in Central America. I am unaware of any attempts to evaluate the effectiveness of the approach.

6/ Thomas S. Kuhn, The Structure of Scientific Revolutions, Second Edition, Enlarged, Vol. 2, No. 2 International Encyclopedia of Unified Science (Chicago: The University of Chicago Press, 1970), pp. 4 and 7. See also Michael P. Hamnett, et al. Ethics, Politics and International Social Science Research: From Critique to Praxis. East-West Center (Honolulu, Hawaii: University of Hawaii Press), p. 40. See also Terence Ball, "From Paradigms to Research Programs:

Toward a Post-Kuhnian Political Science," in Herbert B. Asher, et al. Theory-building and Data Analysis in the Social Sciences (Knoxville, TN: The University of Tennessee Press, 1984), pp. 23-49.

7/ In a number of cases individuals made great efforts to make themselves available for interviews. One individual living outside of Kinshasa made three attempts to meet me for an interview in spite of the fact that he had to rely on public transportation. Because I had made a number of attempts to find him at another ministry, he waited for three hours at my hotel to try and meet me.

Another factor also helped to build rapport. By going to Zaire, I was able to experience with former participants what Denis Goulet calls "vulnerability"--opening oneself to others in the research setting. In Zaire our roles vis-a-vis each other were reversed. While in the U.S., participants were forced to rely on me as their program specialist. I was the provider; they were the recipients. In Zaire, my success in collecting data depended in large part upon their cooperation and expertise. They were the providers--of information, advice, and hospitality; I was the recipient. I think the reciprocal nature of the relationship contributed to a positive and open atmosphere in which to collect data.

8/ The term impact frequently refers to outcomes which are more accurately identified as consequences. Impacts and consequences differ in two ways: time and cause. Impact has an immediate ring to it and refers to an immediate and direct result of an action or activity. In contrast consequence implies the passage of an extended period of time and refers to a less direct and more mediated result of a particular action or activity. This is more obvious as the distinction between organizations and institutions becomes clearer. Institutions develop as a consequence of repeated patterns of behavior by individuals within and between organizations. In general, impact is used to refer to both, in spite of the technical differences.

9/ One civil servant observed that the relative status of government departments is reflected by the numbering of the license tags of the official vehicles of the "Commissaire d'Etat" (ministers) for each department. As he stated, "There are 32 departments [and] the top is Propaganda. Agriculture ((is way down on the list)). He offered the following ordering of license tags: prime minister, propaganda, "animation," women, internal affairs, foreign affairs, justice, finance, plan, agriculture. When I asked if that ordering was reflected in the budgets, his reply was "No way. Agriculture must have less than 1 percent."

10/ U.S. Agency for International Development, Zaire Agricultural Economic Development Project 052, Project Paper by Antonio Gayoso, Dean Schreiner, and T. T. Williams (1975), pp. 7, 66; see also p. 56.

11/ Ibid., p. 7.

12/ Ibid., p. 65.

13/ Banque du Zaire, Rapport Annuel 1984-85. See also Curtis Jolly and Glenn Howze, Agriculture Sector Studies Project: Project Number 660-0070, Second Mid-term Evaluation, Department of Agricultural Economics and Rural Sociology, Auburn University, and South-East Consortium for International Development (September 16, 1985), pp. 15-17.

14/ Wilford H. Morris and William M. Rideout, Jr., Final Evaluation of Project 052 and A Mid-term Evaluation of Project 070, (22 February, 1983), p. 8.

15/ Jolly and Howze, Agriculture Sector Studies, p. iii.

## CHAPTER II

### EXAMINING CENTRAL CONCEPTS AND THE ZAIRIAN CONTEXT

This review of literature explores the major concepts providing the basis for the conceptual framework of the study. These are: 1) international education and training, 2) development, 3) organizational development and 4) institutionalization. A common link is the role of values in the processes of development. The chapter begins with a review of the Zairian context to which participant-trainees returned.

#### Salient Characteristics of the Zairian Context

The Zairian situation to which trainees returned was bleak. The general economic environment has been declining for over a decade. The deterioration of the official economy has been paralleled by expansion of a "second" or "unrecorded economy" into which a large portion of the population has been drawn, some for profit, many for survival. Political power has become extremely personalized, centralized and intertwined with the bureaucratic apparatus.

Following are some of the salient characteristics of life in Zaire which directly affect the prospects for development: 1) the

emergence of an absolutist state which currently has no significant countervailing power; 2) a dichotomized economy characterized by declining standards of living and increases in absolute poverty; 3) an increasingly class-oriented society based on "clientelism"; and 4) a weak institutional environment, illustrated most vividly by the Zairian bureaucracy.

#### An Absolutist State

Beside the sheer physical size, the vast natural resources of the country, and the un-realized potential of the economy, the most prominent feature of Zaire is the "patrimonial" character of the state. 1/ Zaire is an absolutist state, controlled by a presidential monarch, Mobutu Sese Seko, and a political aristocracy. Building on the authoritarian state structure established by Belgium, Mobutu has consolidated his power with considerable external assistance through coercive administrative and financial means.

The state consolidated its power by absorbing the primary instruments of production (Zairianization decrees in 1973), controlling the inflow of external financial assistance, retaining access to internal credit mechanisms, and channeling most of the benefits of these to a small group of persons with political power.

The legitimacy of the Mobutu regime is based on its ability to call upon "'other centres of power...to make (its) power effective.'" 2/ External assistance, both financial and military, have been crucial to the Mobutu regime at critical times. Crawford Young notes the significance of military

assistance provided by the U.S.: "The sole importance of this aid is the impression it fosters, especially within Zaire, that Mobutu enjoys the backing of powerful external patrons." 3/  
A Weakened and Dichotomized Economy

The severe economic decline which began in 1974 has resulted in net capital outflows from Zaire. Even with a series of debt reschedulings, debt servicing as a percent of government expenditures increased from 11 percent in 1982 to 55 percent in 1985. Hardest hit by the austerity imposed on the economy were wages, goods and services, and investment. Not surprisingly, living standards in urban areas declined and productivity was affected by the necessity for workers to divert their efforts to meet the basic needs of their families. 4/

Janet MacGaffey argues that in spite of the monopoly by the state of much of the economic activity, a second strata of the ruling class is emerging from the commercial sector through the "second economy." The official economy of Zaire has been marked by "shortage of goods, (and) declining production and wages." MacGaffey argues that the second economy has been possible because "commodities are produced at low cost under non-capitalist relations of production and then sold for high prices in capitalist markets." 5/ MacGaffey argues that the expansion of the second economy has "provided a means for class formation outside the state, since it offers opportunities for capital accumulation independently of the state." 6/

Since the dominant state class "does not have any serious 'internal class competitors' for control of the state," 7/ there is currently no countervailing power to the state class.

Although MacGaffey may be correct, the prospects for the development of a middle class capable of challenging the current ruling class seems distant so long as the state class controls the flows of external assistance as well as the means of coercion.

#### Increasing Class Differences

Since independence in 1960, the economic and social gap between the few at the top and the masses has widened. By some estimates the standard of living for the common person has declined to US \$160 per year. The principal beneficiaries of post-independence policies have been those in positions with access to external resources.

The "patron-client" mentality instilled during the colonial period has remained, reinforced at the top since independence by the United States, who has become the "primary external patron of struggling Kinshasa regimes." 8/ The term used to describe the relationship which supports and reproduces the existing social and political patterns is "clientelism"--"a reciprocal pattern whereby those on top control those below." That system appears to be alive and well domestically, reinforced by a similar patron-client relationships at the international level.

#### Weak Institutional Environment

The dominant class or political aristocracy draws its basic values, power and economic base from the state by means of the bureaucracy. 9/ What David Gould calls "institutionalized corruption" and what Thomas Callaghy calls the "politics of appropriation" have become accepted as standard practice in the

bureaucracy of Zaire. Deteriorating economic conditions in general, and in the public sector in particular, have reinforced the "politics of appropriation." Circumstances force many civil servants illegally to hold two or more jobs in order to earn basic necessities for their families.

David Gould cites five changes in the bureaucracy between 1965 and 1979 which have allowed public administration to become "the tool par excellence for the state apparatus to recolonize the Zairian people": 1) politicization of the civil service; 2) impoverishment of the civil service; 3) administrative centralization; 4) downgrading cabinet-level ministers while increasing the power of the Presidency; and 5) daily violation of "principles" ascribed to publicly. 10/

Thomas Callaghy argues that the dominant political class has often assumed the status elements of positions but either neglects or is unable to fulfill many of their role functions. Thus he contends that they are unproductive and manifest a "weak sense of public purpose and collective or societal good." 11/ Offering extremely low wages and few benefits, it is not surprising that the government finds it hard to attract and retain qualified staff.

Civil servants have received only survival wages for years. MacGaffey cites an open letter written by 13 parliamentarians in December 1980 which stated that not even higher ranking civil servants could survive on their salaries. By their estimates, salaries were not even adequate to cover basic costs of food in Kinshasa, not to speak of housing, utilities, transportation,

clothes, school fees, etc. 12/ How do people survive? The common reply is "on se débrouille" ('one fends for oneself'), which implies participation in the "second economy." 13/

In spite of low salaries and benefits, public office remains the major avenue of upward mobility for much of the dominant class. The reason is that the office itself may provide opportunity for individuals to tap into a network of other opportunities internal and external to the government.

Participant-trainees returning to the Studies and Planning Service (SPS) entered not simply into public service but into a network of class relationships, informal institutional arrangements at odds with formal policy, and a severely deteriorating economic environment.

The interviews conducted in May 1986 reinforced the bleak image of the macro-environment to which participant-trainees returned after training. Participant-trainees faced enormous pressures from their families who thought they were rich. One person reported that when he met his uncle for the first time, the uncle asked him: "How many houses do you have?" After two and one-half years away, integration back into an environment which had deteriorated further while participants were in the U.S., enjoying perhaps the highest standard of living of their lives, was difficult indeed.

Participant-trainees resiliently coped with their situation. Some found new challenges in their work at the Studies and Planning Service (SPS), but in time, the majority found better opportunities outside the Department of Agriculture and left.

The following sections outline some basic concepts of the study: international training and development and the relationship of these to organizational and institutional development. These sections provide the basis for the theory of the role of international training in development and for the methodology used in the study.

#### International Education and International Training

In broad terms, international education and international training refer to learning experiences provided to persons across national and cultural boundaries. The terms education and training are sometimes used synonymously because both encompass learning experiences. Viewed more narrowly, education is primarily concerned with "opening out the world to the student" and focuses on knowledge while training is principally concerned with preparing individuals for specific lines of action and focuses on skill and action. 14/ In this study, international training is a combination of both education and training. At their best, international training programs provide complementary formal learning experiences which increase knowledge and skill and informal learning experiences which influence individual values.

Over the past three decades, there has been considerable interest in studying international education in the U.S. Much of that research has focused on foreign students in the U.S., their needs and related problems. 15/ In a 1981 review of international education research, Motoko Lee and colleagues reported that the major topics of research were academic

performance, adjustment to the U.S. environment, and non-return to the home country. 16/

More recently, interest in economic development, has led to increased studies of the "impact of foreign study on home-country institutions and on national development." 17/ But as Barber and colleagues point out, there is need for further research "because there is a genuine lack of good data and good studies on which to build." 18/

#### International Training Defined

International training refers to programs specifically designed to provide three types of learning experiences: academic studies, supplementary technical training courses, and informal experiences occurring naturally in the new cultural setting. The training program under the Agriculture Economic Development Project aimed to include all three components in each individual training program.

Much learning takes place informally outside the bounds of the formal study setting and the impact of informal learning experiences ought not be overlooked. Sponsored students are provided opportunities to experience life in the U.S. Through such experiences, individual values may be significantly influenced.

There are other more subtle forms of "informal" education. No individual living in the U.S. can easily avoid the constant barrage of information being communicated through radio and television. Other news media (newspapers, magazines, billboards, etc.) are available on nearly every street corner and provide

instant and constant exposure to values of contemporary Western society. These media provide both subtle and sometimes not-so-subtle messages about what is good and of value.

Thus, international training includes a variety of learning experiences, formal and informal, to which persons from other cultures are exposed while in the U.S. In general, the goal of international training is for individuals to increase their knowledge, to gain useful or adaptable skills, and to broaden their perspectives through exposure to a new culture.

#### Criticisms of International Education and Training

International education and training are promoted by development agencies as the means for enabling developing countries to develop. However, the value of international education and training for development has been questioned on a number of grounds, including the following: 1) politicization of training programs; 2) inappropriateness of international training; 3) socialization of trainees into a consumer culture; 4) shifting individual loyalties to centers of interest outside the home society (intellectually or culturally); and 4) creation of a sense of cultural marginality and alienation. 19/

#### Political Factors

Gunnar Myrdal has argued that "foreign study" often results in much "miseducation." What Myrdal refers to is not that individuals have received inadequate training but that the wrong group--the elite--are the ones who dominate training opportunities. He goes on to suggest that upon return to their home countries, foreign training is not well-used because elites

generally obtain jobs for which the training did not prepare them. 20/

In a highly politicized environment, such as in Zaire, the issue must be seriously considered. To what extent have politics dominated either the selection process of candidates and/or the utilization of the knowledge, skills and experience upon return? What has been the significance of the influence of political factors in the impact of the training program?

#### Appropriateness of International Training

Education and training orientations of Western industrial countries are not always adapted to developing country needs. In his examination of an "institution building" project in Thailand, James S. Coleman noted the persistence of "nagging doubts" about massive investments in a medical training facility there. At the core of his doubts was the question of the appropriateness of the research orientation in which the medical students were being trained. It was an orientation "not explicitly committed to an understanding and amelioration of the immediate problems of development in Thailand...." Would training turn out to be "unadaptable to the health care needs of the mass of the population?" 21/

A study of Brazilians trained in the U.S. also raised the issue of appropriateness of international training. The graduates themselves overwhelmingly indicated that on balance their U.S. training experience was positive. However, the report raised other important questions, including why graduates of U.S. schools (business schools here) are "often unable or unwilling to

adjust their newfound tools to the circumstances and challenging problems of their homeland." 22/ One persistent theme from the study is that "few of the American analytical techniques seem to apply without substantial adaptation to [Brazil's] changed circumstances." In the case of many M.B.A. earners, "the MNC [multinational corporation] is often the only place to put these newfound tools to work." 23/

The Brazilian study illustrates why it is be important to assess the impact of training in terms other than the attitudes of participants toward training. Although feelings about training are important, other criteria are needed to evaluate impact of training for development.

#### Enculturation and Alienation

The impact of informal learning experiences may be significant. According to Luiz Bevilaqua, education in the U.S. leaves an "indelible imprint" not only in the formal transfer of knowledge but also in the "assimilation of a powerful culture." Goodwin and Nacht found this to be most often the case among undergraduates studying liberal arts and doctoral students in the social sciences or humanities and much less often among technical graduates with relatively short stays in the U.S. Bevilaqua's own observations indicate that the process of "enculturation" sometimes leads to destructive cultural disorientation among young Brazilians who studied in the U.S. 24/ Thus, according to this study, age and maturity and length of stay in the U.S. appear to be related to the degree of enculturation and/or alienation experienced.

It would be a mistake to view international training participants as "tabula rasa" upon which training programs write their formulae. T. M. Maliyamkono points out that two types of outcomes of international training are possible. While agreeing that international students are not "sponges which can be saturated with water and squeezed out," Maliyamkono notes that in spite of the potential impact of the foreign culture, "Some students trained abroad have become more critical of foreign values than those who have never crossed the national borders." 25/

#### International Training and Development

The extent to which individuals return to their home countries and contribute to development depends to a great extent on how successfully individuals are able to integrate diverse overseas learning experiences with pre-training values and experience. The willingness and capacity of individuals to use their education and training for purposes of development in their home countries may be strongly influenced by the kind of training they receive. For example, Paulo Freire distinguishes two significantly different types of education. One he calls the "'banking' concept of education," and the other he designates as education which liberates. Although both are called education, the processes are quite different.

According to Freire, the one is a process by which "Education becomes an act of depositing, in which the students are the depositories and the teacher is the depositor. Instead of communicating, the teacher issues communiqués and makes

deposits which the students patiently receive, memorize, and repeat." 26/ In contrast "Liberating education consists in acts of cognition, not transferrals of information....Through dialogue...a new team emerges: teacher-student with students-teachers....They become jointly responsible for a process in which all grow. 27/

Freire argues that the outcomes are radically different. The one may succeed in transferring information, even useful knowledge (technique), but the other is a process aimed at creating within individuals a consciousness of "social, political, and economic contradictions, and [to encourage persons] to take action against the oppressive elements of reality." 28/

International training purports to provide learning experiences which are designed to enable persons to engage in the processes of development in their home countries. Are there indications that this is the case or not? To what extent are individuals and organizations able to find goals which satisfy the individual and organizational needs while making use of the training? How well-prepared are organizations such as SPS to utilize an influx of new trainees?

Integrating learning experiences with previous experience within a sometimes hostile environment in both self-affirming and developmentally useful ways is a complex task for which there is no blueprint. Kenneth D. Benne distinguishes six models of "man in transition" which reflect differing behavioral responses to training programs, ranging from the "easy convert, tourist and

expatriate models to the missionary, self-mystic and learner-critic models." 29/ According to this framework, the ideal model is that of "learner-critic"--the individual who is capable of integrating new knowledge, skills and values with the values of one's home culture. Achieving such a balance is a delicate task.

### Evaluating International Training

Much of the research on international training has examined training primarily for the purpose of making adjustments in the training programs. Very little work has been done to assess impact of training on development.

The American Agricultural Economics Association sponsored studies of agricultural economics training in the U.S. for internationals. 30/ The study included a mail survey and follow-up interviews of a sample of its membership in developing countries. Although the method of study was quite different than this study, a few of the results provide interesting points of comparisons.

The Association's results were generally consistent with the findings in this study. For example, the vast majority returned to their home countries and the majority were still living and working in their "native regions" (82 percent). For Africans, the rate was even higher (85 percent). Most were doing the kind of work for which they were trained. Eighty-one percent said the training was extremely useful. The respondents also faced similar problems to those interviewed for this study: jealousy of co-workers; promotions based more on personal relationships; and the disadvantage of being away for an extended period.

## Selected A.I.D. Research on International Training

The Agency for International Development and its predecessor (ICA) have been involved in international training for nearly a generation. The first comprehensive evaluation of AID participant training was undertaken by the Bureau of Social Science Research, Inc. (BSSR) in cooperation with AID in the early 1960s. AID sensed a need for "a systematic evaluation employing standardized content and methodology in all countries" for the purpose of collecting "uniform and meaningful information which could be used as a management tool in guiding the conduct of future training activities." 31/

The BSSR studies were carried out using a sampling of returned participants in 30 countries across all disciplines. Interviews were conducted with former participants to ascertain their views on their training and its subsequent usefulness. To a lesser extent interviews were also conducted with supervisors and U.S. technical advisors who were familiar with the careers of the participants.

Among other things, the BSSR studies found that the utilization of training was positively correlated with factors such as participant satisfaction with the program, involvement of both the participant and the supervisor in the planning of the training, and contact with AID after the completion of training.

Interest in evaluating training has ebbed and flowed over the years. In the first half of the 1980s, interest began to increase. Tom Moser and Laurel Elmer reviewed 206 AID participant training evaluation studies, and discovered that, among other things, most of AID's evaluations of training have

been "limited to operational issues rather than to the effectiveness of long-term impact of training." 32/ One of the principal recommendations of Moser and Elmer was that AID make an effort to develop "A set of measures for assessing the impact of training on participant job performance and home country development...." 33/ The review concluded that a good beginning point would be the previous research carried out by the American Institutes for Research (AIR) in the 1970s. While not breaking new ground, the review provides a useful synthesis of past evaluation efforts and suggests direction and priorities for moving ahead while capitalizing on past efforts.

The overall goal of the AIR studies was to develop and test a methodology for assessing the impact of participant training on development goals. 34/ The essence of the approach taken by AIR was to develop indicators of impact based on "critical incidents" which were judged to be outcomes attributable to training. The approach was to "begin with the identification of visible improvements or achievements, and then trace these 'backward' to their antecedents if any, in the training experiences the participant had received" (underlining in the original). 35/ Impacts were found in four broad areas: 1) development targets, 2) institutional outputs, 3) outside support, and 4) internal operations. Not all forms of "impact" are "highly dramatic," but the study concludes that impact must be seen as "a sequence of events." 36/

The study developed prototype indicators and questions based on a three-point "impact sequence:" identification of the impact

(20 categories); identification of the impact-producing characteristic (14 categories); determination of degree of attributability (5 levels).

In spite of these extensive efforts, Raga S. Elim critiqued the AIR effort and recommended "that no follow up on this study be made and that consideration of any future impact assessment should await further development of the state-of-the-art." 37/ Elim's recommendation was based on his judgment that while one can ascertain the existence of impact, one cannot measure the extent or degree of impact nor can one solve the problem of how to attribute impact at the national level with inputs such as participant training.

Some of the issues raised by previous research are discussed in chapter three. The methodology developed for this research takes seriously the challenge of searching for a means of assessing impact of training for development. The next section explores the concept of development outlined in chapter one.

### Development

The concept of development has changed significantly over the past three decades. The popular perception in the industrial West during the 1950s and 1960s was that development meant modernization. Economic debates were dominated by the "stages of growth" doctrine formulated by Walt W. Rostow. Development was thought to progress in linear fashion from lower levels to the stage of "take off." It was assumed that all countries were expected to follow the same path. Development was defined principally in terms of economic growth.

In calling attention to the limitations of models of development and by pointing out issues ignored, alternative perspectives have gained prominence. Theories of imperialism, dependency, underdevelopment, and socialist development have raised questions about the importance of the role of monopoly capital, the structure of international capitalism, the causes of underdevelopment, the role of multinational corporations, the presence of many more competitors, and others.

Experience has demonstrated that development requires more than economic growth. In 1980 the Brandt Commission stated that the focus of development efforts "has to be not on machines or institutions but on people....We must not surrender to the idea that the whole world should copy the models of highly industrialized countries." 38/ The Commission's report went on to remind of the need to "avoid the persistent confusion of growth with development" and called for development that will "lead to self fulfillment and creative partnership in the use of a nation's productive forces and its full human potential." 39/ The Report called for attention to "the quality of growth" and the important differences in the value-systems which are essential to cultural identity which gives people dignity.

Development involves questions of income distribution, basic human needs, participation in decision-making by those affected, and sustainability of development processes within the limits of available resources. Development must be concerned with who gets what, when, where, and how just as much as with economic growth.

There is another dimension of development. Development processes are not automatically progressive, resulting in

improvement for all persons. In the words of Irving Markovitz, "Development is a cruel process with no great happy ending, no limitless progress." 40/ Where there are major differences in resource distribution, some processes of change may reinforce and enlarge existing differences. As long as resources are scarce and there is differential access to resources, the potential for conflict resulting from change is great.

To assess the contribution of training to development, one must understand who has reaped the benefits and who has borne the costs of that training. Education and training do not automatically insure that social development will take place.

#### Values and Development

Development is fundamentally an issue of values. Values permeate every dimension of human life, infusing meaning and worth into human experience. Though not always apparent, values structure our thinking, inform our judgment, and influence our behavior. At the same time, values are shaped by forces outside of the individual. Human decisions and behavior are products of the interplay between the unique combination of personal qualities defining and enlivening the self and external forces which impinge upon the self. The character and quality of decisions and behavior are products of both what an individual brings to life's experiences and the forces of that individual's environment. The dominant forces vary from one environment to another. Physical, economic, political, social or even cultural forces may play dominant roles within particular environments. Individuals are neither complete masters of their fates nor

simply unique responses to external forces. Change occurs as individuals and groups interact with the forces in their environment. Whether a particular change represents development or not depends on the values which that change helps to create.

There are at least three important ways in which the term development can be meaningfully used: development as vision, as product, and as process. Each represents values.

#### Development as Vision

Development as vision expresses an image of the future which individuals or groups want to realize. That vision encompasses beliefs about the human condition, the good life, and the good society. 41/ Taken together, these form a paradigm or world view which answers the question of meaning and provides the basis for personal commitment and action. Development as vision reflects a perception of the world--a perception of what is real, what is possible, and what is desirable.

Meeting the basic human needs of all persons is an expressed goal of many countries. That goal reflects a value that says all persons are of worth and should be enabled to sustain their lives. On the basis of that vision of development, policies and programs may be created reflecting that vision in order to realize that value. Jon Moris has stressed a similar idea in his discussion of the role of ideology:

First, for any poor nation...the concept of development must remain an ideal....The one novel resource a poor country has is the potential for devising better images of possible futures--'scenarios' if you will--and then finding steps leading in the desired direction. 42/

A vision of development may be more practical than often realized. Of course, visions of development vary widely. To work effectively across cultures, it is useful to understand the values on which one's vision of development are based.

There are two levels at which some agreement is useful. First, mutuality or trust is required to begin the process of understanding the concepts and underlying values used to define development. This mutuality provides a beginning point which can lead to procedural or substantive agreement. At a minimum, there must be agreement on normative terms, procedures and a basic commitment to the process of understanding the significance of values in development. 43/ Beyond procedures, explicitly stating the basic assumptions (value judgments) about development provides at least a basis for understanding and respect, if not agreement. The following section outlines the basis for the concept of development used here.

#### Core Values

Denis Goulet argues that in all societies there are at least minimal demands for survival, identity, solidarity, and dignity which give rise to three "core values:" life-sustenance, esteem, and freedom. 44/ Although the exact content varies, all cultures have "core values" which form the irreducible essence of their "existence rationalities." The only justification which can be given for core values such as these is that they are intrinsic to being fully human. These values are weighted differently from one society to another, but without them in some measure, individuals cease to be human.

Godfrey Gunatilleke argues that there are some essential goals of development. Gunatilleke identifies three clusters of development goals based on values that reflect the social dimensions of human needs. He identifies a "growth" cluster, an equity cluster, and a participation cluster. 45/ He argues that without growth, some sense of equity and participation, development is not taking place.

From Gunatilleke's perspective, these development goals must be pursued simultaneously because all are essential parts to a holistic understanding of development. Although he acknowledges that priorities do have to be set, he argues that none should be seen merely as an instrument to the others and that all must be kept within the field of vision of development.

This study follows Goulet and Gunatilleke, in assuming that there are essential values upon which development is based. Some of the values reflect needs of individuals. Others represent needs of individuals in community. Life-sustenance, esteem, and freedom are essential to the integrity of individual human life. Equity, participation, and growth are essential to the life of human community. To the extent that processes of change lead to the realization of these fundamental values, those processes promote development.

Development is more than a vision of possible futures. To be made concrete, a vision of development must be expressed in the processes and the products of society.

#### Development as Product

Products or outcomes are the values created by persons,

individually or in groups. The products of development include those most basic to sustain physical life. Individually, farmers till the soil and raise livestock to produce food and other products while artisans labor to produce other goods to be traded for food. Nationally, output is measured as GNP--gross national product--an economic measure of society's productive efforts. Tools (technology) and organization of work are both products of society and the means by which other values may be realized.

Norman Uphoff and Warren Ilchman have defined development from a political economy perspective as a process which involves "alterations in human activities and attitudes such that what are called economic, social, and political relations become more productive for more people." 46/ Thus, "Productivity represents capability over time to satisfy human needs and desires, not only materially with goods and services but in other respects as well." 47/

Re-focusing development on people has increased awareness that the products of economic growth are not ends in themselves but means to meeting "basic human needs." As Paul Streeten pointed out, a basic needs approach focuses on concrete needs of human beings: "...health, food, education, water, shelter, transport, simple household goods, as well as non-material needs like participation, cultural identity, and a sense of purpose in life and work, which interact with the material needs." 48/ Products are the outputs of productive processes that allow humans to satisfy their basic human needs more effectively and the means of realizing the essential value of "life-sustenance."

## Development as Process

Development is commonly referred to as a process. More accurately development involves many processes of change. Development is an inherently dynamic concept, which inevitably implies change. There are many change processes which are either beyond the control of individuals and society or over which humans have limited control. Technological change is a prime example. Other processes of change are facilitated by human decisions and their effects may be far-reaching.

Education and training are intentionally designed processes which aim to increase human capacities to be more productive and to find meaning and satisfaction in living. Whether education is provided to all persons in society and what kind of education is provided are developmental decisions which help to shape society. Which processes of change are promoted and opposed help to shape which values of development are realized most fully.

## Participation

Development necessarily involves changes in the ways people do things and think about things. The patterns of those "human activities" are often crucial to the processes of development. For example, students of development increasingly recognize the vital importance for people to participate in all levels of decision-making which affect them. David Korten argues that development, if it is to occur at all, must be a "learning process" in which the potential beneficiaries must have opportunity to articulate their own needs and to utilize their own capacities in processes of development. 49/ In this view

development not only taps the available resources but creates new relationships essential to development as well. There is a sense in which development is as much the process as the product. A participatory process may be most productive.

### Equity

Uphoff and Ilchmann also point out that development means that new activities and attitudes make "economic, social, and political relations more productive for more people." 50/ The concept of productivity may be applied to farming (increased food and fiber), education (increased knowledge), government bureaucracy (increased outputs or service) or other activities and relationships. Development means that increasing numbers of the population are benefiting from social change.

### Sustainability

Development is principally concerned with increasing capacity to realize essential human values, both individual and social, which can be sustained indefinitely. 51/ A sustainable activity must address a felt need in order to mobilize necessary resources and political support and must find an institutional mechanism to insure adaptability. 52/ In the long run, development activities must be able to tap indigenous resources. Without an indigenous resource base, development processes are highly dependent and subject to arbitrary decisions which cannot be readily controlled or influenced. A more truly ecological perspective is required in order to identify and develop domestic resources capable of sustaining development processes.

Sustainability is an issue which must be faced by farmers and bureaucrats alike. What are the sources of needed inputs? Who will consume the outputs produced? Donor assistance may not last forever.

#### Organizations and Institutional Development

Although the terms are often used interchangeably, "organization" and "institution" are not one and the same. 53/ Daniel Bromley says organizations are the "physical manifestation of a complex set of rules and conventions (institutions)" [parentheses in original text]. 54/ When organizations embody institutional characteristics--established patterns of behavior--there is a tendency to identify the organization as the institution. While overlapping, they are not identical.

#### Organizations

In simplest terms organizations are associations of people. Organizations are formed as people with individual needs and interests associate themselves and organize their resources within the constraints of their environments to accomplish certain objectives. 55/ The purposes of associations may be as diverse as the intrinsic value of being together, altruism or social approval, or the achievement of some specific benefit. In spite of the wide diversity of functions, Peter Blau suggests all social units are formed because the association is of value or profit to the individuals. 56/ However, organizations soon develop a life of their own with needs and goals which transcend those of individual members.

Although an organization has goals which transcend the goals of individual members, its attempts to pursue those goals rationally (in a goal-directed manner) are influenced by both internal and external pressures. Because of these pressures, organizations are inevitably deflected from purely rational goals. An organization must "cope" with its "internal environment" and "fit" itself to its external environment. 57/

Internal and External Pressures 58/

Internal pressures are created by factors such as individual member values and goals, cognitive limitations, differing levels of identification with organizational goals, and staff turnover. For example, integrating new staff and recycling old staff requires much time and resources. This is bound to influence the pursuit of other organizational goals.

One of the major challenges faced by SPS was to find ways to integrate participants trained in the U.S. back into the organization. Since the problem of retention has been a serious one for SPS, the study explores how the goals of returned participants created unique pressures on the organization and its goals. What did SPS do to integrate staff back into the organization?

External pressures include the behavior of other organizations as well as the inevitable limits of an organization's capacity to anticipate the future. Having relatively low status within the ranks of bureaucracy, the DOA in Zaire faces powerful external pressures as it competes for resources and influence and tries to juggle demands from other

DOA agencies, other GOZ departments, and other outside organizations such as international donors. How an organization learns to cope with the pressures from its internal and external environments determines whether it survives and what type of institutionalization takes place.

William Smith and colleagues distinguish three types of power within an organization: control, influence and appreciation. 59/ Organizations have most power (control) over internal pressures and least power (appreciation) over external pressures. Survival and growth of an organization depends on how well it manages its internal pressures and the extent to which it is able to exercise or increase its influence with organizations external to it whose decisions can affect the focal organization.

Organizations have needs as well as goals. These needs are expressed through the linkages or exchange relationships which relate an organization to its environment. Functional linkages are one of four types of linkages which Milton Esman and others have identified in their analyses of institutions. 60/ An organization needs inputs from its environment simply to survive. These inputs may be personnel, budget, information or other resources. Without such inputs an organization cannot survive for long. In the long run an even more important need of an organization may be acceptance of its outputs by others outside the organization. Without acceptance of its outputs--its products or services--an organization is unlikely to survive.

There are obvious exceptions. Organizations may survive because they are subsidized. The colonial history makes it clear that externally imposed organizational arrangements may be

maintained for many years with adequate subsidies. But if an organization's functions are not rooted in the domestic environment, institutional development has not taken place. When the subsidy is withdrawn, the institutional arrangement collapses. A shell of an organization may survive without performing the intended institutional role. 61/

Subsidies raise a number of questions related to the issue of sustainability of institutions. This is possibly the most difficult question related to institutional development. What types of institutional arrangements has the subsidy encouraged? Are the institutional arrangements which have evolved consistent with the mission of the organization? What is the nature of the incentive structure which the subsidy has put in place? Is that structure consistent with the explicit mission of the organization? What are the prospects that the subsidized functions can be maintained if the subsidy is withdrawn? Will there be a surviving organization and/or an institution in place? The experiences of agencies providing technical assistance confirm that building an organization is relatively easy. Institutional development is something else! 62/

### Institutional Characteristics

Douglas Bunker distinguishes institutional characteristics along two lines: 1) universalistic and particularistic and 2) formal and informal. 63/

Illustration 3: Universalistic and Particularistic Aspects of Social Institutions

	Universalistic	Particularistic
Formal	Statutes  Administrative policies, regulations, and programs  Judicial decisions-- Case Law	Charters and bylaws for focal organizations and networks  Authority structures  Organizational designs  Job descriptions
Informal	Value orientations  Customs of thought and practice  External status systems	Internal status systems  Informal roles  Reciprocal expectations  Group norms  Emergent relationships  Shared attitudes toward the organization and its purpose

SOURCE: Douglas R. Bunker, "Understanding and Practicing Institution Building: Concepts for a Theory of Practice," p. 15 in Chapter 2 in Bunker's forthcoming Building New Social Institutions: The Case of National Health Planning. Reproduced in Melvin G. Blase, Institution Building: A Source Book. Revised ed. (Columbia, MO: University of Missouri Press, 1986), p. 35. Where formal institutional structures are weak and lack

authority, informal relationships take over their functions. For example, although a formal authority structure may exist to structure the chain of command by function, formal structures often are replaced in practice through informal roles. In such cases, actual authority is shifted outside formal structures.

Bunker argues that "Successful institutionalization of...social patterns requires coordinated and complementary

efforts to build support for the new action pattern in [all] four aspects of social systems...." 64/ Potentially, institutional arrangements in any of the four quadrants affect the development of particular institutions. This reinforces the perspective presented here that institutional development is an interdependent process requiring an understanding of individual behavior and organizational patterns within their contexts.

#### Institutional Development: Two Major Approaches

Two other approaches to institutional analysis provide complementary perspectives. One stresses "rules" and the other focuses on "roles." Vincent Ostrom defines an institution as "any rule-ordered behavior." Understood as rules and norms, institutions function as guides to behavior. As such they delineate categories of "prescribed, permitted, and prohibited behavior in social relationships." 65/

In contrast, Norman Uphoff defines institutions in terms of "roles" which become "infused with value." 66/ Institutions, understood as roles, function "to facilitate coordination among people, and to help people form expectations." 67/ Both perspectives are important to understand how societies develop mechanisms that allow individuals and groups to coordinate their efforts and develop their capacities to accomplish collective objectives. Both rules and roles are central dimensions of institutions of all kinds.

#### Institutions as "Rules"

Larry Kiser and Elinor Ostrom have developed a framework

for looking at micro-institutional behavior. Kiser and Ostrom distinguish institutional arrangements and organizations as follows:

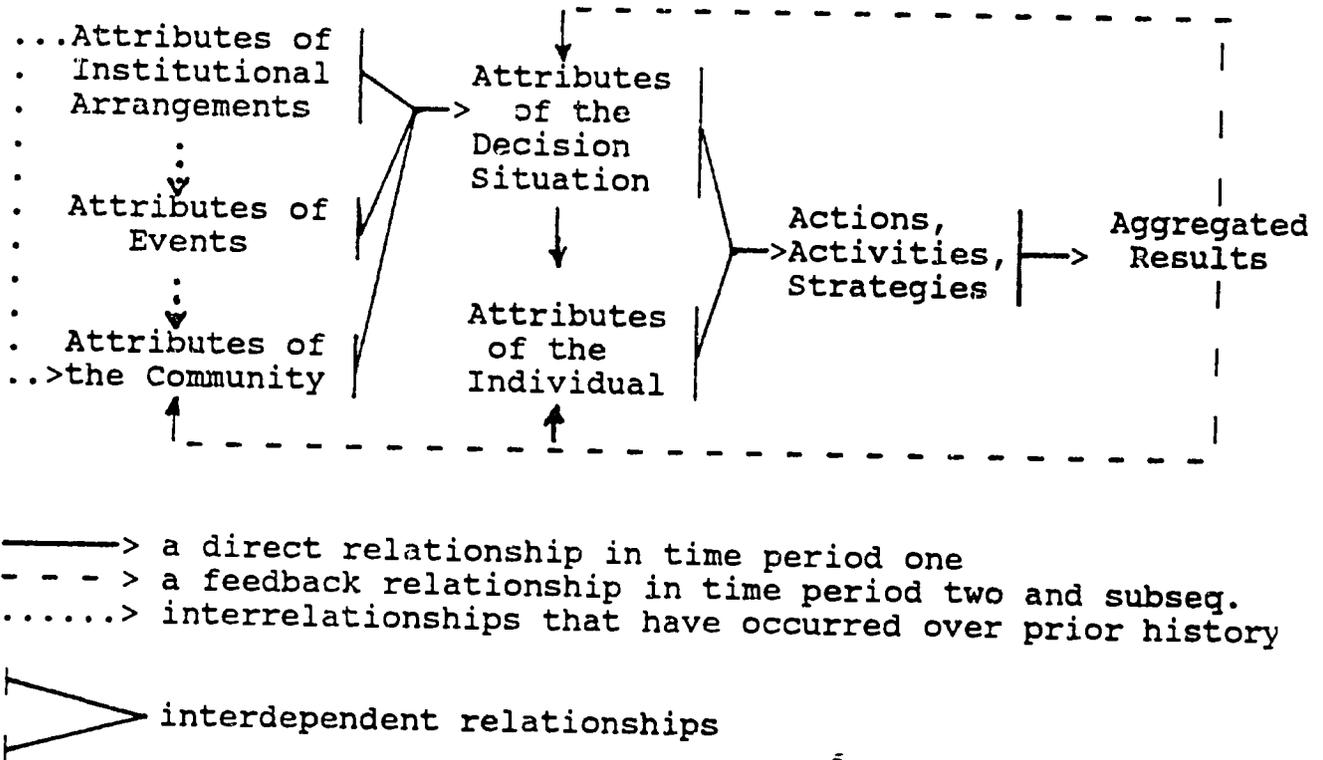
We define organizations as composites of participants following rules governing activities and transactions to realize particular outputs.... The rules, which are components of all organizations, are the institutional arrangements. 68/

By this definition, rules are the essence of "institutionality." The framework shows that individuals take action based on decisions made within a particular context. Every decision situation includes the individual making a decision within the context of events, a community and institutional arrangements. There are three levels of institutional arrangements: the operational or individual level, the collective choice level, and the constitutional level. 69/

The operational level is the only level at which decisions may lead to direct action. Individuals may act directly on their choices. The collective choice level includes rules which guide action. The constitutional level includes rules for making or changing rules. The "rules" (institutional arrangements) at each of these levels provide the guidelines within which expectations are formed and relationships are established.

The "workability" or effectiveness of institutional arrangements is dependent on the confidence and/or acceptance of the people affected. Confidence and acceptance are increased if there are shared values, there is a sense that the arrangements (rules) are fair, there is the expectation that others will also follow the rules, and if there is enforcement. Due to the high

Illustration 4: A Framework for Institutional Analysis



Source: Adapted from Larry Kiser and Elinor Ostrom, "The Three Worlds of Action: A Metatheoretical Synthesis of Institutional Approaches," in Strategies of Political Inquiry, edited by Elinor Ostrom, Beverly Hills, CA: Sage Publications, 1982), p. 187.

cost of enforcement, institutional arrangements work most effectively in situations where the need for enforcement is minimized. 70/

The "rules" model of institutions is helpful in distinguishing the "levels of choice" in institutional arrangements and in showing how institutional arrangements "structure" situations, thereby influencing individual and collective choice. The model makes it clear that individual action and even collective choice can be properly understood only when examined within context. The model also specifies conditions which are important to effective functioning of

institutional arrangements. In their discussion Kiser and Ostrom remind us that when individual choices are aggregated the results are often quite different than that intended by individuals.

The "rules" approach to institutional analysis provides an important but rather one-dimensional approach to understanding institutions. It helps explain the structural dimension of institutions but does not explain what gives life and novelty to institutions. The "roles" approach to institutional development addresses this dimension more effectively.

#### "Role" in Institutional Development

Norman Uphoff distinguishes "structural" and "normative" explanations of the process of institutional development. Structural explanations focus on the influence of the situation and context on behavior whereas normative explanations focus on values and personal convictions as the principal determinants of behavior. 71/ Uphoff contends that both types of explanations must be taken into account to explain institutional development because they are linked: "The two do not represent alternative realities but rather provide different and reinforcing insights into the same phenomena." 72/ Uphoff sees the linkage as follows:

First, the expectations which structure roles are rooted in people's norms and values, and second the way certain values are rewarded and reinforced, while others are not, will structure situations [and] contribute to some convergence of interests and ideals. 73/

There is interaction between norms and structure. Roles become the focal point for that interplay.

Uphoff's research demonstrates the important place of roles and values in the processes of institutionalization. Both

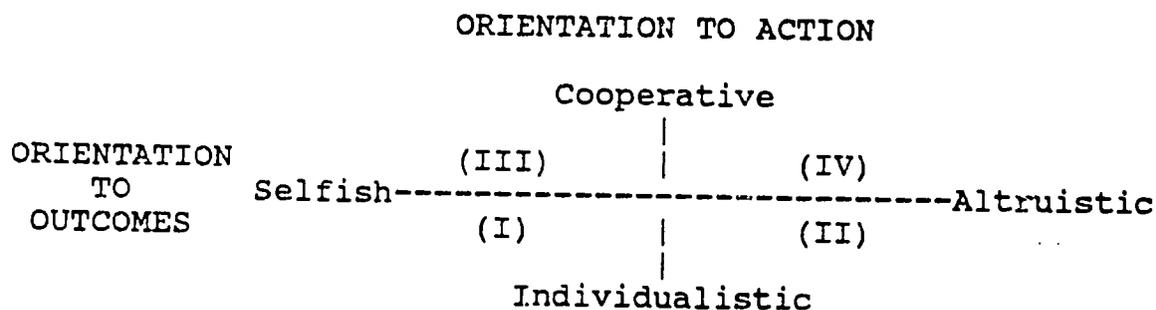
individuals and organizations fulfill roles. Over time, as the activities which define a particular role are repeated, they become valued by their environment. 74/ Institutionalization takes place when roles are accepted by their environments and when their performance is maintained in spite of changes in personnel occupying that role. 75/

While recognizing that both structural and normative factors influence institutional development, Uphoff stresses the dynamic potential of roles. Development requires "Not just knowledge but motivation...and 'expectations' from many sources...for continuity." 76/ The unique contribution of roles is accomplished through "mobilizing material and moral resources and...channelling these toward increased well-being...." He found that new roles "focused leadership talents, imagination, moral commitments...on solving problems, and [on] giving rein to certain normative impulses....Something was, in effect, created out of nothing, or at least out of relatively little." 77/ Roles are the point at which life and novelty are generated in institutions. They represent the dynamic dimension of institutions.

Uphoff's framework also explains how values may be differentially realized and shows that values other than purely economic ones play important roles in institutional development. He states, "The key fact is that the effect of values depends on context, and on how competing values get reconciled by individuals." 78/ At the heart of his theory is the assumption that individuals hold a large "repertoire" of values. For example,

Uphoff contends that all people "have both individualistic and cooperative orientations to action." The extent to which either value is realized depends on the "climate" or the context within which individuals function. 79/

Illustration 5: Orientations to Action and Outcomes



Source: Norman Uphoff, "Developing Water Management Institutions in Sri Lanka: Understanding Collective Action and Managing Common Resources." Paper prepared for ASPA annual conference, Bloomington, Indiana. March 1985 (Mimeo).

The framework does not deny that particular values may be predominant in a particular situation. For example, economic values may be predominant in many situations. However, experience shows that economic motivation does not explain all behavior. Values such as solidarity, reduction in conflict, creation of a spirit of "unity," increased self-respect and pride, feeling of fair treatment for everyone have been found to be important motivations in promoting cooperation among farmers in Southeast Asia.

#### Institutional Climate

Robert Bates states that politics (including state interests) is the potent force determining the "supply" of

institutions in a given society. By "supply" Bates means what kind of institutions develop and survive within a given society. 80/ While the International Monetary Fund pressures governments to curb spending, the ranks of government bureaucracies are constantly increased, even when the managers of those agencies do not want additional staff. In such instances the supply--the enlarged government bureaucracy--is determined by politics rather than demand for outputs or services which may express non-political factors.

The literature review suggests that the politics of the absolutist State in Zaire has a great deal of effect on the supply of institutions. The "politics of appropriation" is itself a widespread pattern of behavior which has been created in part by the absorption of the means of production and the major sources of credit by the State and their allocation to a small group of persons. If the "politics of appropriation" is an institutionalized pattern of behavior in Zaire, one can expect to find an institutional climate which determines to a great extent expectations, and in turn, behavior.

#### Other Institutional Qualities

##### Legitimacy

There are a number of institutional qualities which are suggested by various writers as characteristic of institutions. 81/ Legitimacy is one rated by some to be of paramount importance. Wesley Bjur states: 'Being valued in the social or institutional environment is part of, or the same as, being considered legitimate in one's institutional role and

function(s).' 82/ Kenneth Boulding defines legitimacy as "...acceptance of an institution or organization as right, proper, and acceptable." 83/ Boulding identifies six sources of legitimacy: positive payoffs, negative payoffs, time dimension, mystery and charisma, communication through accepted symbols of legitimacy, and alliances and associations with other legitimacies.

In discussing 'institution building,' Bunker argues that there is a 'serial order of developmental tasks' proceeding from 1) 'minimum levels of legitimacy,' to 2) 'operational competence,' to 3) 'active and continuous exchanges with the environment,' to 4) 'the development of adaptive capacity.'84/

Two attributes make legitimacy a particularly significant indicator of institutionality: priority and cumulativeness. Unless an organization is put in place and maintained by sheer force, all organizations must have or achieve a minimum degree of credibility. Other institutional qualities develop over time and legitimize the role or functions of the organization.

Bjur argues that legitimacy is a cumulative phenomena--it increases over time as an organization comes to be accepted in its "identity role" and in that it is always better to possess 'a half-dozen role-legitimizing qualities than to be perceived as demonstrating only one or a few.' 85/ Boulding's six sources of legitimacy may be used as indicators of the institutional character of an organization.

The sources of legitimacy on which an organization depends shape the type of institution. For example, if the legitimacy of an institution is highly dependent on the legitimacy of an ally,

especially a larger, stronger ally, the stability of the former will be highly dependent on factors largely beyond the control of the institution. If that larger, stronger ally is also the principal source of funds, the organization's legitimacy base is even more tenuous. Long-run survival requires diversification of the sources of legitimacy.

Other institutional characteristics which reflect the extent and quality of institutional development are survivability, capacity to perform, continuity of function (roles), sustainability and use of indigenous resources. Institutional characteristics are interdependent and are generally significant to the organization's survival in the long-run.

How valuable is SPS to others? What role(s) is SPS performing that are in demand? How well does SPS perform these roles? The answers to these questions help to answer the question of institutionalization within SPS.

### Conclusion

The literature underlying the analytical framework suggests institutions develop in response to multiple factors, internal and external, interacting within a particular context. Events and institutional arrangements at the macro-level provide the general context within which individuals and organizations function at the micro-level. At the same time, decisions and actions of individuals and sustained organizational activities at the micro-level express the values and priorities of the emerging institution within its context. While influenced and shaped by factors external to the organization, the institutional

development of the organization is not necessarily determined by the macro-level environment.

Whether or not particular institutional qualities take root and are sustained in the existing macro-environment and whether or not the international training program has been a significant factor in these processes are empirical questions addressed in the research.

The following chapter sets forth preliminary hypotheses, discusses the rationale for the methodology, and discusses fieldwork in Zaire.

NOTES - Chapter 2

1/ Thomas M. Callaghy, "External Actors and the Relative Autonomy of the Political Aristocracy in Zaire," Journal of Commonwealth and Comparative Politics 21 no. 3 (1983):62. "Patrimonialism" is a system of rule in which the appropriation of political office is the elite's major source of prestige and reward and is further characterized by territorial fragmentation, primordial and personal loyalties, and private armies as the chief instruments of rule. (David Gould, Michael Schatzburg and Callaghy follow Jean-Claude Willame whose work is based on the analysis of Max Weber). See David J. Gould, Bureaucratic Corruption and Underdevelopment in the Third World: The Case of Zaire, New York: Pergamon Press, 1980, p. 28; Michael G. Schatzberg, Politics and Class in Zaire: Bureaucracy, Business and Beer in Lisala, New York: Africana Publishing Company, 1980.

2/ Ibid., p. 63, quoting Arthur Stinchcombe.

3/ Crawford Young, "The Zairian Crisis and American Foreign Policy," in African Crisis Areas and U.S. Foreign Policy, edited by Gerald J. Bender, James S. Coleman, and Richard L. Sklar. (Berkeley, CA: University of California Press, 1985), pp. 214-219.

4/ The World Bank, Eastern and Southern Africa Regional Office, "Towards Sustained Growth: The Need for Structural Adjustment: A Progress Report to the Consultative Group for Zaire," Paris, April 21-22, 1986, p. 2.

5/ Janet MacGaffey, "How to Survive and Become Rich Amidst Devastation: The Second Economy in Zaire," African Affairs 82, no. 328 (1983), 351. The dominant class in Zaire is not homogeneous. MacGaffey distinguishes two strata: the "political administrative" (the presidential clique holding powerful or influential political and economic positions) and the newly emergent "commercial middle class." The three groups forming the "state class" or "political aristocracy" identified by Callaghy corresponds to the political administrative strata of MacGaffey, but also includes some military officials and foreign advisers.

6/ Ibid., pp. 362-363.

7/ Callaghy, "External Actors," p. 71.

8/ Nzongola-Ntalaja. "United States Policy toward Zaire." In African Crisis Areas and U.S. Foreign Policy, edited by Gerald J. Bender, James S. Coleman and Richard L. Sklar. (Berkeley: University of California Press, 1985). p. 4.

9/ Callaghy, "External Actors," p. 67. The central role of the state in class formation in Zaire is underscored by Schatzberg when he quotes Jean-Marie Wautelet: "'For as much as this centralized management is accompanied by a marked extension of the state control of economic activities, it is naturally

through its control of the state that this group [the bourgeoisie] progressively gives itself an economic base.'" (Schatzburg's brackets). Quoted in Michael G. Schatzberg, "Explaining Zaire," African Affairs 569-573, reviewing two books, including "Accumulation et Sous-Developpement au Zaire 1960-1980, Fernand Bezy, Jean-Philippe Peemans, and Jean-Marie Wautelet. Louvain-la Neuve: Presses Universitaires de Louvain, 1981.

Definitions of social class vary. Michael Schatzberg defines "social class" in dynamic terms as "the manifestations of a process by which allied actors obtain or lose, open up or close off, become increasingly or decreasingly conscious of access to life and mobility chances." (Schatzburg, p. 28) He also notes the crucial role which scarcity plays in class formation. He suggests "the awareness of scarcity" leads to feelings of insecurity and possibly increased class consciousness. (p. 30) In contrast, Irving Leonard Markovitz states: "'Class' implies a system characterized by conflict, not simply a hierarchy of inequalities. Objectively, classes can exist regardless of whether or not the people that compose these various groups are conscious of their situation." (See note 41, p. 9.)

10/ David J. Gould, Bureaucratic Corruption and Underdevelopment in the Third World: The Case of Zaire, (New York: Pergamon Press, 1980), p. 61.

11/ Callaghy, "External Actors," p. 68.

12/ The 'Institut National de la Statistiques' estimated that "an average monthly food budget for a family of 6 in 1984 was equivalent to Z3037 [about US \$92.00], while the base monthly salary for a medium-level civil servant was Z750 [about US \$22.73]." In July 1984 a 50 kg sack of manioc--about a month's supply for an average family--in Kinshasa was Z800 [about US \$24.24]. Cited in Zaire Economic Memorandum: Economic Change and External Assistance, World Bank Report No. 5417-ZR, March 29, 1985), p. 46. [NB: February 24, 1984 the exchange rate was Z33.0 = US \$1.00]

13/ MacGaffey, "The Second Economy in Zaire," African Affairs 82 (1983), 354-355.

14/ Rolf P. Lynton and Udai Pareek, Training for Development, (West Hartford, Conn.: Kumarian Press, 1978), p. 7.

15/ Motoko Y. Lee, Mokhtar Abd-Ella, and Linda A. Burks, Needs of Foreign Students from Developing Nations at U.S. Colleges and Universities, edited by Stephen C. Dunnett. (Washington, D.C.: National Association for Foreign Student Affairs, April 1981). See especially the review of literature, pp. 3-20.

16/ Lee, Abd-Ella and Burks, Needs of Foreign Students, pp. 4-5.

17/ Elinor Barber, Philip G. Altbach, and Robert G. Myers, ed., "Introduction: Perspectives on Foreign Students," Special Issue: "Foreign Students in Comparative Perspective," Comparative Education Review 34 (May 1984), 163-164.

For a more comprehensive, though somewhat dated review, see Seth Spaulding and Michael J. Flack, The World's Students in the United States: A Review and Evaluation of Research on Foreign Students (New York, N.Y.: Praeger, 1976) and Michael J. Flack, "Results and Effects of Study Abroad," Annals of the American Academy of Political and Social Sciences 424 (March 1976).

18/ Ibid., p. 166.

19/ Gerald W. Fry, "The Economic and Political Impact of Study Abroad," Comparative Education Review (May 1984):208-209. Also in the same volume, Joyce Lewinger Moock, "Overseas Training and National Development Objectives in Sub-Saharan Africa," 229-238.

20/ Myrdal, The Challenge of World Poverty p. 207.

21/ James S. Coleman, "Professorial Training and Institution Building in the Third World: Two Rockefeller Foundation Experiences," Comparative Education Review 28 (May 1984):189.

22/ Craufurd Goodwin and Michael Nacht, Fondness and Frustration, (New York: Institute of International Education, 1984), n.p., (Preface).

23/ Ibid., p. 11.

24/ Ibid., n.p., (Preface).

25/ T.M. Maliyamkono, Overseas Training: Its Impact on Development (Dar Es Salaam: Eastern Africa Publications, 1979), p. 20.

26/ Paulo Freire, Pedagogy of the Oppressed(New York: Herder and Herder New York), p. 58.

27/ Ibid., p. 67.

28/ Ibid., p. 19.

29/ Cited by Lynton and Pareek, Training for Development p. 300

30/ Darrell F. Fienup and Harold M. Riley, Training Agricultural Economists for work in International Development, (New York, N.Y.: Agricultural Development Council, June 1980). The first initiative of the AAEA was undertaken in 1974 and resulted in regional conferences, annual meeting sessions and papers published in L.P. Schertz, A.R. Stevenson, and A.M. Weisblat, ed., International Training in Agricultural Economic

Development, International Committee of the AAEA, (Agricultural Development Council, Inc., 1976).

31/ Forrest E. Clements and Albert E. Gollin, Evaluation of the Technical Training Program in United States Foreign AID, (Washington, D.C.: Department of State, Agency for International Development, December 1964), p. 4. According to a typed notation on the typescript in the AID Library in Rosslyn, VA, this was a special report prepared for the meeting of the Development Assistance Countries (DAC) scheduled in Paris early in 1965. Also the final report, A.I.D. Participant Training Program: The Transfer and Use of Development Skills. An Evaluation Study of U.S. Technical Training Programs for Participants from Underdeveloped Areas, Washington, D.C.: U.S. Department of State, Agency for International Development, 1966.

32/ Tom Moser and Laurel Elmer, Review of Participant Training Evaluation Studies, AID Evaluation Occasional Paper No. 11, (Washington, D.C.: U.S. Agency for International Development, Center for Development Information and Evaluation Bureau for Program and Policy Coordination, May 1986), p. xi.

33/ Ibid., pp. xiv, 41.

34/ For a summary of the development of the methodology see Jane G. Schubert, The Impact of Participant Training on the Attainment of Development Goals. Final Report: The Methods and Procedures for Assessment of Impact, Report No. 5, (Washington, D.C.: American Institutes for Research, March 1976), pp. 1-12.

35/ Ibid., pp. 3-4.

36/ Ibid., pp. 7-8.

37/ Raga S. Elim, "An Evaluation Report of the Impact Study of Participant Training on Development Goals, (Washington, D.C.: Agency for International Development Library, July 1, 1977), (Typescript).

38/ North-South: A Program for Survival. The Report of the Independent Commission on International Development Issues under the Chairmanship of Willy Brandt. (Cambridge, Massachusetts: The MIT Press, 1980), p. 23.

39/ Ibid.

40/ Jon Moris, Managing Induced Rural Development (Bloomington, IN: International Development Institute, 1981), p. 91.

41/ Irving Leonard Markovitz, Power and Class in Africa: An Introduction to Change and Conflict in African Politics (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1977), p. 23.

42/ James Weaver and Kenneth Jameson, Economic Development: Competing Paradigms (Washington, D.C.: University Press of America, Inc., 1981), pp. 1-5.

43/ Moral philosophers argue that moral discourse is carried on at four levels. The fourth level is the "ground-of-meaning" or "post-ethical" level. To discuss morals or values at this level requires beginning with some normative content, some principles which cannot be deduced from some other level; there must be some agreed procedure by which the discussion proceeds; and there must be some shared commitment to the principles and the procedures. Without these, moral discourse cannot proceed meaningfully. See Glenn Stassen, "A Social Theory Model for Religious Social Ethics," Journal of Religious Ethics 5 No. 1 (1977):9-37.

In a similar sense, discussion of values in development requires some given normative content or principles, a regulative procedure for discussion, and a shared commitment to the norms and procedures. The core values of Goulet and the central value clusters of Gunatilleke are located at this fourth level of discourse. They are accepted as the given normative content for beginning the discussion of development. The principle of "mutuality" can be taken as the procedural principle which allows persons from different cultures to approach the issues of development meaningfully.

44/ Denis Goulet, "An Ethical Model for the Study of Values," Harvard Educational Review 41 (May 1971), 205-227. Also, Denis Goulet, The Cruel Choice Goulet defines "existence rationalities" as "processes by which societies...devise optimum strategies for obtaining their goals." Goulet goes on to distinguish two sets of values. "Core values" comprise the inner limits of the rationality and are indispensable to the cohesiveness of a society. Beyond the core values is the more peripheral outer zone of attitudes and behavior which can be modified and adapted without threat to the existence of a society.

45/ Godfrey Gunatilleke, "The Ethics of Order and Change," in Ethical Dilemmas of Development in Asia, edited by Godfrey Gunatilleke, Neelan Tiruchelvam, and Radhika Coomaraswamy (Lexington, Massachusetts: Lexington Books, D.C. Heath and Company, 1983), pp. 17-19. Gunatilleke elaborates the central clusters as follows: growth cluster (increase in material output, technological capability, self-reliance and ecological balance); an equity cluster (reduction of inequality, elimination of poverty, satisfaction of basic needs); and a participation cluster (distribution of power, participation in decision making, institutionalization of dissent).

46/ Norman T. Uphoff and Warren F. Ilchman, ed., The Political Economy of Development: Theoretical and Empirical Contributions (Berkeley, CA: University of California Press, 1972), p. 75.

47/ Ibid., pp. 76-77.

48/ Paul Streeten, "From Growth to Basic Needs" in Poverty and Basic Needs, reprinted from Finance and Development (September 1979), p. 7.

49/ David C. Korten, "Community Organization and Rural Development: A Learning Process Approach," Public Administration Review (September/October, 1980), 496. Uphoff and Esman discuss their definition of participation and its contributions to development as follows:

Participation....we refer to 'ex ante,' before-the-fact involvement in the choices and efforts producing growth, which in fact has great influence on who will benefit from the fruits of growth. Local participation can bring useful, locally-based information and local interests into decision processes, and it can reveal and tap previously unrecognized managerial and leadership talents. The opportunity to participate...enhances the legitimacy of local institutions and also of national government....

See Norman T. Uphoff and Milton J. Esman, Local Organization for Rural Development: Analysis of Asian Experience, Special Series on Rural Local Government (Ithaca, NY: Rural Development Committee, November 1979), p. 399. Excerpts in Melvin G. Blase, Institution Building: A Source Book. Revised edition. (Columbia, MO: University of Missouri Press, 1986), pp. 61-62 and 399-401.

50/ Uphoff and Ilchman, Political Economy of Development, p. 75.

51/ Coralie Bryant and Louise G. White, Managing Development in the Third World (Boulder, CO: Westview Press, 1982), p. 14-19.

52/ Louise G. White, Creating Opportunities for Change: Approaches to Managing Development Programs (Boulder, CO: Lynne Rienner Publishers, 1987), p.

53/ The World Bank, Institutional Development in Africa: A Review of World Bank Project Experience (In Two Volumes) Vol. I: The Report (Washington, D.C.: The World Bank, 1984), p. 3. See Appendix I for a detailed discussion of definitions.

54/ Daniel W. Bromley, "Land and Water Resources: A New Perspective on Economic Development," reprinted from Issues in Third World Development. edited by Kenneth C. Nobe and Rajan K. Sampath, (Boulder, CO: Westview Press, 1983), p. 200.

55/ Bryant and White, Managing Development p. 42.

56/ Peter M. Blau, Exchange and Power in Social Life (New York: John Wiley & Sons, Inc., 1964), pp. 16-19.

57/ Richard H. Hall "Closed-System, Open-System, and Contingency-Choice Perspectives," in Sociological Reader on Complex Organizations, edited by Amitai Etzioni, 1972) pp. 36-38. See also Jon H. Barrett, Individual Goals and Organizational Objectives: A Study of Integration Mechanisms, (Ann Arbor, Michigan: The University of Michigan), pp. 1-16.

58/ Ibid., pp. 38-39.

59/ William A. Smith, et al., The Design of Organizations in Rural Development Projects--A Progress Report. World Bank Staff Working Paper, No. 375 (Washington, D.C.: The World Bank), 1980, p. 9.

60/ Milton J. Esman, "The Institution Building Concepts--An Interim Appraisal," (Graduate School of Public and International Affairs, University of Pittsburgh Pittsburgh, PA, 1967, Mimeograph). Summarized in Melvin G. Blase, Institution Building: A Source Book. Revised edition. (Columbia, MO: University of Missouri Press, 1986), 68-75. See also Milton J. Esman and Hans C. Blaise, "Institution Building Research: The Guiding Concepts," (Washington, D.C.: Agency for International Development, Department of State, February 1966). (Typescript)

61/ The agricultural research center, INERA (INEAC), Yangambi, is a classic case in point.

62/ Technical Program Committee for Agriculture, "Occasional Paper No. 1," Washington, D.C.: Agency for International Development, undated) (Mimeograph). In Blase, Institution Building, p. 63. The authors recognize how easy it is to confuse organizational development for institutional development. In fact short-term horizons, created by short-term commitments, make it all but inevitable that projects substitute organizational development for institutional development. Criteria for assessing institutional development outcomes are embryonic most likely because few have ever been compelled to develop and use them. Most measures of success are centered around plans made, dollars spent, outputs produced and short-range targets approximated. In less than five years, the planner, the spender and the evaluator have moved on.

63/ Douglas R. Bunker, "Understanding and Practicing Institution Building: Concepts for a Theory of Practice" Chapter 2 in Building New Social Institutions: The Case of National Health Planning. (Forthcoming). Excerpts in Institution Building: A Source Book, by Melvin G. Blase. Revised edition. (Columbia, MO: University of Missouri Press, 1986), p. 35.

64/ Ibid.

65/ William Siffin, "Institutional Development: A Strategic Perspective," (Prepared for the Agency for International Development, 1985), n.p. (Draft)

66/ Norman T. Uphoff, "Developing Water Management Institutions in Sri Lanka: Understanding Collective Action and managing Common Resources." Paper Prepared for ASPA annual conference, Bloomington, Indiana, (March 1985), p. 29.

67/ Bromley, "Land and Water," p. 200.

68/ Larry Kiser and Elinor Ostrom, "The Three Worlds of Action: A Metatheoretical Synthesis of Institutional Approaches," in Strategies of Political Inquiry, ed. by Elinor Ostrom (Beverly Hills, CA: Sage Publications, 1982), pp. 206-207. Kiser and Ostrom define their approach as follows:

The microinstitutional approach is 'micro' because it starts from the individual as a basic unit of analysis to explain and predict individual behavior and resulting aggregated outcomes. It is an 'institutional' approach because major explanatory variables include the set of institutional arrangements that individuals use to affect the incentive systems of a social order and the impact of incentive systems on human behavior. (pp. 180-181)

69/ Ibid., pp. 206-209. Kiser and Ostrom do not use the term "macro-institutional." Their three levels of analysis--operational, collective choice, and constitutional--correspond closely to the three levels of analysis which I have identified as individual, organizational and institutional, but the categories are not completely congruent. One reason is that Kiser and Ostrom focus on decision making at each level. My categories are broader and include patterns of behavior which may or may not be rule-ordered. Some behavior patterns may be "role-induced," as Uphoff's work has demonstrated. In some situations--perhaps many or even a majority in developing countries--the empirical reality is the absence of formal institutional arrangements or a confusing mixture of conflicting formal and informal institutional arrangements which are contextually determined and not clearly ordered at all.

I am using the term "micro-institutional" to encompass decisions and patterned behavior (roles) at both the individual and organizational levels (the operational and collective choice levels for Kiser and Ostrom). I am using "macro-institutional" to refer to my institutional level (Kiser and Ostrom's constitutional level). Both terms--micro- and macro-institutional--encompass choice or decision making, hence rules (formal and informal), and roles (patterned behavior). Roles exist at all three levels of analysis. The "institutional" quality of rules and roles can only be judged over time and in relation to the actors within a specific environment.

70/ Ibid., pp. 190-194 and 201-205.

- 71/ Uphoff, "Developing Water Management," pp. 13-14.
- 72/ Ibid.
- 73/ Ibid., p. 14.
- 74/ Ibid., pp. 28-29.
- 75/ Ibid., p. 29.
- 76/ Ibid. See also p. 21. Uphoff suggests that establishing a role effectively is more dependent on "establishing patterns of communication, incentives, and authority" than the individual characteristics of the person placed in the role.
- 77/ Ibid., p. 43.
- 78/ Ibid., p. 24.
- 79/ Ibid., p. 25.
- 80/ Robert M. Bates, "The Analysis of Institutions," (Prepared for AID, 1985), pp. 10-12. (Draft)
- 81/ Milton Esman, et al.
- 82/ Wesley Bjur, "Taking an Institution's 'I.Q.'," Los Angeles, CA: The Public Policy Institute of the Center for Public Affairs, University of Southern California, 1982-1983. Excerpts in Melvin G. Blase, Institution Building: A Source Book. Revised edition. (Columbia, MO: University of Missouri Press, 1986), p. 48.
- 83/ Kenneth E. Boulding "The Sources of Legitimacy," in Uphoff and Ilchman, Political Economy of Development, p. 24. There appears to be a fine line between legitimate authority, capable of commanding sacrifices (Boulding's "negative payoffs") and coercive authority which commands acceptance based solely on force. Bjur's observation that legitimacy is cumulative at least partially explains how coercive authority is able to sustain itself. Coercive authority draws on multiple sources of legitimacy making unpalatable actions more acceptable. Authority is thus strengthened by multiple sources of authority and legitimacy. E.g., Mobutu's association with the U.S.
- 84/ Bunker, "Institution Building" in Blase, Institution Building, p. 35.
- 85/ Bjur, "Institution's I.Q.", in Blase, Institution Building, pp. 48-49.

## CHAPTER III

### DISCOVERING IMPACTS AND CONSEQUENCES

This chapter outlines the research methodology and includes a review of selected literature. The preliminary hypotheses and their indicators are set forth in greater detail. Characteristics of the overall case study, sources of data, field work procedures, data collection and analysis, and the role of the Comparison Group are discussed.

#### Preliminary Hypotheses

This study examines four hypotheses on the relationship between international training and development: two of them focus on the impact of training on individuals, a third on organizational capacity, and a fourth on the processes of institutionalization.

The research strategy incorporates a "pattern-matching logic."<sup>1/</sup> This method compares the patterns and relationships which emerge from empirical data with those hypothesized in order to demonstrate how data tend to confirm or not to confirm preliminary hypotheses. <sup>2/</sup> The procedure is a "winnowing" or "sifting" procedure which "systematically separate[s] factors that are invariantly related out of those 'confounding' factors that

procedure which "systematically separate[s] factors that are invariantly related out of those 'confounding' factors that incidentally occur along with them." 3/ When data tend not to confirm hypotheses, rather than trying to "fit" the data to the hypotheses, they are revised to fit the data, providing alternatives which better explain impact of training. Since the hypotheses formulated are preliminary and open to revision, it is possible to discover alternative outcomes during the research process. Alternative hypotheses can be tested in future research.

The following preliminary hypotheses outline the expected impact of international training (IT) on individuals, on the organization (SPS), and on the process of institutionalization.

#### HYPOTHESIS 1: Personal development

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International training contributes to increased personal well-being, a sense of self-esteem, and personal development of the participant-trainees.

##### Proposed indicators:

- 1.1 sense of well-being, self-esteem and efficacy
  - 1.2 satisfaction with family and personal relationships
  - 1.3 improved material conditions
  - 1.4 perception of professional (technical) competence
  - 1.5 assumption of roles and commitments beyond family and work
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## HYPOTHESIS 2: Professional development

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International training contributes to increased professional capacity and improved work performance in Studies and Planning Service (SPS) or elsewhere.

Proposed indicators:

- 2.1 use of knowledge and skills obtained in training
  - 2.2 effective work relationships with superiors, peers and subordinates
  - 2.3 performance of significant roles in the organization
  - 2.4 increased demand for the use of knowledge and skills obtained in training
  - 2.5 transfer of training to others
- 

## HYPOTHESIS 3: Organizational development

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International training contributes to increased capacity and performance of the Studies and Planning Service (SPS) by utilizing participant-trainees.

Proposed indicators:

- 3.1 utilization of knowledge and skills of trainees
  - 3.2 facilitation of transfer of training to others in SPS
  - 3.3 ability to attract and retain trainees and other qualified staff
  - 3.4 ability to attract other resources which enhance effective use of trainees
  - 3.5 use of trainees in significant roles within SPS
  - 3.6 increased quantity and quality of outputs
  - 3.7 increased proportion of staff with training appropriate to SPS's mission
  - 3.8 appropriate allocation of resources to the maintenance and mission tasks of SPS
  - 3.9 structure of incentives which reflects equity in assignments, compensation, benefits and burdens and training opportunities.
  - 3.10 "esprit de corps"
-

## HYPOTHESIS 4: Institutional development

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International training contributes to direct and sustained involvement by participant-trainees in establishing and/or performing roles central to the Study and Planning Service's (SPS's) mission and constituency.

Proposed indicators:

- 4.1 increased effectiveness of SPS in fulfilling its mission
  - 4.2 new or broadened roles and increased status of SPS within the the Department of Agriculture reflected in
    - 4.21 increased professional influence within DOA on program and policy issues
    - 4.22 internal policy changes enhancing SPS's capacity and performance
    - 4.23 budget allocations from DOA beyond historic levels
    - 4.24 increased use of SPS outputs and services
  - 4.3 increased value of SPS outputs and services to users
    - 4.31 increased demand for use of trainees
    - 4.32 increased use of SPS's outputs and services
    - 4.33 identification by users of significant contributions by trainees to mission-centered activities
  - 4.4 implementation of activities which require the knowledge and skills trainees acquired in training
  - 4.5 involvement of trainees in establishing and/or performing roles central to SPS's mission
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### A Case Study Approach

The overall research strategy is based on a case study approach. Robert K. Yin defines a case study as an empirical inquiry which

- > investigates a contemporary phenomenon within its real-life context; when
- > the boundaries between phenomenon and context are not clearly evident; and in which
- > multiple sources of evidence are used. 4/

Yin says that a case study may be used to describe, to explain, and to explore. This study contains an element of each.

The study explores impact of training in the ambiguous, real-life

setting of Zairian bureaucracy. Within the case study framework, a quasi-experiment was designed to control some of the intervening variables. This will allow future longitudinal studies to be done and allow the study to be compared to certain other cases. The following section sets forth the literature from which the methodology was most directly developed.

### Data Collection and Analysis

#### Qualitative and Quantitative Data

Much debate has been waged over the relative value of quantitative versus qualitative methods, but researchers are increasingly exploring ways to link qualitative and quantitative data. 5/ The proper question is, What method or mix of methods is appropriate to a given research or evaluation setting? 6/

Interest in qualitative methods has increased with a deeper appreciation of the complex nature of social phenomena which do not readily lend themselves to quantitative analysis. The phrase, "qualitative methods" does not have a precise meaning. John Van Maanen lumps qualitative methods together and describes them as "an array of interpretive techniques which seek to describe, decode, translate, and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world." 7/ The combination of qualitative and quantitative methods used in this study aims to obtain in-depth understanding while providing a foundation for current and future comparative work.

#### Multiple Sources and Multiple Methods

Data for this study were gathered from multiple sources of

data using multiple methods of data collection. In-depth interviews provided much of the qualitative data for the study. Table 1 shows the four major sources (categories of persons) of interview data. Interview data were supplemented with data from curriculum vitae forms and a supplemental questionnaire in cases where interview questions were incomplete. Other data sources used were SPS documents, other archival records, and direct observations.

Individual reports are accepted at face value. Where apparent conflict in reports exist, the reports are examined critically using other confirming reports and other sources of data to identify the most persuasive set of data. Using multiple sources of data and methods of collection has provided a fuller, multi-faceted picture, enhancing the validity of the findings. 8/

A report of favoritism based on the U.S. university attended or based on region of origin may be accepted at face value. Additional confirming reports increase the persuasiveness of that data. If conflicting reports exist or, if only a few or a single report is received, other sources of data may make the report(s) persuasive. For example, if recorded data show that promotions or allocation of preferred assignments follow the reported patterns of favoritism, the single report, coupled with the record of promotions or allocation of assignments may be persuasive.

Contributions from Ethnography:  
Insider and Outsider Perspectives

Insights from the ethnographic work of anthropology were

used in designing and conducting the field research.

Ethnographers attempt "to show how social action in one world makes sense from the point of view of another" 9/ or "to understand social systems from the inside out."10/

Ethnographers assume that each local setting is in some way unique and that understanding begins with first-hand knowledge and personal experience for which there is no substitute. 11/ There are, however, major differences among ethnographers on what first-hand data is acceptable.

Pertti Pelto has outlined the basic differences between two major positions--"emic" (insider) and "etic" (outsider) ethnographic perspectives. The insider perspective accepts the use of verbal reports as valid data and strives to capture this data as much as possible in the words of those who are the focus of the study. In contrast, the outsider perspective emphasizes actual behavior as the basic source of data and rejects verbal reports as primary data. Pelto argues that the approaches should be seen as complementary. 12/

Pelto's middle ground position suggests that the following points are important for ethnographic work: 1) gathering data about cultural behavior as much as possible from 'the actors' point of view'; 2) using the native language and learning to interact in the local setting in culturally acceptable ways; 3) observing day to day behavior; 4) critically listening to concerns and attitudes; and 5) systematically checking and rechecking one's stock of working hypotheses in light of the insiders' definitions of experience. 13/ These insights provided guidelines for the field research in Zaire. Before

discussing the field procedures used, following are additional comments about insider and outsider perspectives in this study.

Access to both insider and outsider perspectives is essential to understand "the behavioral facts." In this case, there are two major sets of insider-outsider perspectives to consider: cultural and organizational. Zairians are cultural insiders, while expatriates are not, by definition. Since 85 percent of those interviewed were Zairians, the dominant perspective presented is that of cultural insiders (table 1).

Present and past employees of SPS are organizational insiders, while those who have never worked within SPS are organizational outsiders. Just over half (54 percent) of the interviews were with current SPS staff or expatriate staff working within SPS. An additional 32 percent of those interviewed were former SPS staff who brought perspectives informed by first-hand, insider experience of SPS and additional perspective from their outside experience. Organizational outsiders represented 14 percent of the interviews.

The interview data combine a rich mixture of insider and outsider perspectives with cultural and organizational insiders predominating, at least in numbers. Table 1 summarizes the number of persons interviewed and their cultural and organizational perspectives.

#### Field Work Procedures

##### Interviews

The in-depth interviews aimed to understand what the training program has meant to those most affected--participant

trainees and their colleagues. I used a "modified ethnographic approach" in conducting the interviews, following the principles summarized as important by Pelto, with the exception of using the native language. The procedures followed are summarized in List 1.

List 1: Summary of Interview Procedures

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- 1 - Developed an initial set of questions.
  - 2 - Began interviews following the same general pattern.
  - 3 - Allowed interviewees to "disorder" questions so that issues considered important to them were given prominent attention.
  - 4 - Pursued leads in individual interviews.
  - 5 - Reordered questions when a more useful order was found.
  - 6 - Modified questions as determined appropriate.
  - 7 - Covered all topics set in initial questions by returning to topics skipped over.
  - 8 - Allowed and encouraged interviewees to ask their own questions.
- 

On the basis of my personal knowledge of the training program, participant-trainees, and other key persons, I prepared preliminary questions prior to the field work. These were modified after arrival and to some extent through the early interviews. The principal questions were open-ended and were followed by additional probing questions (see appendix B). Responses were recorded as much as possible in the words of the interviewees. I conducted interviews alone, in English with those who spoke English (including participant-trainees, U.S. expatriates, and other English speakers) and in French with non-English speakers (including Comparison Group members and other non-English-speaking persons) with the assistance of an interpreter, a French national who had no prior relationship to SPS or the the Department of Agriculture. 14/

TABLE 1

## DISTRIBUTION OF INTERVIEWEES BY RELATIONSHIP TO SPS, CULTURAL AND ORGANIZATIONAL PERSPECTIVE

Interviewee category	Interviews	Zairian	Expatriate
Training Group (participant-trainees):	32 (40.0)	32 (40.0)	-- --
Inside SPS	(11)		
Outside SPS	(21)		
Comparison Group:	16 (20.0)	16 (20.0)	-- --
Inside SPS	(11)		
Outside SPS	(5)		
Key Observers:	22 (27.5)	13 (16.25)	8 (10.0)
SPS personnel	(7)		
SPS supervisors	(4)		
Technical advisors	(8)		
Others	(3)		
Recipients of SPS outputs:	10 (12.5)	6 (7.5)	4 (5.0)
Use SPS services	(9)		
Hired SPS staff	(1)		
Total	80 * (100.0)		

## Perspective of Interviewees

CULTURAL:			
Insider	68	85.0	
Outsider	12	15.0	
ORGANIZATIONAL:			
	(Current)	(Past)	(Combined)
Insider	43 (53.75)	26 (32.5)	69 (86.25)
Outsider	11 (13.75)	-- --	11 (13.75)

\* Seventy-seven of the interviews were conducted in Zaire between March 17 and May 10, 1986. Three interviews were conducted in the U.S. after the field work.

I began each interview by explaining the rationale for the study and gave opportunity for questions or comments. I assured them of the confidentiality of their responses. I covered the same basic set of questions within each group, but I pursued in greater depth issues which seemed to be significant to each individual. The approach was similar to that used by Goodwin and Nacht whose work was discussed earlier. 15/

In all I conducted eighty in-depth interviews: Forty (40) percent with participant-trainees (Training Group--persons trained in the U.S. under the Agriculture Economic Development Project); twenty (20) percent with Comparison Group members (present and former SPS colleagues not trained in the U.S.); forty percent with Key Observers, selected because of their relationships to SPS, the training program or participant-trainees. Some Key Observers make use of SPS studies and others have hired former SPS staff.

#### Data Analysis

Data analysis began in the field. Van Maanen states that description is the "fundamental act of data collection in a qualitative study" 16/--telling what was reported, recorded and observed. The original plan was to fashion the interview data into "narrative descriptions" on a word processor in the field and to maintain it as the principal data base. The next step was to begin the data reduction process in the field. The assumption was that if these steps were taken in the field, questions could be modified as needed, missing data could be secured, and unexpected leads could be followed-up, thereby improving the

quality of the data. This would also help reduce the notorious problem of having data "grow cold" after leaving the field.

#### Fieldwork Adjustments

A number of adjustments to the plan were made in the field. The principal reasons included inappropriate assignment of research assistants, lack of availability of persons with data entry skills, and limits of time. 17/ Scheduling interviews, communications, and transportation all turned out to be more difficult than anticipated. Many interviews had to be rescheduled, others had to be completed in second sessions, and nearly all took more time than anticipated. Since the phone system did not work consistently, verification of appointments prior to arrival was nearly impossible. The lack of control over scheduling interviews was a source of continuing frustration and reduced the efficiency of the field work. This is an inevitable part of field work.

Due to the lack of data entry support staff, only ten percent of the interview data was entered into a word processor in the field. The alternate plan was for me to enter the data myself. Each interview generated approximately 1,000 words of text requiring 3-4 hours of typing and editing. After entering eight of these in the first two weeks of interviewing in the field, I decided to complete that task after finishing the interviews.

All interview data were subsequently preserved in two forms: full narrative descriptions maintaining the exact order of the original interview and editorial notes clearly indicated; and

responses of interviewees sorted by question. The narrative descriptions preserve the integrity of the responses within the original interview setting, and the sorted responses allows responses to be compared easily. Appendix B has a sample from each of the data sets and illustrates how editing, reduction, categorization and coding were done.

Narratives were coded after typing, reduction, and sorting were completed. A preliminary set of codes developed before the interviews was modified during the data reduction phase. The modified codes were more suitable for analysis of the data.

Frequency distributions of coded responses are presented with the final analysis. Cross-tabulations were run on some of the data taken from the "curriculum vitae." Analysis of variance was run to allow comparison of individuals by training and by current employment (inside or outside SPS) to assess the comparability of the groups. The results are discussed in chapter four.

Copies of data generated at each stage of data collection and analysis insure that the methods used can be verified. Key person in Zaire reviewed a draft of the study and provided comments to insure greater accuracy and completeness. 18/

#### Document Review

Project documents and documents produced by the organization were reviewed to supplement interview data. One research assistant compiled a list of documents produced by the SPS from it's inception and summarized their contents. These documents are one of the major outputs of SPS and provide evidence of the

productivity of SPS, the primary link to training and the extent to which the capacity for agricultural economic analysis has been institutionalized.

Three evaluation reports were made during the life of the project and provide a periodic snapshot of the SPS from the perspective of outsiders (culturally and organizationally). I reviewed all major project reports and evaluations related to the project.

#### Personal Observations

I recorded my personal observations in the margins of interviews and in a daily log book of my activities. These are the primary sources of the observational data.

#### Rationale for Creating a Comparison Group

A critique of a major study of impact of training initiated by AID in the early 1970s included the following criticisms of the methodology: 1) lack of a basis for comparing outcomes with a control group; 2) lack of accounting for intervening variables, including pre-training conditions; 3) reliance on data from participant interviews without verification from other sources; and 4) heavy dependence on individual judgment during the data analysis phase. 19/ Knowing these potential pitfalls, I used a control or comparison group.

#### The Problem of Intervening Variables

Research designs using experimental methods have greater control of the research setting and have developed a number of techniques to control intervening variables. Given an inability

to alter the social setting, I was limited to a quasi-experimental design. Control over intervening variables does not mean manipulation of people. Rather, it means accounting for factors which logically may be causes of outcomes. I have chosen to use the phrase "comparison group" instead of "control group," which I feel conveys the idea of greater manipulability of variables than is warranted.

#### Criteria for Selecting the Comparison Group

There was no authoritative list of persons who had worked with SPS so the research assistants and I created a master list of current and former SPS employees from which to select the desired number of persons to be interviewed. The master list was compiled a list of current employees and lists in past reports and records. Current and former SPS staff, provided verification of names and other lists against which to check the master list.

Individuals were selected from current SPS staff who met the following minimal criteria: individuals 1) who did the same type of work as the participant-trainees, 2) who had done so for a minimum of one year, 3) and who had roughly equivalent levels of education prior to international training, and 4) who potentially might have been selected for training. Originally, the aim was to keep the Training Group and the Comparison Group about the same size for the sake of comparability. The smaller pool from which to draw for the Comparison Group resulted in a smaller group than originally planned.

### Variables: Proxy, Intervening, and Post-training

Purely experimental designs achieve equivalent groups by randomized assignment to groups. 20/ Where random assignment is not possible, quasi-experimental methods can be used to account for possible differences between the groups prior to training. Since the groups I wanted to compare could not be created by randomization or given a pretest, proxy variables were used as substitutes for these procedures.

The Training Group and Comparison Group were compared using the proxy variables to control for pre-training differences. The results of this analysis are discussed in chapter four. Appendix D contains a complete list of variables. Following is a brief description of the types of variables.

Proxy Variables - Measures which are not affected by the treatment (international training program) but logically might affect selection for training or outcomes after training. These include sex, age, region of origin, parental education and occupation. Other important pre-training variables for which data were collected include education level, work experience, and family status.

Treatment Variables - International training variables include length of time in the U.S., location, type of program, field of study, performance (grade point average), English language facility, and location of thesis research. These represent the treatment received by the training group.

Intervening Variables - Factors which may have been important influences on individuals' post-training decisions and actions, including technical assistance. Experience with

actions, including technical assistance. Experience with technical advisors was treated as an intervening variable affecting outcomes over the life of the project.

Post-training Variables - Outcomes of individual decisions and actions. They fall into six categories: attitudes, behavior, achievements, roles, status, and socio-economic outcomes, and family characteristics.

#### Controlling for Technical Assistance 21/

Technical assistance was considered potentially to be the most important intervening variable because technical advisors have worked in the SPS from its earliest years. Their presence has, however, been erratic and fragmented. The data indicate that in spite of these problems, technical advisors have played major roles.

Data were collected on the number of months (by year) and how closely individuals worked with technical advisors. These data demonstrate the extent of contact between staff and technical advisors and help to explain some of the attitudes toward technical advisors. Details of the rationale are found in the notes and results are discussed in chapter four.

FOOTNOTES - Chapter 3

- 1/ Robert K. Yin, Case Study Methods: Design and Methods (Beverly Hills, CA: Sage Publications, 1984), pp. 101-107.
- 2/ Donald Campbell "'Degrees of Freedom' and the Case Study," in Qualitative and Quantitative Methods, ed. by Thomas B. Cook and Charles S. Reichardt (Beverly Hills, CA: Sage Publications, 1979), p. 57. See also Nigel G. Fielding and Jane L. Fielding, Linking Data: The Articulation of Qualitative and Quantitative Methods in Social Research (Beverly Hills, CA: SAGE Publications, Inc., 1986), pp. 86-91.
- 3/ Fielding and Fielding, Linking Data, p. 87.
- 4/ Yin, Case Study Methods, p. 23.
- 5/ In Linking Data Fielding and Fielding explore the challenge of using both qualitative and quantitative methods and offer examples of how linkages may be made and how the problems inherent in the process may be effectively addressed.
- 6/ Thomas Cook and Charles S. Reichardt, Qualitative and Quantitative Methods in Evaluation Research (Beverly Hills, CA: Sage Publications, 1979), pp. 7-32.
- 7/ John Van Maanen, "Reclaiming Qualitative Methods for Organizational Research: A Preface," in Qualitative Methodology, ed. by Van Maanen, (Beverly Hills, CA: Sage Publications, 1983), [pp. 9-18 in 1979 edition]. An updated reprint of the December 1979 issue of Administrative Science Quarterly.
- 8/ Yin, Case Study Methods, pp. 78-91.
- 9/ Michael H. Agar, Speaking of Ethnography, (Beverly Hills, CA: SAGE Publications, 1986), p. 11.
- 10/ Gerald M. Britan, "Contextual Evaluation: An Ethnographic Approach to Program Assessment," in Methodological Advances in Evaluation Research, ed. by Ross F. Conner (Beverly Hills, CA: Sage Publications, 1981), p. 51.
- 11/ See Pertti Pelto, Anthropological Research: The Structure of Inquiry. (New York: Harper & Row, Publishers). See also Peggy Reeves Sanday, "The Ethnographic Paradigm(s)," in Qualitative Methodology, ed. by John Van Maanen (Beverly Hills, CA: SAGE Publications, 1979), pp. 19-36.; Gerald M. Britan, "Contextual Evaluation," pp. 47-60; and John Van Maanen, "The Fact of Fiction in Organizational Ethnography," in Qualitative Methodology, pp. 37-55.
- 12/ Pelto, Anthropological Research, pp. 67-88. According to Pelto, the insider ("emic") approach emphasizes understanding "how other people construe their world of experience from the way they talk about it" and bases its analysis on "their

concepts, not ours.'" Within this perspective every attempt is made to categorize behavior in the native's own terms, not the researcher's terms. In contrast the "etic" (outsider) perspective argues that the "actor's verbal descriptions should not be used as the main evidence for actual behavior...." Great emphasis is placed on observation of nonverbal behavior, though verbal data are admissible as secondary evidence.

13/ Ibid., pp. 84-85.

14/ Although I speak and read some French, the level of my French fluency was inadequate for in-depth interviews.

15/ Goodwin and Nacht, Fondness and Frustration p. 3. Goodwin and nacht describe their approach in this way: Our technique...was to begin (interviews) by describing the subject and the questions that grew out of it. We found that typically some questions more than others attracted interviewees, and we allowed them to move freely in these directions. As time went on certain topics grew in importance while others receded. We tended also to check the course of our own understanding with later respondents and try to determine where consensus might lie.

16/ Van Maanen, "Reclaiming Qualitative Methods," p.[ ].

17/ Research assistants provided for the field work could not be used in ways originally planned. My plan was to have them review documents, schedule interviews, enter data into the word processor, and provide interpretation in interviews where only French was spoken.

However, because both were former participant-trainees and current staff members of SPS, they could neither assist in interviews which were necessarily confidential nor handle the interview data. Such use would have jeopardized the whole research process as interviewees would not have shared their complete responses in the presence of colleagues. Furthermore, neither had word processing skills. My attempt to enter the data myself could not be sustained due to the lack of adequate time and energy within the eight weeks scheduled.

The interpretation problem was quite effectively handled by hiring an alternate interpreter. Ms. Susie Zein interpreted in all interviews of persons who had not been to the U.S. for training. She was a French national with no previous ties or contacts with the SPS.

The crucial importance of confidentiality was underscored by comments of several Department of Agriculture staff. One advised me that the very week before our interview, some staff had been warned to be careful what they said to foreigners. Another flatly stated after our interview that if there had been another Zairian present, he would not have said the things he said. One high level official asked me if what he said was going to appear in any newspaper.

Apart from those comments were reports of a general directive which prohibited government officials from meeting with foreigners outside of their official duty stations. This

directive was handed down during my visit. There was one report of the enforcement of the directive against one official who attended a party with an American and because of that subsequently lost his job and was banished to a location in the interior.

18/ Yin, Case Study Methods, pp. 92-95 and 137-138.

19/ Raga S. Elim, "An Evaluation Report of the Impact Study of Participant Training on Development Goals," Prepared for the Agency for International Development, July 1, 1977. (Typescript in AID Library).

20/ Thomas D. Cook and Donald T. Campbell, Quasi-Experimentation: Design and Analysis for Field Settings (Chicago: Rand McNally Publishing Co., 1979), Chapter 3, "Quasi-Experiments: Nonequivalent Control Group Designs," pp. 112-115. See also Donald T. Campbell and Julian C Stanley, Experimental and Quasi-Experimental Designs for Research (Chicago: Rand McNally College Publishing Co., 1963), pp. 1-22, 47-50.

21/ The illustration distinguishes the two primary groups in order to account for both training experience and experience with technical advisors.

IMPACT OF INTERNATIONAL TRAINING AND  
TECHNICAL ASSISTANCE

GROUP	TYPE OF LEARNING EXPERIENCE	
	IT	TA
TRAINING (TG)	1	2
COMPARISON (CG)	0	1

IT = International training  
 TA = Technical assistance  
 TG = Training group (training in U.S.)  
 CG = Comparison group (no training in the U.S.)

The matrix reflects the assumption that both IT (international training) and TA (technical advisors) are sources of learning. Both types of learning experiences may lead to increased knowledge and skill, improved work performance, professional

achievement, and life and mobility chances as well. If so, how can these influences be sorted out?

Assuming equal weight for comparable exposure to IT (+1) and TA (+1), the most effective individuals should be those persons who experienced both IT and TA. The most effective persons should be those experiencing both training and technical advice. This is reflected in the matrix with a score of two (2). Conversely, the least effective persons should be those who experienced neither IT nor TA. This is reflected in the matrix with a score of zero (0). Persons with experience with either one or the other alone should fall in between the two extremes.

Information was gathered on number of months per year of experience with technical advisors with an estimate on a five point scale (0 to 4) of the frequency of the contact during that time. As the summary table 20 shows, there was no significant difference between the groups in level of contact with technical advisors except in one year, 1979. Comparison Group members had higher level of contact, as expected, since the majority of the Training Group were away in training. Differences of experience with technical advisors by groups are not indicated on this scale.

## CHAPTER IV

### BUILDING A "CHAIN OF EVIDENCE"

#### Overview

One of the central purposes of this study is to conduct the research in a way that produces valid results and replicable procedures. The process has required the systematic application of method combined with an open-ended approach to the subject. At times, as the task is iterative, it has also seemed endless. But each round of winnowing helped to separate the wheat from the chaff. The results are presented in four major sections: comparability of the groups, impact of training on individuals, on the Studies and Planning Service (SPS), and on institutionalization.

In broad-brush terms, SPS has developed a reputation for having the best-trained staff in the Department of Agriculture (Zaire). This reputation persists in spite of the movement of a majority of participant-trainees outside of SPS. Outside financial and technical assistance has played a major role in maintaining SPS's capacity and reputation.

Individual level - At the individual level the results include how participant-trainees perceive themselves and what

they have done since the training program. These are compared with similar data from the Comparison Group. The basic comparisons of the Training Group and the Comparison Group are supplemented by the observations of others (key observers) and with data from other sources (documents and my personal observations).

Organizational level - There is evidence that the status and influence of SPS has increased, both within the Department of Agriculture and among other departments as well. SPS's reputation has been enhanced in two ways: 1) from the work produced by those who remained in SPS and 2) by those who left SPS to take other responsible positions. Both have increased the awareness of the capacity of SPS.

Institutional level - SPS has been able to capture directly only a fraction of the benefits of the training program. By May 1986, less than one-fourth of the participant-trainees were still working in the organization. How can institutional capacity be developed if trained staff are lost after a short period of time? Recognizing the seriousness of the problem, the study provides a detailed analysis of the causes of staff staying or leaving SPS.

Successes external to the organization are little consolation for those concerned with institutionalization. However, the study demonstrates the importance of looking at impact beyond the project and reveals achievements which in time may be as important to agricultural development in Zaire as the original project goals. A majority of the participant-trainees are 1) still working in Zaire, 2) in development-related jobs,

3) principally within the agriculture sector, and generally 4) in higher level positions, either influencing or implementing agricultural policy objectives (table 2).

Comparability of the Two Primary Interview Groups:  
Training Group and Comparison Group

The methodology addresses the question of impact of training by comparing two groups. The Training Group (32) was comprised of persons who went from the Studies and Planning Service (SPS) of the Department of Agriculture, Zaire, to study in the U.S. A second group (16) of persons from the SPS who did not go to the U.S. for training were selected to form the Comparison Group.

The Comparison Group included persons who were broadly similar to the members of the Training Group in 1) level of education, 2) experience within the organization, and 3) likelihood of being selected for the international training program. As it turned out, the population from which interviewees were selected was smaller than anticipated, consequently the Comparison Group was also somewhat smaller.

Data were collected on both groups to create proxy variables used to demonstrate the comparability of the two groups and to control for possible pre-training differences. Analysis of variance was used to assess the comparability of the two groups with respect to key variables. 1/ The results are summarized in table 20. (See appendix D for details of the variables.)

The two groups were similar in many respects: predominantly male (all but one Training Group member), coming from parents with similar mixes of ethnic backgrounds, education levels, and

occupational backgrounds. There were two variables on which the two groups differed significantly: age and number of children. Although about two-thirds of both groups were married at the beginning of the training program, Comparison Group members were older (averaging 32.5 years of age compared to 28.3 years for Training Group members) and had greater family responsibilities (with an average of 2.86 children compared to 1.4 children for members of the Training Group). These differences were statistically significant. Their substantive significance is discussed later.

#### Overseas Training Experience

Overseas training and work experience by the Comparison Group narrowed the gap between the two groups in breadth of cross-cultural, academic and professional experience. Even though they did not study in the U.S., over two-thirds (11) of the Comparison Group had had considerable overseas training or work experience (table 3). Of those who were working in SPS in May 1986, five (50 percent) had between eight and fourteen months of specialized training in agricultural economics or statistics, principally in Europe. Two others had spent four years or more earning undergraduate degrees in European institutions prior to working in SPS. Two who left SPS had extended work experience (over 3 years) in other African countries as well as shorter-term training in Europe (5-6 months each). One earned a masters degree in Brazil. The international experience of the Comparison Group makes the comparison between the groups even more similar in background experience than anticipated.

## Impact of Training on Individuals

While the central substantive question posed in this study is "What, if anything, does international training contribute to development?", the impact occurs at differing levels. The first section focuses on impact at the individual level. There was agreement among the various groups interviewed that overall the international training program has had a positive impact on the individuals who were trained. Positive gains included new skills, improved work habits, and a sense of professional competence.

### Participant Perspectives on Their Training

#### Professional Competence

The training program has had a positive impact on the participants' perception of themselves as well-trained and competent professionals. Almost three-fourths of the participant-trainee responses about their training were positive (Table 21 - Table 24). As one individual stated: "I feel more comfortable in my work. I know economics." Another stated "I couldn't do very high level of tasks before training." "[After training] I felt I could...do anything." Participants cited most often (68 percent) increased knowledge in their subject matter fields and particular skills which they had gained as evidence of their increased capability (Table 24).

One trainee recounted that U.S.-trained participants are noted for their abilities to get a job done, as indicated in the following quotation: "'Ah, this [Zairian trainee] is an American. If you give him some work and he says day after tomorrow [it will

be done], he will have it done. If you go he will have it.'" Others recognized the capability of the trainees.

### Other Perspectives

#### Comparison Group

In general, Comparison Group members thought the trainees who returned to SPS were well-trained. Evidence cited by members of the Comparison Group included the following: 1) "their work is appreciated by others" outside SPS; 2) the papers they wrote after training were of better quality; 3) their work showed their "technical knowledge was deepened;" 4) and in a workshop setting "We could see the ones ((who studied)) in America had more ideas...more practical advice on how to work in the field."

#### Key Observers

One of the technical advisors who worked closely with participant-trainees confirmed their improved work habits as well as their technical capabilities.

It's clear to me in the Bureau d'Etudes the guys who have been to the States are technically better and have better work habits....I think their analytic skills are improved and their writing skills--not all but some....I would have thought their quantitative skills would have been better.

A Zairian observer added: "On the strengths side, they wanted to show their intellectual capacity so they worked hard to show this." Another technical advisor identified "absorptive capacity" as an important capability of participant-trainees, i.e., the ability to learn more and to benefit from working with technical advisors.

From the perspective of most participants (73.1 percent), the training they received fit(s) well the work which they perform(ed) in the Studies and Planning Service (Tables 22 and 23). Some qualified their positive responses by suggesting that more practical training would improve the fit of training. The Director of SPS also suggested that greater specialization would make the training more valuable. The overall positive assessment of the training program and its appropriateness for the work in SPS stands in stark contrast to the overall negative assessment of the environment to which they returned.

#### The Downside: Re-adjustment to Zaire

Although there were a number of expressions of happiness and eagerness to return to Zaire (8), a majority of the responses focused on negative factors encountered upon their return (Table 25). Participants cited most often the following areas requiring the greatest adjustments: 1) living and working conditions and 2) relationships, both personal and professional. While confirming the socio-economic difficulties, Comparison Group members also noted changes in the attitudes of participant-trainees which made readjustment difficult. The size and structure of the organization, the age composition of staff in supervisory positions and the field of undergraduate study also set narrow limits on trainee expectations for their futures in SPS.

The macro-economic environment and the decline in wages of civil servants have already been discussed. The difficult conditions were confirmed by others:

I didn't know all of them, but when they came back, I didn't have the impression that they made progress in their social evolution. My impression is that so many of them had problems that they couldn't concentrate on their work. I remember a particular case....That person never told me, but I saw for myself that he really had to struggle....

The general economic pressures were evident in the organizational setting in the early 1980's. One technical advisor arriving in mid-1981 described the bleakness of the environment: "((There was)) No room, no desk, no clerks, nothing, no building." 2/ One person recalled: "Those who came back in 1980, they all left in a few months. At that time the Department was not well-organized, and they did not have specific work to do." The bittersweet character of the overall view of training and return was captured by one participant who said,

The training program is okay, but there is no reward. You go to the U.S. and go further, but when you return you are worse off. For the brain it's okay, you learn. But for a job, you are worse off. ... I found that what I studied in the U.S. was not helpful because the system was the same. Since I was alone (only trainee) and I didn't have the authority, I had to follow them.

Another stated: "The academic program was good. But AID has to think about integration back to here...." Economic conditions and a bleak work environment made re-integration difficult, no doubt affecting personal and professional relationships as well.

Participants reported a number of factors which affected their relationships: family expectations of improved incomes, feelings of jealousy among colleagues, feelings of inferiority or superiority, favoritism, lack of recognition by supervisors, and others. Several trainees expressed a feeling of responsibility to return to Zaire to serve their country, but in returning one said

he felt "sort of like American soldiers who returned from Vietnam." Nobody seemed to care.

According to Comparison Group members, the attitudes and unrealistic expectations of participant-trainees contributed to the difficulty of trainee adjustment. As one stated,

When we go to study in other places in Europe..., we get a diploma, and when we return we don't feel any different. When those go to the U.S., they get a masters degree, and when they return they feel different. They think they are superior even to the 'Chef de Division.' This is my feeling, and I think the Americans even encourage this feeling.

These post-training attitudes overlay another set of perceptions which affected at least some participant-trainee decisions to leave SPS. There were observations of both outsiders and insiders that there were differences in treatment of persons based on one's undergraduate educational orientation. As one outsider observed,

I think a lot of people were trained but were not integrated well into ((Department of)) Agriculture because they were not 'agronomes.' Economists can more easily find a job. Another thing, there is an 'esprit de corps' among the 'agronomes,' and they tend to reject those who are not so trained.

A member of the training group made the same observation: since he was not an agriculturalist ("agronome"), he felt his opportunity to advance in the Department of Agriculture was limited so he took a job with the Department of Plan.

Comparison Group members cited trainee ambitions and unmet expectations about salaries and positions as factors affecting their adjustment. While trainee ambitions were likely a driving force, trainee assessments of the situation were accurate. As one supervisor stated: "They [participant-trainees] had

some expectation of positions, but because those positions were filled...they had to look elsewhere for a better position." The disappointment of unfulfilled expectations was affected by the structure of the organization as well as by the ambition of crainees. A clash between expectations and structural realities seems nearly inevitable due to the very real limits on opportunities for advancement.

In fact, as discussed below, many of those who did not go for training in the U.S. established themselves in supervisory positions while participant-trainees were in the U.S. With supervisors, who were basically in the same age cohort, unlikely to vacate the limited number of supervisory positions in the near future, newly-trained staff with higher-level qualifications than their supervisors had to look outside SPS for advancement. While much of trainee dissatisfaction within the organization was due to low salaries and lack of promotions, the limitations on future opportunities was perhaps an even greater factor.

Relationships were affected not only by attitudes but by the structure of the organization to which they returned as well. Trainees sometimes interpreted lack of opportunity for advancement and supervisors unwilling to give work as evidence of the lack of concern they felt (Table 25).

In spite of the fact that participants were eager to return home to family and friends, many found integration back to life and work difficult. Eagerness to return to Zaire often turned to frustration and disappointment.

## Return to Zaire

Success may be measured in a variety of ways. Measured by the percentage of trainees returned, the Agricultural Economic Development Project was overwhelmingly successful. By September 1986, over 90 percent (49) of the participant-trainees sent to the U.S. for training had returned to Zaire. Only five persons remained in the U.S. Considering the serious social and economic problems of Zaire over the past decade, the return rate of 90 percent is remarkable. The major reason that most people returned is simple: Zaire is home to the participants, in spite of an average 30-month stay in the U.S. Three other factors help to account for the relatively high rate of return: 1) the rate of successful completion, 2) family ties, and 3) an in-Zaire thesis requirement for a third of the group.

## Incentives to Return to Zaire

Success in training has been an important factor which encouraged Zairians to return to Zaire. It is at home in Zaire that demonstration of success means most to trainees. Of the original 53 trainees, over 92 percent (49) successfully completed their international training programs. The original training plan called for all participant-trainees to earn masters degrees and for two to continue on to earn doctoral degrees, but in some cases inadequate educational backgrounds and abbreviated English language training made it impossible for some to enter masters degree programs. Thirteen earned diplomas at the International Statistical Program Center, Bureau of the Census, 35 earned masters degrees, and two completed Ph.D. degrees.

Another strong incentive for participants to return to Zaire was their desire to return to families. Over two-thirds (22) of the Training Group were married before training. The majority left their families in Zaire. Most were happy to return to Zaire, and families were a primary reason: "I was in a hurry to return [to Zaire], because I left my wife and kids." Another replied, "I was so happy to be back with my family." The data reflect the importance of family ties to Zairian participants.

Just under one-third (7) of those in the Training Group who were married (22) brought their families to the U.S. The presence of families in the U.S. seems to have been a positive factor for participants. Having families in the U.S. did not seem to discourage or delay participants from returning to Zaire. In fact, just the opposite seems to be the case.

Unmarried participants and married participants whose families did not accompany them to the U.S. seemed to have had greater difficulties completing their studies and returning to Zaire than those whose families were in the U.S. The unmarried had neither the benefit of an immediate family nearby nor the incentive of a wife or children in Zaire to whom to return. At least three participants married Americans while in the U.S. In each case these participants either delayed or did not return to Zaire.

In addition to personal involvements, there were other factors which discouraged some participants from returning to Zaire. Four who have not yet returned may feel they have a lot to lose by returning to Zaire: economically (the opportunity cost of employment for one Ph.D.), socially (social esteem due to

academic failure) (2), or politically (political asylum requested) (1).

The third incentive to return to Zaire for about one-third (15) of the trainees was the project requirement to complete their masters degree theses in Zaire. The original proposal intended to make the award of the masters degree dependent on writing a thesis or a research paper based on the thesis in Zaire. As it turned out, this was incentive only for 15 of the trainees who actually did their theses or dissertation research in Zaire. For most of them, it was a potent incentive. 3/

#### Conclusion

International training contributed to the sense of self-esteem and professional competence of participant-trainees. Others in Zaire confirmed that participants were generally well-trained and capable. Most participants were eager to return to Zaire to demonstrate their enhanced capabilities, but met many frustrating circumstances, including a deteriorated macro-economic environment and, in the early years, an undeveloped organizational environment with little opportunity to advance or to demonstrate their abilities. Participants also felt pressures from family and friends to demonstrate that their training was worth the cost of separation from family and the loss of promotional opportunities within the organization.

While confirming the difficult circumstances which participants faced when they returned to SPS, some colleagues felt that trainees' superior attitudes and ambitions made their adjustments more difficult.

In the early years, impact of the training was strongly affected by constraints internal to the organization and external environmental constraints. Only as the organization developed a more coherent program of work has SPS been able to tap more effectively the knowledge and skills of participant-trainees. The impact of training on the development of SPS is discussed in the following section.

#### The Evolution of the Studies and Planning Service (SPS)

Organizational survival requires the capacity to control, as much as possible, the internal environment and to fit as effectively as possible to the external environment.

Organizational survival is a challenge, but an even greater challenge is to increase the capacity of the organization to fulfill its central objective(s) or mission. When an organization is capable of carrying out its central objectives over time, it has begun to institutionalize its functions and is evolving as an institution.

Two important questions for assessing organizational change are the following: 1) Is the organization fulfilling its stated or intended purpose, its mission? 2) Can performance be maintained over time on the resources available? The first section discusses the ways in which SPS has grown over the years with attention to these two questions. Subsequently, the impact of training on SPS is discussed.

The Studies and Planning Service took on its current organizational form in late 1982 (see Illustration 1 and 2). At that time its status within the the Department of Agriculture was

elevated from that of a Division to a Direction or Service. In May 1986 there were three major divisions within SPS, two of which this study focuses on: the Division of Agriculture Strategy and Planning (DASP) and the Division of Agricultural Statistics (DAS).<sup>4/</sup> The Division of Agricultural Strategy and Planning includes three bureaus: agricultural planning, agricultural economic analysis, and project identification and development. the Division of Agricultural Statistics has four bureaus whose functions are methodology, current statistics, data collection and publication, and computers.

The Studies and Planning Service is headed by a Director who has Division Chiefs reporting directly to him. Division Chiefs supervise the work of the Bureau Chiefs who, in turn, supervise both professional (technicians) and support staffs. Bureau Chiefs are responsible for developing the plan of work for bureau staff.

At least three key elements have played crucial roles in the growth and development of SPS: 1) leadership, 2) development assistance, and 3) international training.

#### Staff Size and Capacity

SPS has grown from a small professional staff of seven (7) Zairian technicians in 1974, twelve (12) in November 1976, to 77 in May 1986. At that time the Division of Agricultural Strategy and Planning had 40 professionals (30 technicians and 10 managers--Bureau and Division Chiefs) while the Division of Agricultural Statistics listed 37 professionals (31 technicians and 6 managers). (See table 4.)

The international training program has contributed to producing the most highly trained staffs in the the Department of Agriculture. Almost three-fourths (46) of the SPS professional staff have at least the equivalent of a bachelors degree (16-18 years of formal education), and about 14 percent (11) have masters degrees. However, the distribution between the two major divisions is uneven with 10 of the 11 masters degree holders in the Division of Agricultural Strategy and Planning and only one in the Division of Agricultural Statistics. (See table 5.)

### Leadership

The Studies and Planning Service and its predecessor has had only two leaders in 10 years. This has provided an important measure of continuity in a tumultuous situation. The first Chief implemented the major part of the international training program, sending 48 SPS [BE] staff for training in the U.S. between 1977 and January 1980.

The second director has consolidated the gains from training and other development assistance by providing a sense of direction and purpose. This has enhanced SPS's reputation as the best-trained cadre within the the Department of Agriculture.

### Assessments of SPS

The assessment of SPS by Training and Comparison Group members as a place to work were basically positive, with some qualifications. When asked about his experience in SPS, a Training Group member currently working outside SPS responded with feeling: "My experience was really rich in Bureau d'Etudes [SPS]." This positive assessment of SPS was more characteristic

of those who left in recent years that those who returned first from the U.S.

Both Training and Comparison group members were positive about SPS as a place to work (Tables 26-29). What they liked about SPS was the general atmosphere of work, the type of work, and the opportunities available through SPS. The majority of the Training Group members indicated that SPS was a place where they could (or can) realize the fulfillment of their training:

... It [trainees] was a complementary team. Some were qualified in production economics, some in econometrics, some in policy analysis. We would go to the field for thirty days and collect data, and we would return, work on our parts, at the end get together and discuss everything and finish the job. It was really great. And the atmosphere was great....

The common U.S. training experience provided the basis for the individuals to work as a team.

Similarly, Comparison Group members see SPS as a good place to learn, to get good training, and also to make contacts. SPS has enabled staff to learn, and this has been a positive factor in attracting staff. Members of both the Training Group and the Comparison Group said they appreciate the opportunity to learn while working in SPS.

One way learning occurs is through transfer of training between staff. Over 84 percent of the participant-trainees said they had been able to share some of their training with others. Most of the time (63.3 percent) this has taken place informally through on-the-job assistance. (See tables 31-32.)

Staff members also learn through the numerous contacts which they have with outsiders, including technical advisors and staff

of other departments and agencies with whom SPS staff interact. Missions which staff members take to the interior also increase their knowledge of the agricultural sector and of Zaire's development needs. SPS's capacity to provide these experiences allows it to attract new staff and help to offset, at least partially, the forces pulling staff to new jobs.

What respondents of both groups did not like about SPS were the conditions of service, including low salaries and inadequate benefits. When asked if there was anything about SPS that he disliked, one responded: "Except the material conditions there is nothing ((disliked))." Another stated even more strongly, "I got the feeling we were being exploited. We were not being paid as we should." He was one who had taken another job.

Training Group members mentioned dissatisfaction with conditions of service and living conditions almost twice as often as Comparison Group members. There is either a higher degree of dissatisfaction or a greater willingness to express negative opinions by participant-trainees. Staff relations was mentioned second most frequently by both groups as a problem area, accounting for about one-fourth of all comments (tables 33-35).

#### Organizational Impact of Project

When the Agricultural Economic Development Project was initiated, it coincided with the return from training of the first Chief of the Studies Bureau. Upon his return, the Chief of the Studies Bureau was also appointed National Director of the Agricultural Economic Development Project. As a result of that decision, the Agricultural Economic Development Project became

closely identified with the Division of Agricultural Strategy and Planning. Subsequently, the early problems of retaining staff in the Division of Agricultural Statistics led to relatively greater assistance to the Division of Agricultural Strategy and Planning than the Division of Agricultural Statistics and consequently increased separation between the Studies Bureau (later DASP) and the Statistics Division (DAS). At the same time, the Food and Agriculture Organization (FAO) was heavily involved with the Division of Agricultural Statistics. In retrospect, the lack of effective coordination between these two projects reinforced the existing patterns of separation and independent functioning. As late as 1985, the second mid-term evaluation of the project which followed the Agricultural Economic Development Project noted the continued lack of effective cooperation and coordination between the divisions, citing that as one of the major constraints of a more effective Studies and Planning Service. 5/. The following section looks at how well the Studies and Planning Service has performed its major functions and what role the international training program has played.

#### Impact of Training on the Organization

By May 1986 just under 36 percent of all those who were trained under the Agricultural Economic Development Project were working in the Department of Agriculture. Only one-fifth (11) of all the participant-trainees (53) were working in the SPS at that time. Why have the majority of participant-trainees left the SPS? For former staff members, the most pervasive factors for leaving SPS were economic (table 36). There were differences in

reasons given between the Training Group and the Comparison Group: differences according to year of return and differences by location in the organization. Following is a discussion of the reasons given by former staff for leaving SPS. Table 36 summarizes the responses.

### Participant Perspectives

Over half (54.2 percent) of those who responded said salaries were the principal reason they left SPS: "I had to look for a job....Because I couldn't afford (to live) on my salary." A few even said this was the only reason: "I think the main reason ((most)) is revenue problems. It's not because (this) [new] job is better...There is no other reason." And, "The only factor that made me leave the DSA was economics. That's all. Nothing else. If they had arranged salary, I would not have ((left))." Other reasons given by several persons included new job opportunities and relationships in SPS, but economic issues were central to most decisions to leave.

### Differences between the Groups

Selection or assignment by the Minister of Agriculture was the second most often cited reason for leaving SPS by the Training Group. As one interviewee explained, "I didn't decide to leave. I was promoted to serve with the C/E." Similarly, another stated: "I was selected by the Commissaire d'Etat. I had to do it." The appointment of participants to serve as advisors to the Minister (4), to direct major DOA agencies (2) and a major

World Bank project (1) suggests a recognition of the participants as well-trained, skilled people.

In contrast none of those in the Comparison Group indicated this as a factor in their decision to leave SPS. However, at least two have served as counselors to the Minister and one serves as the Director of a major national agricultural project (BUNASEM).

There are also differences in the types of reasons given between those leaving in the early years and those who departed later. Some returning to SPS in the early years said that it was not possible to do serious work in SPS. As one person who left SPS in 1980 stated, there was "nothing serious there." That type of response was not found among those who returned in later years.

### Roles

In spite of the fact that the Training Group felt that the work they are doing is what they were trained for, half of in SPS who responded to a question about their roles (4 of 8) said either they were dissatisfied with their roles or they minimized the importance of their roles: "If I have a role, it is small." "Ah, I'm just a technician...." In contrast, only one of the Comparison Group members in SPS gave that type of response. The difference in responses suggest differences in expectations. Since Training Group members spent two to three years longer in training than their colleagues to earn masters degrees, one ought not be surprised that their expectations are different. Becoming

a Bureau Chief is the next step beyond the formal role of technician.

At the same time, there are some individual responses which indicate the awareness that informal roles may be practically as important as formal roles.

I can say my contribution is this. I'm quite pleased. If they have a problem they come to ((named Chief of Bureau)). If he's not there or if he is, they come to me. Because...he is an economist. I studied agriculture at Yangambi. I think my role is important.

The technician's authoritative knowledge of agriculture created an informal role which gave him recognition and satisfaction.

#### Use of Trainees

As the literature review indicates, integration back into one's environment requires adjustment by both the individual and the organization. One of the most effective means of integrating staff is to be able to utilize their skills. How well has SPS utilized its trainees?

The data indicate that SPS has improved its capacity to utilize trainees. Training Group members working in SPS in May 1986 indicated that they have been doing the types of work for which they were trained: feasibility studies, designing and supervising surveys, collecting and analyzing data, studying agricultural commodities and markets, identifying, planning, and evaluating agricultural projects, and producing reports (Tables 23, 24). According to one trainee, this was a change from more routine tasks, such as answering letters, which they used to do. Training Group members indicated that their most important work at SPS was the studies they had done.

For those who returned first, the organization was not prepared to use their new knowledge and skills. While Training Group members who left SPS generally were happy with their training and felt competent to do their work at SPS, others focused on problems they encountered, including resistance to change, favoritism, and hostility. Other constraints to working in SPS cited included lack of equipment (computers) and lack of work assignments. Two people said they were not able to use their training and feared losing their skills. SPS has increased its capacity to utilize the training of participant-trainees effectively.

#### Rank

Rank is not a good proxy for capability or achievement, because training does not insure an increase in rank. To a great extent, rank in SPS is a function of seniority and being at the right place at the right time. In the DOA, it is well known that individuals often pass up opportunities for extended training programs for fear that they will be displaced while away from their jobs. One's position is best assured when one is present to secure it.

Most of the members of the two groups began their work in SPS as technicians. By the time all training selections were made (January 1980) an obvious transition had occurred: over 70 percent of the Training Group were still technicians (Level 1), but 75 percent of the Comparison Group had advanced to become either Bureau Chiefs or Division Chief (Levels 3 and 4) (see tables 15 and 16).

As individuals left for training, vacant supervisory and managerial positions were either already occupied or soon after filled by those who did not go for training. When trainees returned, supervisory positions were occupied by relatively young colleagues. In May 1986 seven out of ten supervisory positions in SPS were occupied by individuals who were not trained in the international training program. All have the equivalent of a bachelors degree ("licence" or "ingenieur agronome"). All but one began their careers at SPS in 1980 or earlier.

Since the prospects for advancement within the organization were relatively slim, many trainees left for new jobs where opportunity for advancement was greater. Of course, improved salaries and benefits were major incentives.

Table 16 shows how participant-trainees were able to advance by leaving SPS while, in most cases, those who stayed were not able to advance. Interestingly, the pattern of rank which held in 1980 was reversed by 1986. By May 1986 a majority of all members of the Training Group outranked Comparison Group members (table 16). About 62 percent of the Comparison Group members were in the two lowest professional ranks (Technicians or Bureau Chiefs, Levels 1 and 2). Conversely, about 59.4 percent of the Training Group members were working at the two upper levels (Division Chiefs or Directors, Levels 3 and 4).

In contrast, Training Group members who stayed at SPS were still outranked by Comparison Group members in May 1986. Six of ten (60 percent) of the Comparison Group working in SPS occupy supervisory positions while four of 11 (36.4 percent) of the Training Group members working in SPS have supervisory positions.

Even though 70 percent of the formal managerial roles are occupied by persons trained outside the Agricultural Economic Development Project, there are indications that trainees have gained influence because of their knowledge and skills.

Oh, I'd say my role is technical, just technical. As far as what's called theory goes...I am approached ((Question: By whom?)) I mean by the division, by the chief, the technicians, by everyone. But as far as position or authority goes, I have nothing. I am exactly where I was 10 years ago.

One readily feels the disappointment expressed by the individual whose technical training, and informal authority outranks that of colleagues but who has not been able to be promoted beyond his entry level position.

There are even indicators that the structure of the organization is being affected by the informal functioning of participant-trainees. This is implied in the comment of one key observer who has one foot inside (organizationally) and one outside (culturally):

...the Chief of the Division is a little on the side. That's a little bit of a problem, because the Bureau Chiefs are going directly to the Director and not through the Division Chief. You see when I do any work, I always make a copy of it and give to the Chief of the Division. He tells me I am the only one to give him the copy.

In this case, the Bureau Chiefs were participant-trainees but the Division Chief was not. Formal functional roles appear to be set aside for informal relationships based on authoritative knowledge and skill.

Hage and Finsterbusch argue that a more horizontally configured organization is most appropriate for research organizations that use complex technologies (requiring high

levels of training) and produce work for a small market requiring custom-made products or services.<sup>6/</sup> In this case the technology and the market are defining who should play what roles within the organization, whether formalized or not. If this pattern continues, modification of the organizational structure of SPS by the informal roles played by participant-trainees may improve SPS's capacity to fulfill its functions effectively. There are signs that training has had impact on the structure of the organization through the participant-trainees' work.

#### Institutionalization in SPS

Organizations gain an institutional identity by their patterns of activity and the capacity which they build and sustain over time. What activities have been central to the life of SPS? What capacities have been developed within SPS? How are the activities and capacities sustained? And what of the future? The following section examines these questions with attention to SPS's mission, capacity, linkages and influence.

#### The Mission of SPS

The mission of the Studies and Planning Service is to provide agricultural economic and statistical data and studies which can provide a sound basis for agricultural policy decisions. There is evidence that SPS has institutionalized partially the capacity to fulfill its mission, but serious deficiencies remain.

The evidence of development include growth and development in the organization, increased linkage within the Department of Agriculture and with other departments, creation of expectations

and routinization of desired behavior within SPS, and increased roles and status as an organization. At the same time, weaknesses which remain include greater dependence on external financing, declining financing by the Government of Zaire, and continued loss of experienced staff.

### Growth and Development

The growth of the organization--more staff, improved facilities and equipment--was discussed in the previous section. Organizational capacity has grown by virtue of the increased numbers of graduates at both the bachelors and masters level, which has increased the organizations analytical capacity. Furthermore, not only are staff numbers larger, but all ten managerial positions are occupied by Zairians. Thus, the indigenous capacity to perform and manage the technical work has increased from the beginning. SPS's capacity is being recognized.

### Development of Capacity

SPS has increasingly become a credible source of expertise capable of contributing to agricultural policy development. One former advisor to the Commissioner of the State of Agriculture commented about SPS:

And it's a bank of data.... And I found that was true because I felt that the C/E forgot some of the others because he always goes to SPS because he knows there are well-trained people who he can rely ((on)).

The perception of the increased capability of SPS is shared by people outside SPS. One highly-placed individual stated,

For me in my point of view, ((SPS)) is ahead of all the Services. When the SPS was in charge of the 'Plan de Relance,' they were in charge of all those

projects, and it was important for them to be well done.

It was implied that SPS did them well.

### Linkages

Another indicator of institutional development is an organization's linkages with its external environment. As indicated earlier, organizations are dependent on the environment for inputs (finances, personnel, etc.) but are also dependent on acceptance of their services or outputs by the environment. One would expect to find evidence of linkages to the parent organization--the Department of Agriculture, other Government of Zaire departments, international organizations, private sector organizations and also to farmers.

Linkages internal to the Department of Agriculture have been strengthened, primarily between SPS and the Secretariat (which includes the Commissioner of the State, Secretary of the State, and the Secretary General of Agriculture), and to a lesser extent with other Directions, particularly the Direction of Markets, Prices, Commodity and Credit (DMPCC), with whom SPS shares agricultural price data. Ironically, as noted earlier, one of the weakest internal linkages is closest to home--between SPS's Division of Agricultural Strategy and Planning and Division of Agricultural Statistics.

On the input side, SPS collects data from a wide variety of sources. Without its own capability of collecting primary data, SPS is dependent on secondary sources. There is some concern that SPS has relied heavily on technical advisors to use their status to access data of this sort because it is at times easier for a

guest (expatriate) than a Zairian technician to gain access to those responsible. Indigenous linkages are needed for institutional development to be achieved.

When asked which organizations are most important to SPS, a considerable number, including technical advisors, indicated donor agencies are most important. SPS continues to be highly dependent on international organizations for finances and technical assistance. The the Department of Agriculture also provides funding but at a very low level. Such linkages are crucial but set limits on independent action.

Collaborative efforts have begun to increase between SPS and some sister agencies. For example, without its own capacity to generate primary data, SPS draws upon other organizations for data to be used in their studies and reports. These linkages provide necessary inputs for the organization to function, but only at a given level. The stated goal of the project is for SPS to be able to generate data itself by valid means which it can verify. Collaborative efforts allow resources to be shared and should lead SPS to move toward developing its capacity to generate data sooner. Linkages with collegial institutions are rudimentary but growing:

The 'quinquina' report was [the] first time 'Banque du Zaire' sent someone with ((an SPS staff member)) to do a mission in Kivu. They now say they are interested in working with SEP [SPS].

But capacity can easily be eroded, and there is evidence that the loss of experienced trainees has in some cases forced SPS to rely more heavily on technical advisors than at an earlier date. Of the estimated 25 meetings between SPS and the Ministry of Plan to

work on the Five Year Plan, the primary persons representing SPS at those meetings were the Director of SPS and two technical advisors. As one of the staff at the Department of Plan stated: "We are contacting mostly ((technical advisor named)) on the 'Plan Quinquinale'." One staff member of another department made it clear that they were disappointed not to see more Zairians in their meetings:

Now we realize we are working more with the experts [technical advisors]. I always ask myself, is it because they [Zairians] are not competent or because they do not want to use them?

If institutional development requires greater use of indigenous resources in order to achieve sustainability, then the role played by Zairians must increase while the role of external technical advisors will likely decrease. Of course, this discussion will always lead back to the question of finances.

On the output side, new linkages have developed which are making SPS a more visible and accepted institution. SPS has produced studies and reports, provided staff for collaborative work, received numerous official and unofficial requests for services.

#### SPS Outputs: Studies

One of the most visible results of the activity of SPS are the studies and reports which SPS has published. The reports are outputs which represent something of SPS's productivity and its increased capacity over the last decade.

Virtually all of SPS's outputs have been produced since 1981. There are two major reasons for this: 1) initiation of the

Agriculture Sector Studies Project provided the funds as well as the mandate to produce studies; and 2) only after training were trainees available to participate in the field work, analysis and writing required to produce the studies. Who actually has been responsible for the work done on these studies is one indicator of the institutional capacity of SPS.

An assessment was made to determine who has been responsible for producing the studies. 7/ A few were produced by single authors, but many were produced with the input of a number of people. Over half (about 57 percent) of the work on the studies have been done by participant-trainees. Technical advisors accounted for about 29 percent of the work on the studies. The remaining work was done by a mixture of Comparison Group members (4 percent), other SPS staff (7 percent), and persons outside SPS. These estimates are consistent with independent estimates of the changes over time of the contributions made to SPS's Regional Reports.

Regional reports have been prepared for all eight regions (excludes the metropolitan region of Kinshasa). On the first report (Equateur), technical advisors did as much as 80-90 percent of the work. By the time the staff completed the fifth report (Kasai-Oriental), Zairian staff completed 75 percent of the work. The trend toward increased Zairian responsibility for the work is significant. This is an instance of increasing institutional indigenous capacity of SPS.

Unfortunatly, there is a unpleasant footnote to this story. Loss of experienced staff has at the same time reduced

institutional capacity. As one technical advisor noted: "If ((former trainee who left SPS)) were still here, I would only have to do about 10 percent--to put it in final form." In fact, members of the team of Zairians who produced the first reports are largely gone, and a new group must be formed to completed regional reports still in progress. Institutional gains are fragile in the Zairian context.

#### Demand for SPS Services

SPS's studies also represent linkages with users of their outputs and that demand confirms the perception of SPS's capacity. The contrast between the first five years before the training program (1975-79) and the post-training period (1980-1985) could not be much greater:

When I was back, you couldn't show a publication of Bureau d'Etudes [SPS]. It didn't exist. But now, thanks to the people coming from the U.S. (Zairois trainees), this Bureau is now appreciated throughout the country.

When asked what indicated this appreciation, he replied:

"Because different businesses and departments come there to buy publications. I think this shows the work is appreciated." These outputs represent one of the ways SPS has begun to legitimize itself as a serious center for agricultural research for policy and decision making.

The evidence of SPS's increased stature is also reflected in the demands placed upon it by the Department of Agriculture officials and, to a lesser extent, by sister departments, international organizations and private sector organizations. SPS

staff members report that SPS receives numerous requests to perform services from outside SPS. The realization of the potential significance of these requests emerged from the interviews. (See tables 37-40.)

One interview question focused on "special requests," defined as requests from within or outside the the Department of Agriculture beyond the ordinary, routine work done on a daily basis. 8/ Many of the requests are for feasibility studies for persons who wish to get credit to farm or to operate an agribusiness.

Most SPS staff have received such requests, and the majority have taken on some jobs. Only one-fourth of the Training Group and over one-third of the Comparison Group said they had never received any such requests. Another fifteen percent said they had received but declined such requests, primarily because they did not have time to do the work.

Special requests such as these are significant to individuals because in many cases they receive some remuneration for the work. The requests are significant to the institution because some of the requests become a part of the organizations' work load, requiring staff time and other resources. The largest proportion of the requests (43.8 percent) has come from the private sector.

Interviews indicated that about one-third of the requests received by staff originate within or come through the the Department of Agriculture channels. Special requests for service sometimes come through "official" channels of authority and at

other times through informal channels. Requests are sometimes received at work and at other times at home. Interview responses indicate that about 46 percent of the special requests which individuals had received personally were considered by them to be unofficial, while over 39 percent were official (table 38).

The fact that SPS staff receive these types of requests suggests that there is significant demand for the skills and services which SPS staff are capable of providing. From a development perspective an important question is, "Who has access to SPS resources for such purposes? Individuals reported doing special jobs for persons and groups ranging from the top official in the Department of Agriculture, to business men, church groups and missionaries.

In tapping the human resource bank of SPS, the private sector, international organizations and others outside official channels provide incentives which are shaping the type of institution which SPS is becoming. How do these compare with incentives within the system? How are such incentives used? How and who decides what has priority? What are the implications for the direction of institutional development, the scope of development, and the extent of participation in power and in the economic system? Does the work of SPS become adjunct to one's real career goals?

The answers to these questions help to determine what type of institutional development is taking place in SPS. Conceivably, the demand for SPS services could be tapped as a resource for

providing staff incentives, increasing SPS's influence and helping to insure the long-term sustainability of SPS's work.

#### Pool of Skilled Leadership

SPS has unwittingly been a pool of skilled leadership which increasingly has been drawn upon by the Department of Agriculture and other organizations. In the short-run this has had a negative effect on the institutionalization process by removing some of the most capable and experienced staff from the organization. Paradoxically, a broader and longer view suggests that the departure of staff may make the survival and institutionalization of SPS more probable in the future. The current Director of SPS takes that type of perspective:

We cannot consider it a loss if they go from here to another section in the Department of Agriculture. Now I have many persons/friends with whom I can talk, and it's very helpful. It helps us to have a better understanding of agriculture for planning. So the loss is really to the private companies....On the contrary, we should be very proud of them. You should be very proud if you will meet one of your former participants as an administrator in the World Bank.

By providing channels of communication from SPS to other Directions, former SPS staff increase the influence of SPS. For example, collaboration between SPS and the Direction of Prices, Markets, Commodities and Credit (DPMCC) has been good, in no small measure due to the fact that DPMCC is directed by a former SPS staff member who also was a participant-trainee. The collaboration of the two organizations was important in implementing and evaluating the price liberalization program during the early 1980s.

As indicated earlier, four other former trainees from SPS have served as formal Advisors ("Conseillers") to the top two policy makers in the the Department of Agriculture. One other has served as Director of Rural Development and Extension. To some extent, the loss of technical expertise at one level has been at least partially compensated at another level.

### Agricultural Policy

Perhaps because the linkages are hard to specify, the staff of SPS itself are moderate in claims of affecting agricultural policy. SPS staff, including former participants and technical advisors, have played important roles in formulating, implementing and evaluating agricultural policies already. Price liberalization is a case in point.

The major impetus for price liberalization came from the International Monetary Fund, but SPS staff have been actively involved in the the Government of Zaire's efforts to modify their agricultural price policy. SPS staff served as an important resource to policy makers on that issue. One of the principal papers underlying the policy for liberalization of agricultural prices was written within SPS, principally by a technical advisor. Later, SPS staff also conducted impact studies to measure the results of the liberalization policy. SPS used its expertise to confirm the effects of agricultural policy decisions and provided the basis for understanding and interpretation.

### Link between Training and Policy

The link between the training program and agriculture policy was eloquently identified by the former Director of SPS:

We have many projects for producing many agriculture products, but we have only one which is producing trained people to give ((leadership)). Others produce new varieties of corn. This project produces a new variety of men. I think the men are more important....for making agricultural policy.

Leadership plays a central role in some approaches to management and refers to the ability "to persuade others, to bring new vision, and to change peoples' values and priorities." 9/ At times such skills are as important as the technical skills provided in agricultural economics training.

If agricultural policies are to be changed, such change will not be made by technicians collecting data and doing studies. While essential to the process, clear and reliable channels of communication, effective interpretation and sound advice are also required. Increasingly, participant-trainees are likely to be cast in roles shaping agricultural policy making and implementation.

#### Coping within a Hostile Macro-economic Environment

The serious economic decline in Zaire over the past decade has made the attempts at institutional development difficult. Staff attrition has been a major problem. The difficult economic circumstances put pressure on individuals to supplement their incomes. Some take on special requests. Others try to hold more than one job. Missions are seen as a means of earning additional income. Projects have been forced to pay premiums and provide other benefits to retain staff. Organizations striving to become institutions find themselves coping for years on end, realizing the limits of the micro-institution in the macro-environment.

Some of the major question marks about institutionalization of SPS are created by factors over which most individuals and organizations have little power. Some have become cynical:

Agricultural activities have no place ((in Zaire)). They ((those in authority)) are using the money to do their own work....I'm going to do the report and explain some of these things.

He showed me a handwritten draft he was working on.

Another responded to the question of change in agricultural policy over the past five years by saying,

To say there is a change, I don't think ((so)). There is a big difference between the fact we are doing good studies and the interests of 'the big man.' His interests are different....From my point of view, there is not an agricultural policy.

Another stated even more strongly,

Oh, no. The policy is always the same. The President got some money for some projects, but to me the policy is always the same.

Others continue to maintain a degree of hope. One key outside observer stated it this way:

It is difficult to pinpoint that the SPS is a factor in development, but it is a positive factor....I am a member of Commissions, and I can see it is positive....

Another key inside observer added:

...it's only the beginning, not for the training, but for the organization. It is useful because a lot of people are coming from [the] private sector to buy those studies. I think training had some part to play in that even though I don't know the content of the courses.

Institutional development is the most important and the most difficult task to accomplish. Time will tell if the success of SPS is sustainable and will make more evident the role which international training has played.

## NOTES - Chapter 4

1/ The analysis of variance was used to determine the comparability of the groups. By controlling for possible differences, one might better account for possible outcomes in terms of advancement, work success, career decisions, which might be attributable to factors represented by the proxy variables. The analysis was useful for distinguishing the groups basically by age and family size at the time when all persons had been chosen to go for training. The other statistically significant outcomes for the grouped data by training are readily explained: Both experience with technical advisors and rank at the beginning of training were functions of the training program. Since the majority of Training Group members were outside of Zaire, contacts with Comparison Group members were bound to be greater. By 1979, those who remained in Zaire had already advance to higher levels than their colleagues in training. The implications of this are discussed later. Although the data on educational marks for the Comparison Group were extremely limited (6 of 16 records), there was no significant difference between the two groups. However, it was interesting to note that those who remained in SPS had higher education marks than those who took jobs elsewhere. See table 21 for a summary of the results and appendix D for a complete list of variables.

2/ The barren work atmosphere went beyond absence of physical facilities. On my first visit to Zaire (January 1982), the slow progress of students writing theses in Zaire was the subject of a discussion between two University of Georgia professors, the USAID mission director, and myself. Dr. Jack Thompson, the first resident thesis advisor (September 1981-September 1983), arrived in Zaire in September 1981. Dr. Thompson nearly caused the mission director to fall out of his chair with laughter as he described the emotional state of one of the students who had been working for several months without any consistent supervision or assistance: "When I arrived here, ((named participant)) was in a deep funk!" How apt a description for one attempting to complete serious academic research in a setting which was at that time void of the basic support systems required to do the work.

3/ For 14 of the participants, return to Zaire was not the end of their academic programs but the beginning of field research. If they wanted to earn their masters degrees, they had to do their research in Zaire. Most completed the work within a year to 15 months. One took almost two years to complete. Of the ten persons interviewed who did their research in Zaire, eight said that overall the experience was positive. However, they qualified the overall assessment by citing the difficulties which they encountered. When asked what future policy they would recommend for thesis research, they were more ambivalent. (See tables 41 and 42.)

4/ The other major division of SPS is the Agronomic and Animal Science Research and Training (DAAST). In May 1986 there

were 12 professionals and 13 support staff in DAAST. DAAST was not included in this study because it was not a part of SPS during the training program period. A separate training and technical assistance effort began in DAAST in 1984. Another minor division (eleven staff) have been moved about frequently and did not appear to have any significant work. They were subsequently moved to another department. Neither of these divisions were involved with the work of the other two divisions.

5/ Jolly and Howze, Project 070 Second Mid-term Evaluation.

6/ Jerald Hage and Kurt Finsterbusch, Organizational change as A Development Strategy: Models & Tactics for Improving Third World Organizations, Boulder, CO: Lynne Rienner Publishers, 1987), pp. 65-68.

7/ Data were collected from key persons to determine who worked on each study. These person made estimates of the percentage of work done on each study. Of all the studies, reports and documents identified, there were 101 contributions made. The numbers of contributions were weighted by the percentage the contribution in order to determine the individual percentages by each group. Just under 3 percent of the documents produced were identified by corporate (SPS) authorship only.

8/ The responses indicated that the distinction is sometimes blurred. Any request that comes through official channels is considered "regular work," therefore official. Theoretically, all the work of SPS must be approved through the office of the Director.

The highest level officials often engage technicians to do do feasibility studies for them. As one individual reported, "I used to work for other persons and do some jobs for them, for example...Secretary of State for Agriculture....He introduced me to C/E who needed credit. From 19.. and even now. Before that time I didn't know one could do that for money until ((S/E)) introduced me. I did 8 or 10." In another instance the "Commissaire d'Etat," (C/E) placed a request for work clearly identified as work for a friend of his. There were other examples from Comparison Group members also.

Requests channeled from the office of the top policy maker in the Department of Agriculture are viewed as authoritative, if not official. Since the Commissioner of State is directly involved in major staff decisions for agricultural parastatals and internationally funded projects, such "special requests" are not likely to be taken lightly.

9/ Louise G. White, Creating Opportunities for Change: Approaches to Managing Development Programs, Boulder, CO: Lynne Rienner Publishers, 1987), pp. 205-206.

## CHAPTER V

### THE BASIS FOR A RESEARCH PROGRAM

This chapter summarizes the results of the study, discusses the results in relationship to the preliminary hypotheses, and draws conclusions about the methodology. Modifications to the hypotheses and the methodology are suggested for future research.

Someone has suggested that an appropriate analogy for evaluating impact is that of a person taking target practice--without a target! Only after taking a few shots, the individual explores the terrain to find the marks left by the impact of the bullets and then draws a "bull's eye" around the mark and calls it a direct hit. Is evaluating impact of training simply an exercise in drawing a bull's eye mark around outcomes? The answer is no, even though there is an undeniable and desirable element of openness to discovering unexpected outcomes. The impacts of training may be positive or negative. It is the underlying concept of development which provides the substantive criteria for judging whether the impacts discovered are products of development processes or simply results of non-developmental change. Such judgments are best made in light of the context of those most affected.

The international training program has had an impact on individuals, on the Studies and Planning Service (SPS) and on other components of the agricultural sector beyond SPS. The focus of the Agricultural Economic Development Project was to develop within the SPS of the Department of Agriculture, Zaire the capacity to collect and analyze data on the agriculture sector, to produce reports and studies from that data and to provide sound advice for agricultural policy and decision making.

Gains from training have been differentially distributed between individuals, SPS and other organizations. In providing trained personnel for key roles in formulating and implementing agricultural policy, training has had a greater impact than expected. In terms of the organizational and institutional development of SPS, the impact of training has been less than anticipated.

The two months I spent in Zaire gave me a greater appreciation of the complexity of the Zairian context. That stay also reinforced my awareness of the harshness of the macro-economic environment in which Zairians live each day. Those first-hand experiences were a reminder of the magnitude of the obstacles to development but also gave me a greater appreciation for what has been accomplished in SPS. There were also glimmers of hope in the lives of many individuals, in spite of the severity of outward circumstances. Before looking at the influence of the macro-environment from the perspective of Zairians, the following section examines the methodology developed for this research.

## Conclusions about the Methodology

The theoretical framework was formulated around four preliminary hypotheses. The hypotheses state that international training contributes to individual, organizational, and institutional development. Indicators of development were articulated at each of the three levels.

The fieldwork in Zaire explored and examined first-hand evidence of the impact of training at each level. Participant-trainees provided first-hand information through in-depth, focused interviews, using a series of open-ended questions. Comparable information was collected from a somewhat smaller Comparison Group. Comparison Group data allowed for limited control in assessing the impact of international training. Key observers provided additional perspective on the evolution of SPS and the role of participant-trainees and other persons in that evolutionary process. Personal observations and other sources of information, including written records, studies and reports of SPS, provided further dimensions to the picture of the impact of training.

By using multiple sources of information with multiple methods of data collection, a "chain of evidence" was linked together to provide a thorough, coherent and persuasive case study of the impact of international training on individuals and the Studies and Planning Service.

### Strengths of the Methodology

1. Thoroughness - Even though almost 63 percent of the participant-trainees were interviewed, collecting data from other

sources (Comparison Group, key observers, non-interview data) increased confidence that bias potentially inherent in small numbers was minimized. For example, interviewing Comparison Group members forced me to recognize that there were other capable people who did not go to the U.S. for training and that some of these persons have contributed significantly to development in Zaire. Using the Comparison Group helped to insure a more balanced interpretation of the positive impact which training has had.

2. Documentation of procedures - The research strategy was documented from beginning to end. This documentation will allow verification of procedures used in data collection and data analysis so that longitudinal studies in Zaire or cross-case studies elsewhere can be made to further refine the methodology and to allow comparison of the impact of training in different settings.

3. Basis for a research program - The careful preservation of the original data and data generated at various levels of analysis, along with the procedural documentation, will allow the case to be augmented with data not obtained in the original study to strengthen the case as it is or to re-focus the case in future research.

#### Suggestions for Strengthening the Methodology

1. Reduce time consuming tasks - As conducted, the data compilation and analysis processes were extraordinarily time consuming. The labor-intensiveness of the research limits the size of project or program to which the methodology might be

applied. However, improvements in word processing and database management programs on microcomputers could make adaptations of the methodology feasible by making qualitative data manipulation easier and quicker.

2. Use a research team - A team effort is needed to handle data more efficiently and effectively. Data collection and analysis could and should overlap. The first steps of the analytical process is the transcription/editing of interviews followed by sorting responses by question and juxtaposing the responses to the same question in order to allow accurate comparisons to be made. With two or three persons working together, these processes can begin almost at the same time and be carried on simultaneously, providing useful feedback to the interviewer. Multiple perspectives on the process should also help maintain or appropriately redirect the focus of the research.

3. Multiple visits to the field are desirable - Change of time and place bring perspective to field research. Also, breaking up the interviewing process by one or two weeks for concentrated data analysis should improve the quality of the data collected by helping to maintain the proper focus, reducing the number--or at least the length--of "blind alleys" pursued, and opening up more fruitful areas to pursue.

A trade-off between the number of site visits and the number on the research team may be necessary and feasible. Additional team members should reduce the number of site visits needed. Extra eyes and ears could provide multiple perspectives throughout the fieldwork.

## Discoveries

1. Impact of international training has reached beyond SPS. As participant-trainees have been drawn into other positions within the agricultural sector, in a number of cases, their work has contributed to the broader objectives of agricultural development through policy formulation and implementation. There has necessarily been a trade-off. As individuals have taken new positions in the agriculture sector, SPS has given up its technical expertise, but in return it has gained greater access to agricultural policy and decision making. Some Zairian leaders and technical advisors recognize the potential gains as well as the immediate loss:

[Assessment of (Trainees leaving) SPS]...I don't think we should think that is all bad. I think it's been kind of on-the-job training. I think we should think this is positive that they are so much in demand. I think we should be happy.

Institutional development may be promoted more effectively if the full potential of the linkages created between SPS and other agencies were utilized. An approach to training which recognizes the limits of SPS's ability to retain trained staff in the face of continued strong external demand seems appropriate. SPS could very well become the core unit for staff and institutional development of the entire Department of Agriculture.

2. The micro-environment to which participant-trainees returned has significantly affected the impact of training. There is an essential complementarity between individual use of training and organizational capacity to utilize the training if its trainees. The probability that individuals will use the

knowledge and skills from training is increased by an "enabling" work environment. In addition to having adequate salaries and benefits, it is important to have an organized work environment that allows individuals to use (and further develop) their skills. The presence of persons with similar experience and/or training to whom newly trained persons can relate on technical matters help to insure trained persons are utilized and that more of the benefits of training are captured for specific development purposes. At times technical advisors played this crucial role. In other instances, the team atmosphere created by technicians with similar training experiences seemed to provide an enabling atmosphere in which participants could use their new skills.

The methodology developed for the research is appropriate for laying the ground work for assessing impact of international training for institutional development. The broad base of data and documented procedures provides a solid foundation for future research into two areas: impact in terms of institutional development of SPS and impact in terms of agricultural policy for the whole agricultural sector. This study provides an appropriate beginning for an ongoing research program.

#### The Pervasive Influence of a Hostile Macro-environment

The development of SPS has been strongly affected by the macro-environment in which it must operate. The macro-environment contain forces which contradict micro-level efforts at institutional development. Chapter two includes a review of literature on Zaire written primarily by observers from outside Zairian culture. The critique presented there was reinforced and

elaborated by Zairians in the interviews. They spoke with firm conviction in their analyses of the Zairian situation.

Many individuals were reluctant to speak critically of Zaire's situation. This was evident in both the words and the body language of many who were interviewed. When asked 'What constraints do you feel are the greatest ones affecting development in Zaire?', one person responded, "(Smile) I am very open-minded, but right now I don't think I can say. (If we were in the States, I could say, but [certain people] have been advised not to say anything in the last few days.)" In spite of his initial reluctance, he did go on to talk about the situation in Zaire. In a situation where even expressing one's thoughts may have negative personal consequences, what proportion of decisions and actions are more by fear of consequences than anything else? Perhaps the majority.

Interestingly, the roles played by people, not finances, technology or external factors, were cited most often as major constraints to development in Zaire. Key roles included resource management (28.1 percent) and political leadership (17.1 percent) (table 46). Interviewees provided startling examples of major constraints to development.

The first [constraint] is management. The second is means of communication. ((Could you elaborate?)) Whew! Concerning the management. The sale of copper gives us only \$1 billion, equal to Z 60 billion (no cobalt, nothing else). Those Z 60 billion is the equivalent of the budget ((national)) for this year. This budget is established for 12 months. But they only open it for six months. They open it in April and close it in October. We are only using Z 30 billion in these six months. And the rest is disappearing. This means in the first three months and the last three months of the year, we are not working. ... (He's very excited now). (I want to

return to the other question.) Another example. The minerals, instead of going to the country are going toward Angola, in a part that is very unstable. But instead ((of going through Angola)), we just need one part of the railroad from \_\_\_\_\_ to Kinshasa. But instead of building the railroad, we built a dam that we don't use. ... I cannot give you some exact figure, but this dam is what contributes to the large balance of payments deficit.

In spite of initial reluctance to express opinions, this was not an exceptional comment. The absence of development-oriented policies at the national level has had serious micro-level consequences, and Zairian civil servants know that quite well. Government agencies face tremendous obstacles and pressures in their efforts to carry out their functions. Nearly everyone I interviewed seemed to take their work quite seriously. Of course, those with no external sources of funds had practically nothing to work with. That was reflected in the austerity of their work environments and the depressed expressions on their faces.

Scarce foreign exchange has increasingly been absorbed to service foreign debt incurred for projects of dubious value. By 1985 external debt servicing absorbed 55 percent of Zaire's foreign exchange. 1/ Other investments in infrastructure have been sorely neglected. The second most frequently mentioned set of constraints were transportation and communication problems. The constraint on agricultural production is severe:

[W]hen I talk about development, we're talking about food deficit. Some of the agricultural products, I know pretty well that farmers are cultivating those products. But very often it is the organization, the framework, which is lacking....I will give you a concrete example. In the South Band survey, I went to the Zones in ((region)). Over there in those 'localités,' we visited their fields, and every couple in this 'localité' has more than five fields. And they were continuing to farm their fields. However, they could not sell the products of the farm. But they still

do the fields. So they cannot sell their crops because the roads are too bad and the merchants do not want to take their trucks there.

Neglect of infrastructure such as roads, bridges, railways, other means of communication has severely constrained agricultural development in Zaire by severely limiting market development. There are few incentives for agricultural production beyond basic subsistence farming. The losers are nearly everyone, producers and consumers.

Interestingly, almost no one interviewed looked outside Zaire as the source of their problems. Less than a fifth of the responses suggested that financial and technical problems were major constraints to development. As one respondent stated, "First one is 'man Zairian' himself. Because if we [were] able to see the money we receive for development, we don't use it for that. We can't ((achieve)) development."

According to Zairians, mismanagement at the macro-level has created the major constraints to development, creating distortions in resource allocation, and placing tremendous pressures on micro-level organizations and individuals who live and work within those micro-environments. In Zaire, organizations such as SPS struggle to provide even minimal incentives to retain staff, not to speak of trying to develop long-term institutional capacity.

The following sections summarize the findings about the indicators of impact. A discussion of the findings follows each figure. The degree of support in the data is identified by "yes," "no" or "mixed" (ambiguous). A brief explanation for the

conclusions is given. Finally, conclusions about patterns indicated in the data are discussed.

#### Hypotheses about Impact on Individuals

The data in this study show that international training contributes to personal and professional development. Personal and professional development are intertwined. Well-being (1.11) is a composite of material and non-material factors.

#### HYPOTHESIS 1:

International training contributes to personal development

No.	Indicator	Support	Explanation
1.12	Self-esteem	Yes	Express, show confid.
1.2	Satisfying personal relat.	Yes	Problems managed
1.5	New roles, commitments	No	Limit social contacts
1.3	Material improvements	Mixed	Less than expected
1.11	Sense of well-being	Mixed	Economic insecurity

Most participant-trainees were satisfied with their training--the knowledge, skills and experience enhanced their self-esteem (1.12) by giving them a sense of professional competence (1.4). However, the lack of opportunity to earn what they considered to be an adequate income left those still working in SPS less than satisfied. Participants' sense of efficacy, which depends both on individual capacity and environmental conditions, has increased as SPS has provided an increasingly coherent and purposeful micro-environment in which to work and use their skills.

HYPOTHESIS 2:

International training contributes to professional development

No.	Indicator	Support	Explanation
1.4	Professional competence	Yes	Self-, other-confirmed
2.1	Use knowledge, skills	Yes	Studies confirm
2.2	Work relationships	Mixed	Improvements with time
2.3	Roles: formal, informal	Mixed	Structural constraints
2.4	Transfer training	Mixed	Need better evidence
1.13	Efficacy	Mixed	Environ. constraints

Personal relationships between participant-trainees were strengthened as they gained a sense of common identity through training. In most cases family relationships were managed effectively. About one-third of the Training Group took families to the U.S. In other cases, long separations forced adjustments as fathers were strangers to infants left behind and as spouses sometimes felt ashamed not to have shared the experience. Three cases of post-training divorce were reported.

Although limited in the beginning years by lack of facilities and organization, participants report that in more recent years, they have used their knowledge and skills in their work at SPS. Relationships with colleagues who went for training generally have been good. There has been greater distance between trainees and non-trainees, reinforced by organizational and physical separation. Training Group members expressed greater dissatisfaction with their formal roles than Comparison Group members. Some Training Group members took pride in their informal roles.

Does the repeated concern for better salaries reflect a preoccupation with material goods, induced by being accustomed to

a higher standard of living in the U.S.? I was impressed by the decline in real standard of living which all have suffered. Comparison Group members express similar concerns and experiences: "I used to do soccer and swimming, but I don't do it anymore because I don't have the means. Now I read." An almost identical quote can be cited from the Training Group. Those who have known a higher standard of living may feel the squeeze on living standard more than others, but the decline is real and has affected all. There is no firm evidence that the behavior of the Training Group is any different than that of the Comparison Group.

Indicator 1.5 represents my expectation that individuals exposed to the individualism and voluntarism of the U.S. would manifest those values by involving themselves in community activities. To the contrary, those who went for training seemed more detached from the social life of the broader community. One Training Group member was concerned with being misunderstood: "I prefer to stay home. When you get involved with people, you can get into some trouble. You can be misunderstood. I prefer to stay with people of my own level ((named a former participant-trainee))."

The political climate of Zaire came into play at this point. The mention of involvement in community activities often caused cautious expressions: "No, I don't want to go into that stuff. There are a lot of problems with that. There isn't any democracy here." Another reported that their alumni meetings had been stopped: "Only temporarily. But the authority does not like

for us to meet together....We were told by the Chef du Quartier or Chef du Zone that he does not like for people to meet." Another who was active in a church noted that "We only meet to pray. We don't meet for any discussions."

Some tensions along various group lines were reported:

1) preferential treatment based on ethnic group, type of degree (or lack of degree), university attended; 2) conflict between technical advisors and Zairians and conflict between trainees and supervisors who were not trained in U.S. The exact cause and nature of these tensions and conflicts was not always apparent. However, in some cases improved communication, coordination and collaboration centered on Zairian leadership would eliminate some of the causes for mistrust and allow more effective involvement of all technical advisors and staff in the work of SPS.

In other cases, there appear to be genuine conflicts of interest centered on power and authority. There was no evidence that these conflicts were being effectively addressed. One source of tension is the practice of importing technical advisors for work which trained Zairians feel they can do. Zairians correctly perceive that their own professional development and living standards would be enhanced if donor agencies would use Zairians more for special assignments. Institutionalization of indigenous capability would also be promoted by using Zairians more often.

A better indicator of transfer of training would include the experience of staff who worked closely with participant-trainees to determine what knowledge and skills they learned from participant-trainees. The indicator used relied on reports from

participant-trainees. Learners are likely to remember fairly accurately from whom and what they have learned on the job.

### Organizational and Institutional Development

Organization and institution are two sides of a single coin, yet they are not identical concepts. The Studies and Planning Service is an organization in process of becoming an institution. SPS will never cease being an organization, but long-term survival requires that it develop institutional qualities.

Institutional development is growth in an organization's capacity to fulfill its central purpose or mission over time and to secure its place in its environment. As an institution, SPS should be judged by its capacity to collect and analyze agricultural sector data, to produce reports and evaluations, and to provide sound advice for agricultural policy. Taken together, these functions constitute SPS's purpose, its reason for existing.

There are six institutional qualities whose presence or absence indicate the degree of institutionalization which has taken place within SPS (or any organization): 1) survivability, 2) legitimacy, 3) capacity to perform (competence), 4) linkages or exchanges, 5) adaptability and 6) sustainability. 2/ Survival is necessary but not sufficient for institutional development. Sustainability implies maintenance of function over time and raises the thorny question of how the work of SPS will be financed in the long-run.

### Survival, Sustainability and Legitimacy

Legitimacy means acceptability to essential actors within

the environment in which an individual or organization functions. At present SPS has three major sources of legitimacy: 1) the Secretariat of the Department of Agriculture; 2) international donors; and increasingly, 3) collegial organizations and recipients of SPS's outputs and services. In the near-term and medium-term (15 years), SPS's survival will depend on its capacity to secure international donor assistance. In being so dependent, SPS will remain highly vulnerable to major external political and economic forces. SPS's hope for long-term sustainability depends much more on its ability to tap domestic, indigenous resources, thereby diversifying its sources of legitimacy and reducing its vulnerability to forces outside Zaire.

#### Competence, Performance and Linkages

SPS has been successful in developing its technical capacity, its performance in terms of outputs and services, its linkages within the Department of Agriculture and, to a lesser extent, its linkages with organizations outside the Department. These have contributed to SPS's organizational and institutional development.

Organizational development focuses on the capacity of SPS to structure itself and order its activities in such a way as to utilize its resources effectively. Institutional development focuses on the capacity of the organization to link itself in mutually beneficial relations with organizations which legitimate SPS by providing it with resources, accepting its outputs and services or collaborating in its mission-oriented activities.

Distinguishing organizational development and institutional development is complicated because they overlap and represent two aspects of a single entity. Organizational development focuses primarily on the effectiveness of internal operations. Institutional development focuses on the organization in relationship to its external environment and its capacity to fulfill its mission over time.

#### Hypothesis about Impact on SPS

Organizational development requires more than trained staff. In 1980 trained staff returned to Zaire, but conditions were such that many left in a short time. Two things are crucial for retaining trained staff: 1) adequate salaries and benefits and 2) meaningful work, using the knowledge and skills acquired. SPS has increased its performance in both areas, largely due to donor financing, technical advisors, and continuity of Zairian leadership.

#### HYPOTHESIS 3:

International training contributes to organizational development through participant-trainees

No.	Indicator	Support	Explanation
3.7	Proportion trained staff	Yes	Divisional differ.
3.3	Retain trainees	Mixed	Low percentage
3.8	Allocation of resources	Yes	Limited evidence
3.9	Incentive structure	Yes	Significant improve.
3.6	Output quality, quantity	Yes	Significant improve.
3.10	"Esprit de corps"	Yes	Pride in organization
3.1	Use trainee know., skill	Yes	Increased over years
3.5	Use trainees in new roles	Mixed	Some formal, informal
3.2	Facilit. transfer of train	Mixed	Informal, on-the-job

SPS has been able to recruit new staff readily. SPS is known to have the best-trained staff in the DOA and has a reputation as a place to get good training. Retaining trained staff has been more problematic, primarily due to relatively low salaries.

SPS also has developed a reputation for being able to get jobs done, therefore it continues to attract additional resources, primarily from external donors.

There is limited evidence on the allocation of resources. Staff appreciate having funds to go on missions to the interior, both because they augment their incomes with per diem and because they have a chance to learn. Since knowledge of the state and potential of Zairian agriculture is important to the work SPS does, the extent that effective missions are accomplished reflects that SPS is functioning as it should.

Output quantity and quality have increased significantly, the product of the convergence of a mandate for studies, funding for studies, and trained staff available to conduct the studies.

A formal scale for salary premiums based on education was put in place to make incentives clear. Missions and training experiences are also used as a part of the incentive structure.

A strong "esprit de corps" exists in SPS. Staff members note with pride that SPS is known as "le cerveau" (the brain) or "the engine" within the DOA.

Summary: SPS has developed as an organization, acquiring the best-trained staff in Department of Agriculture and producing the best information available on Zairian agriculture. Staff trained under the project have been central to these developments as

reflected in their relatively high percentage of contributions to SPS's outputs.

#### Hypothesis on Institutionalization

Because institutionalization occurs only over time, less can be said about SPS's capacity at this point. In perhaps another five years, the story of institutionalization will be more complete. However, having made that qualification, there are some positive signs of institutionalization in SPS.

SPS's concrete outputs, increased status and influence within the Department of Agriculture have increased. Also, linkages with other departments and agencies demonstrate that SPS is becoming more appreciated and valued in its environment. This was not universal, however. In several interviews of persons in organizations whose staff should have known more about SPS revealed their lack of knowledge of SPS's publications. Ironically, even some former SPS staff acted as if SPS had not done any work since that person had left.

With instances, SPS has begun to establish itself as a reliable partner to other Government of Zaire agencies as well, creating expectations of expanded collaboration. This is particularly true with the Department of Plan with whom SPS has worked closely on the Five Year Plan.

Internally, SPS's elevation in 1982 to the rank of a Direction reporting directly to the Secretary of State improved its influence on agricultural policy making. Other evaluation reports indicate that at least the Agency for International Development pushed hard for that recognition and status for SPS. However, the regular selection of participant-trainees to serve

as advisors in the Secretariat and the constant demand for the services of the Director of SPS confirm that appreciation for SPS has increased within the Department of Agriculture.

One key observer (outsider) noted that SPS has attracted new responsibilities which would otherwise have been directed to another Direction in the Department of Agriculture:

The fact they have gained so much influence over the years indicates some institutionalization. In fact some of the projects' responsibility has gone to them that would have been at ((another Direction))....

#### HYPOTHESIS 4:

International training contributes to institutional development through participant-trainees

No.	Indicator	Support	Explanation
4.1	Effectiveness in mission	Mixed	Improved overall
4.11	Continuity of functions	Mixed	Some, not all achieved
4.2	Roles in DOA	Yes	Attract. new responsib
4.22	Policy of DOA toward SPS	Yes	Elevated status
4.25	Status increased	Yes	Especially in DOA
4.21	Influence increased	Yes	Director central role
4.23	DOA budget	No	Declining share
4.3	Value to users, collabor.	Yes	DOA, Plan Dept.
4.31	Demand for outputs, services	Yes	Requests increase
4.32	Use of outputs, services	Yes	Sales of public.
3.4	Attract resources	Yes	New staff;donor assist
4.6	Resource base	No	Greater donor depend.
4.4	Trainee contrib. identified	Yes	Studies produced
4.41	New activities using train.	Yes	Plan Department
4.42	New roles using trainees	Mixed	Gains and losses

Along the same lines:

[I understand all agricultural projects go through ((the Director of SPS)):] Yes, and that is because he is responsive. He has a reputation for responding and follow-through. Since most donors recognize he has a

key role in determining agricultural policy, they decide to go there because eventually it's going to go back there anyway.

Increased demand and use of SPS reports and studies and SPS staff by outsiders reflects increased value of the organization to others. Another key observer (outsider) provided these observations:

(Someone comes) maybe every two weeks from another project, asking if they can get copies of this or that [SPS reports]....There's no doubt there would be more demand, I'd be ready to go to them [SPS] more quickly and send people if they had a more reliable system of data collection and reporting methodology. But they are very weak on that.

...  
Three times recently I have had other projects try to come and take people for work in their projects....

Although the weakness of SPS in its capacity to collect data in systematic fashion comes through in this observation, the increased value of SPS's outputs--studies and staff--also comes through clearly.

Trainees have contributed to establishing SPS as a credible research agency within the agricultural sector and have helped to institutionalize its functions. This is reflected in the outputs they have produced, the roles they have played, and the reputations they have developed in conjunction with their work.

While its ongoing linkages with international donors demonstrate that SPS has engendered confidence in itself as an increasingly able partner in development, those linkages are also a reminder that maintaining support for that capacity is highly vulnerable to external forces much larger than SPS. This is particularly a concern in light of the Department of Agriculture's reduction in support for SPS. At present, SPS is

almost totally dependent on the goodwill and commitment of international donors to sustain its life and work. Zairians are realistic about the limited value of projects.

### Limits of Projects

While there is agreement that SPS is an effective organization, the large question of the capacity of the Department of Agriculture to institutionalize the functions begun by projects remains. One outsider made the following observation

The project is here so all of the agents...are here. Because they get the 'prime,' they are happy. That is why the 'Commissaire d'Etat' is always coming here for help--because it is working. But it hurts the other Directions. If you go there, it's the emptiness, no one is there....I have some friends in ((another Department of Agriculture Direction)), and they have nothing to do. They are just twiddling their thumbs. The same is true in ((another Department of Agriculture Direction)).

Another key observer stated,

If the work of Department of Agriculture is working, it is because of some projects. We cannot expect much now in the administration of Department of Agriculture. There is a conflict existing between the projects. In the project there are precise objectives, the means, and autonomy of management that you don't have in the other part (administrative, non-project). It's a conflict which, if not resolved, may endanger all of agriculture....Talking about projects, they are spread all over the country which is big, so their effect is small. They work well while they have the support. And when this assistance goes they will fail. Can we call this success?

...

[He posed a rhetorical question and gave an answer:]  
Can the government take over these projects after their money is finished? [Paraphrased] No. I don't think so. That is the question I always ask myself.

### Conclusions

This study has confirmed that international training has contributed positively to individual and organizational

development under fairly adverse circumstances. Those achievements have been less than desired in some ways and more than expected in other ways. The gains required a significant commitment of resources over more than a decade. Another decade is likely to be required before the story of institutionalization takes a definitive form.

There are inklings of institutional capacity, but to a great extent, the roles assumed by the organization remain personality dependent rather than institutionally embedded. What will occur when a new director comes to SPS? How continuous will the flow of new trainees be into the organization? Will the macro-environment show significant improvements such that the micro-climates--really, oases in a desert of bureaucratic incapacity--created in the niches of the Zairian environment be provided sustenance from indigenous sources? How long will external donors maintain an interest in sustaining an organization whose natural parent has so often treated it like an orphan?

What will it take to chart a new course for development in Zaire? Outsiders do not have the answer to that question. Undoubtedly, if there is an answer, it is complex.

### Political Will

What will it take to chart a new course for development in Zaire? One answer:

Of course I am a technician, a thinker who will present the ideas, but we need the political will to carry it out. ((How does one begin to get the political will?)) By the respect of the budget and the agricultural policy. ((I sought clarification of 'respect of budget' quoting another person who said that half the budget is not spent for its intended purpose. [The] reply:)) Less

than half. As soon as the budget is made, it involves an engagement of the country to carry that out.

When asked whether international training has addressed these issues in any way, the respondent gave the following response:

I think it is bad thinking (to think) that the training (can do anything about these matters). The training is only valuable when a person already has satisfied his basic needs. Otherwise, it can do nothing. There are many primary factors which must be addressed. ((It's a chicken or egg situation:)) No. (It's not the chicken or egg issue.) Forget the training. The training we already got. As agricultural engineer[s] (that training) has given us a role. What we have to ask is 'Is the role being properly done?' The answer is no. But the reason [is] that there are all kinds of primary factors which are not being made. When (there is training) without solving those basic needs, the training can do nothing. It is a false thinking. First what you have to do is put the good structure in place, and then provide the right conditions. Then when that is done, you can add some training.

...  
For the time being (we) must try to solve the fundamental problem. Everyone wants to survive, and it's not much ((that prevents this)). It's just a political constraint. [What is] The biggest constraint to development: Because it is a very centralized government. The centralized politics.

I asked this individual what kept him from despairing. He replied:

'Who says I haven't despaired?' I said, 'Well, you're still doing your job.' He replied, 'But I have a family. I have to provide for them.' Something later prompted me to say, 'So you haven't despaired after all!' He said, 'No. this will change. I can't despair. I have my children. Maybe I will just be a man of sacrifice, but for them it will be different.'

How do new patterns of behavior get established? They begin with people. Sometimes an individual, sometimes a group. Not necessarily people who have been given formal roles, but persons who through commitment and leadership create new roles that didn't exist before: "something created out of nothing. Or almost nothing."

This study has tried to see impact from the perspective of Zairians. Zairians know better than outsiders what the obstacles to development. The need for widespread structural changes were articulated often by Zairians, but major changes in policy take time. The role of Zairians is crucial. Is there a role for outsiders?

Institutionalization requires long-term commitments by donors and governments alike. Training and technical assistance provided to the Studies and Planning Service over the past 15 years serves as a model. It has been noticed, and its influence is increasing. That is the type of commitment required for institutionalization. The potential for broadening impact is there and should be tapped.

What has been achieved in training and technical assistance ought not be sacrificed by uncritical acceptance of national policies which destroy micro-level efforts. Zairians responsible for building the foundation for agriculture policy have said it: Zaire does not have an agriculture policy. International support should be provided to strengthen the position of the individuals working hard to create an agricultural policy which is productive for small farmers and the masses in the rural areas.

A micro-climate has been fostered in SPS, but it requires sustenance, not just from external donors but from indigenous resources. The Government of Zaire's share should be increasing, not decreasing as in recent past. With collaborative support, the "men [and women] of sacrifice" within that Government have made a start. Their lives and efforts ought to be the focusing lens for international actors who want to see development sustained.

NOTES - Chapter 5

1/ The World Bank, Eastern and Southern Africa Regional Office, "Towards Sustained Growth: The Need for Structural Adjustment: A Progress Report to the Consultative Group for Zaire, Paris, April 21-22, 1986.

2/ Kenneth E. Boulding, "The Sources of Legitimacy," in Norman Uphoff and Warren Ilchman, ed. Political Economy of Development: Theoretical and Empirical Contributions (Berkeley, CA: University of California Press, 1972), p. 24.

## APPENDIX A: TABLES

TABLE 2

LOCATION AND EMPLOYMENT OF ALL U.S. TRAINEES UNDER AGRICULTURAL  
ECONOMIC DEVELOPMENT PROJECT AND POPULATION FROM WHICH  
COMPARISON GROUP WAS DRAWN  
SEPTEMBER 1986 \*

Location and employment	Agric. Econ. Dev. Project trainees		Population for comparison	
ZAIRE:				
Dept. of Agric	19	[35.8]	13	[56.5]
Public sector	8	[15.1]	4	[17.4]
Int'l. devel. org.	6	[11.3]	-	--
Private sector	5	[9.4]	1	[4.3]
Unemployed	1	[1.9]	1	[4.3]
Subtotal	(39)	(73.5)	(19)	(82.5)
OUTSIDE ZAIRE:				
Int'l. devel. org.	4	[7.5]	2	[8.7]
Europe	3	[5.7]	-	--
USA	6	[11.3]	-	--
Subtotal	(13)	(24.5)	(2)	(8.7)
UNKNOWN	(1)	(1.9)	(2)	(8.7)
Total	53	(100.0)	23	(100.0)

\* During the field work, the total number identified as appropriate to fit into the Comparison Group was 23. After the fieldwork was completed, 15 additional names were identified who might have fit into the Comparison Group. These were persons who had worked in the Division of Agricultural Statistics (DSA). No data on their training, tenure at DSA or departure date were provided. Seven were reported to be working in Zaire, 1 was studying in Belgium, and 8 could not be located.

APPENDIX A: TABLES

TABLE 3

LENGTH OF TIME COMPARISON GROUP MEMBERS SPENT IN OVERSEAS  
TRAINING OR WORK EXPERIENCE BY EMPLOYMENT

Length of time	Comparison Group		Combined
	Inside SPS	Outside SPS	
Years: 3 - 6	2 (20.0)	2 (33.3)	4 (25.5)
Months: 8 - 14	5 (50.0)	2 (33.3)	7 (43.75)
None or <1 mo.	3 (30.0)	2 (33.3)	5 (31.25)
Total	10 (100.0)	6 (100.0)	16 (100.0)

## APPENDIX A: TABLES

TABLE 4

EDUCATION LEVEL OF ALL PROFESSIONAL STAFF BY DIVISION,  
STUDIES AND PLANNING SERVICE, MAY 1986

Level of education	Division of:				Combined	
	Agricultural Strategy & Plan.		Agricultural Statistics			
Masters degree (19-20 yrs.)	10	(24.4)	1	(2.7)	11	(14.1)
Bachelors degree or equiv. (16-18 yrs.)	31	(75.6)	15	(40.5)	46	(60.0)
Technical diploma (15 yrs)	--		15	(40.5)	15	(19.2)
Secondary school or less (12 yrs. or less)	--		6	(16.2)	6	(7.7)
Totals	41	(100.0)	37	(100.0)	78	(100.0)

APPENDIX A: TABLES

TABLE 5

NUMBER OF PROFESSIONAL AND SUPPORT STAFF BY POSITION AND  
BY DIVISION, STUDIES AND PLANNING SERVICE, MAY 1986

Positions	Division of:				Combined	
	Agricultural Strategy & Plan.		Agricultural Statistics			
Professionals:						
Director	--	--	--	--	1*	(0.08)
Division Chief	2	(2.8)	1	(2.0)	3	(2.5)
Bureau Chief	8	(11.3)	5	(10.0)	13	(10.7)
Technician	30	(42.3)	31	(62.0)	61	(50.0)
Subtotal	40	[56.3]	37	[74.0]	78*	[63.9]
Support staff	31	[43.7]	13	[26.0]	44	[36.1]
Total	71	(100.0)	50	(100.0)	122*	(100.0)

\* Director not included in either division figures,  
therefore row total is 121.

## APPENDIX A: TABLES

TABLE 6

SUMMARY OF KEY CHARACTERISTICS OF MEMBERS OF THE TRAINING AND  
COMPARISON GROUPS AT SELECTED TIMES  
(PROXY VARIABLES)

Characteristics	Training Group	Comparison Group	All Respondents
<b>Sex:</b>			
Male	31	16	47
Female	1	--	1
<b>Education:</b>			
Years	16.5	16.5	16.5
Marks (avg)	61.7	59.9	61.4
Father (yrs)	5.8	5.1	5.6
Mother (yrs)	3.4	2.0	2.9
Age	28.3	32.5	29.5
<b>Family:</b>			
Married	22	9	31
Children	1.4	2.86	1.87
In USA	7	--	7
<b>Experience at SPS:</b>			
Before (mo.)	24.1	34.4	27.5
After (mo.)	32.3	47.5	37.4
Total (mo.)	56.4	81.8	64.9
<b>Rank (1 - 4):</b>			
Begin at SPS	1.22	1.19	1.2
Before training	1.31	1.50	1.4
High or departure	1.56	1.81	1.6
May 1986	2.47	2.25	2.4
<b>Training:</b>			
English (mo.)	6.2	--	6.2
Total length (mo.)	29.6	--	29.6
GPA	3.2	--	3.2
Thesis-Zaire (mo.)	14.5	--	14.5

APPENDIX A: TABLES

TABLE 7  
YEARS OF EDUCATION FOR PARENTS OF TRAINING AND  
COMPARISON GROUP MEMBERS

Years of education	Training Group		Comparison Group		All Respondents	
Father						
No formal educ.	5	(17.9)	3	(21.4)	8	(19.0)
Primary (1-6)	13	(46.4)	8	(57.1)	21	(50.0)
Orient. cycle (7-8)	5	(17.9)	1	(7.1)	6	(14.3)
Secondary (9-12)	5	(17.9)	2	(14.3)	7	(16.7)
Totals	28	(100.0)	14	(100.0)	42	(100.0)
No data	4		2		6	
Mother						
No formal educ.	7	(25.0)	7	(50.0)	14	(33.3)
Primary (1-6)	20	(71.4)	7	(50.0)	27	(64.3)
Orient. cycle (7-8)	1	(3.6)	--	--	1	(2.4)
Secondary	--	--	--	--	--	--
Totals	28	(100.0)	14	(100.0)	42	(100.0)
No data	4		2		6	

## APPENDIX A: TABLES

TABLE 8

## OCCUPATION OF PARENTS OF TRAINING AND COMPARISON GROUP MEMBERS

Occupation type	Training Group		Comparison Group		All Respondents	
Father						
Farming	5	(21.7)	4	(44.4)	9	(28.1)
Business	3	(13.0)	1	(11.1)	4	(12.5)
Education	2	(8.7)	1	(11.1)	3	(9.4)
Skilled trade	2	(8.7)	1	(11.1)	3	(9.4)
Government service	2	(8.7)	--	--	2	(6.3)
NR *	9	(39.1)	2	(22.2)	11	(34.4)
Totals	23	(100.0)	9	(100.0)	32	(100.0)
No data =	9		7		16	
Mother						
Housewife	11	(39.3)	1	(7.7)	12	(29.3)
Farmer	7	(25.0)	4	(30.8)	11	(26.8)
Business	1	(3.6)	2	(15.4)	3	(7.3)
NR *	9	(32.1)	6	(46.2)	15	(36.6)
Totals	28	(100.0)	13	(100.0)	41	(100.0)
No data =	4		3		7	

\* NR = Includes all responses to category on written supplemental questionnaire which were either "none" or were left blank. On the same line of the questionnaire a blank was left for years of education. Some responses gave no response or wrote "none" under occupation while providing a response to the years of education. "None" may be better interpreted "no formal occupation" which may actually suggest such persons are farmers. No response to the occupation category might be similarly interpreted. These seem more plausible than accepting a literal interpretation of "none" as not working or retired from a formal occupation. A number of responses were "retired" or "dead." These were included under "no data."

## APPENDIX A: TABLES

TABLE 9

## REGION OF ORIGIN OF MEMBERS OF TRAINING AND COMPARISON GROUPS

Region *	Training Group	Comparison Group	All Respondents
Bandundu	5 (15.6)	2 (12.5)	7 (14.6)
Bas-Zaire	7 (21.9)	2 (12.5)	9 (18.8)
Equateur	2 (6.3)	3 (18.8)	5 (10.4)
Haut-Zaire	2 (6.3)	-- --	2 (4.1)
Kasai-Occidental	4 (12.5)	1 (6.3)	5 (10.4)
Kasai-Oriental	6 (18.8)	4 (25.0)	10 (20.8)
Kivu	5 (15.6)	3 (18.8)	8 (16.7)
Shaba	1 (3.1)	1 (6.3)	2 (4.2)
Total	32 (100.0)	16 (100.0)	48 (100.0)
Average no.	4	2	6

\* Administrative units taken from "Atlas de la Republique du Zaire," (Paris: Editions Jeune Afrique, 1978).

APPENDIX A: TABLES

TABLE 10

AGE OF RESPONDENTS AT THE BEGINNING OF TRAINING BY  
TRAINING GROUP MEMBERSHIP \*

Range of Ages	Training Group	Comparison Group	All Respondents
24 - 26	6 (18.8)	-- --	6 (13.0)
27 - 29	18 (56.2)	3 (21.4)	21 (45.7)
30 - 32	7 (21.9)	3 (21.5)	10 (21.7)
33 - 36	1 (3.1)	7 (50.0)	8 (17.4)
37	-- --	1 (7.1)	1 (2.2)
Totals	32 (100.0)	14 (100.0)	46 (100.0)
No data =	--	2	2

\* For those who did not go for training in the U.S. (Comparison Group), age was computed from December 31, 1979. January 1980 was the date when the last group of participant-trainees were sent to the U.S. for training under the Agricultural Economic Development Project and thus marks the end of the process of selection for training.

## APPENDIX A: TABLES

TABLE 11

AVERAGE MARKS FOR POST-SECONDARY STUDIES IN ZAIRE BY TRAINING

Range of marks	Training Group	Comparison Group	All Respondents
> 63	6 (21.4)	2 (33.3)	8 (23.5)
60-63	15 (53.6)	3 (50.0)	18 (52.9)
< 60	7 (25.0)	1 (16.7)	8 (23.5)
Totals	28 (100.0)	6 (100.0)	34 (100.0)
No data	4	10	14

## APPENDIX A: TABLES

TABLE 12  
FAMILY STATUS AND LOCATION AT THE BEGINNING OF TRAINING  
BY TRAINING \*

Item	Training Group		Comparison Group		All Respondents	
<b>Married:</b>						
Yes	22	(68.75)	9	(64.3)	31	(67.4)
No	10	(31.25)	5	(35.7)	15	(32.6)
Totals	32	(100.0)	14	(100.0)	46	(100.0)
No data	--		2		2	
<b>Number of children:</b>						
Average	1.43		2.86		1.87	
None	11	(34.4)	5	(35.7)	16	(34.8)
1-3	20	(62.5)	2	(14.3)	22	(47.8)
4-6	1	(3.1)	7	(50.0)	8	(17.4)
Totals	32	(100.0)	14	(100.0)	46	(100.0)
No data	--		2		2	
<b>Family in USA:</b>						
Yes	7	(21.9)	na		7	(21.9)
No	25	(78.1)	na		25	(78.1)
Totals	32	(100.0)	na		32	(100.0)

\* For those who did not go for training in the U.S. (Comparison Group), age was computed from December 31, 1979. January 1980 was the date when the last group of participant-trainees were sent to the U.S. for training under the Agricultural Economic Development Project and thus marks the end of the process of selection for training.

na = not applicable

## APPENDIX A: TABLES

TABLE 13

DISTRIBUTION OF RESPONDENTS BY TRAINING, DIVISION AND TIME PERIOD

Division	Training Group		Comparison Group		All Respondents	
Before training						
DASP	18	(56.3)	9	(56.3)	24	(50.0)
DAS	13	(40.6)	6	(37.5)	22	(45.8)
Admin.	1	(3.1)	1	(6.3)	1	(2.1)
Totals	32	(100.0)	16	(100.0)	48	(100.0)
After training						
DASP	20	(62.5)	8	(61.5)	25	(55.6)
DAS	12	(37.5)	5	(38.5)	20	(44.4)
Admin.	--	--	--	--	--	--
Totals	32	(100.0)	13	(100.0)	45	(100.0)
No data	--		3		3	

DASP = Division of Agricultural Strategy and Planning  
DAS = Division of Agricultural Statistics  
Admin. = Administration

APPENDIX A: TABLES

TABLE 14

MONTHS OF SERVICE BEFORE AND AFTER TRAINING BY TRAINING

Months of Service	Training Group	Comparison Group	All Respondents
Before training			
1-12	6 (18.8)	4 (25.0)	10 (20.8)
13-24	15 (46.9)	3 (18.8)	18 (37.5)
25-36	6 (18.8)	3 (18.8)	9 (18.8)
>36	5 (15.6)	6 (37.5)	11 (22.9)
Totals	32 (100.0)	16 (100.0)	48 (100.0)
No data =	--	--	--
After training *			
1-12	6 (18.8)	5 (31.25)	11 (22.9)
13-24	4 (12.5)	-- --	4 (8.3)
25-36	9 (28.1)	-- --	9 (18.8)
>36	13 (40.6)	11 (68.75)	24 (50.0)
Totals	32 (100.0)	16 (100.0)	48 (100.0)
No data =	--	--	--

\* At time of departure for training if before January 1980 or January 1980.

## APPENDIX A: TABLES

TABLE 15

PROFESSIONAL RANK OF ALL RESPONDENTS AT SELECTED TIMES \*

Rank	Period of time							
	Begin SPS		Before training		High SPS or at leaving		Most recent (May 86)	
1	39	(81.3)	27	(56.25)	22	(45.8)	12	(25.0)
2	8	(16.7)	15	(31.25)	22	(45.8)	11	(22.9)
3	1	(2.1)	3	(6.25)	3	(6.3)	19	(39.6)
4	--	--	--	--	1	(2.1)	6	(12.5)
Totals	48	(100.0)	45	(93.75)	48	(100.0)	48	(100.0)
No data	--	--	3	(6.25)	--	--	--	--

\* The scale was constructed by assigning one (1) to the position of technician or statistician, the entry level for university graduates (holders of "ingenieur agronome" or "licence" degrees) and then assigning a higher number for each step up in position above that level. Following are the major categories to which all others were made equivalent:

- 6 = Minister ("Commissaire d'Etat")  
Vice-minister ("Secrtaire d'Etat")
- 5 = General Secretary ("Secrtaire Generale")
- 4 = Director of Service or Direction ("Directeur de Service")  
Project Director ("Directeur de Projet")
- 3 = Division Chief ("Chef de Division")  
Advisor ("Conseiller")
- 2 = Bureau Chief ("Chef de Bureau")
- 1 = Technician, statistician ("Technicien, statisticien")  
"Attache de Bureau")

APPENDIX A: TABLES

TABLE 16  
 PROFESSIONAL RANK BY TRAINING AT SELECTED TIMES \*

Rank	Period of time							
	Begin SPS		Before training		High SPS or at leaving		Most recent (May 86)	
Training Group								
1	26	(81.3)	23	(71.9)	15	(46.9)	8	(25.0)
2	5	(15.6)	8	(25.0)	16	(50.0)	5	(15.6)
3	1	(3.1)	1	(3.1)	1	(3.1)	15	(46.9)
4	--	--	--	--	--	--	4	(12.5)
Total	32	(100.0)	32	(100.0)	32	(100.0)	32	(100.0)
Comparison Group								
1	13	(81.3)	4	(25.0)	7	(43.75)	4	(25.0)
2	3	(18.7)	7	(43.75)	6	(37.5)	6	(37.5)
3	--	--	2	(12.5)	2	(12.5)	4	(25.0)
4	--	--	--	--	1	(6.25)	2	(12.5)
Total	16	(100.0)	13	(81.3)	16	(100.0)	16	(100.0)
No data	--	--	3	(18.7)	--	--	--	--

## APPENDIX A: TABLES

TABLE 17

COMPARISON OF INCOME AND EXPENSES OF  
TRAINING AND COMPARISON GROUPS AT SELECTED TIMES

Income and expenses *	Training Group		Comparison Group		All Respondents	
Income:						
	(Nom.)	(Real)	(Nom.)	(Real)	(Nom.)	(Real)
At Time of Departure from SPS	-----Zaires per month-----					
Salary:						
At SPS (departure)		72		85		74
At new job		169		136		163
Difference		97		51		89
Salary percapita: **						
At SPS (departure)		21.2		17.5		19.2
At new job		49.7		28.0		42.1
Percentage change TG:CG ratio of salary increase	1.46	234		160		220
May 1986:						
	(Nom.)	(Real)	(Nom.)	(Real)	(Nom.)	(Real)
Salary of respondents	20776	279	14324	193	18625	250
Spouse income	1937	26	656	9	1510	20
Other income	1042	14	1919	26	1334	18
Benef: Fuel	1829	25	113	2	1257	17
Total income	25584	344	17012	230	22726	305
Percapita income **	4264	57	2127	29	3392	46
TG:CG Ratios:						
Salary	1.45					
Total income	1.50					

(Table 17 continued on next page)

## APPENDIX A: TABLES

TABLE 17--Continued

Income and expenses *	Training Group	Comparison Group	All Respondents
Expenses:			
-----Zaires per month-----			
	(Nom.) (Real)	(Nom.) (Real)	(Nom.) (Real)
May 1986:			
Food	8914	10107	9354
Rent	3016	2536	2812
Utilities	737	693	722
Tuition			
Major expenses	12667	13336	12888
No. in household: **			
At departure (estim.)	3.4	4.86	3.87
May 1986	6.0	8.0	6.7
No. in school	3.6	5.2	4.1

\* Real values were computed using 1975 as the base year (1975 = 100). Figures for each year were deflated using figures from the Banque du Zaire, Rapport Annuel 1984-85. May 1986 figures were deflated with the 1984 figure (7,437.4 = 100 Z), the most recent figure available.

\*\* Per capita salary at departure and per capita income are computed with different household figures. Per capita income figures are based on household members present in March-May 1986 and were provided by interviewees. Estimates of per capita income at departure from SPS were made by adding two adults (parents) to number of children in family at time of departure for training or January 1980 (Comparison Group). Since family size continued to increase up to May 1986, this method of estimation probably underestimates the number in the household at the actual time of departure from SPS for those in the Training Group thereby overestimating the per capita salary at departure from SPS.

## APPENDIX A: TABLES

TABLE 18

DETAILS OF LOCATION AND EMPLOYMENT OF ALL PARTICIPANT-TRAINEES AND MEMBERS OF POPULATION FROM WHICH COMPARISON GROUP WAS DRAWN  
MAY 1986 \*

Location and employment	Participant-trainees (all)	Comparison population
<b>ZAIRE:</b>		
Department of Agriculture:	18 [34.0]	13 [56.5]
STUDIES AND PLANNING SERVICE (SPS):		
DASP	11	3
DAS	2	7
Rural Promotion Director	1	-
Markets, Prices, Credit Director	1	-
Advisor, Commission of State	2	-
General Admin. of Projects	1	-
Admin. Aide, Secretary of State	-	1
Regional Director, Bandundu	-	1
Other public sector:	8 [15.1]	4 [17.4]
OZACAF	1	-
SOFIDE	1	-
Agric. Credit Bank, Deputy Dir.	1	-
BUNASEM, Director	-	1
Department of Plan	1	1
Bank of Zaire	2	1
REGIDESO	1	1
Univ.: Superior Instit. of Stat.	1	-
International Organizations (Zaire):	6 [11.3]	- --
FAO - Natl. Fertilizer Project	1	-
World Bank:		
Maize Project, Kasai-Oriental	1	-
Ag. Dev. Prog., Lulua - Dir.	1	-
Technoserv	2	-
UNICEF, Boma	1	-
Private sector:	6 [11.3]	1 [4.3]
Rwacico	1	-
British-American Tobacco (Bumba)	1	-
Zaire Texaco	1	-
Zaire Mobil	1	-
SOZADIX	1	-
Private consultant	-	1
Unemployed (formerly BAT)	1	1
Subtotal	(38) (71.7)	(19) (82.5)

(Table 18 continued on next page)

## APPENDIX A: TABLES

TABLE 18--Continued  
 DETAILS OF LOCATION AND EMPLOYMENT OF ALL PARTICIPANT-TRAINEES AND  
 MEMBERS OF POPULATION FROM WHICH COMPARISON GROUP WAS DRAWN  
 MAY 1986 \*

Location and employment	Participant- trainees (all)		Comparison population	
OUTSIDE ZAIRE:				
International Organiz. (ex-Zaire):	4	[7.5]	2	[8.7]
Inst. Ag. & Zoo. Research, Burundi	2		-	
African Dev. Bank, Ivory Coast	1		1	
UN Development Programme, Zambia	1		-	
FAO, Guinea Bissau	-		1	
USA:				
Non-return	5	[11.3]	-	--
Further studies	2	[3.8]	-	
Europe - unknown	3	[5.7]	-	--
Location unknown	1	[1.9]	2	[8.7]
Subtotal	(15)	(28.3)	(2)	(8.7)
Total	53	(100.0)	23	(100.0)

\* During the field work, the total number identified as appropriate to fit into the Comparison Group was 23. After the fieldwork was completed, 15 additional names were identified who might have fit into the Comparison Group. These were persons who had worked in the Division of Agricultural Statistics (DSA). No data on their training, tenure at DSA or departure date were provided. Seven were reported to be working in Zaire, 1 was studying in Belgium, and 8 could not be located.

## APPENDIX A: TABLES

TABLE 19

NUMBER OF TRAINING GROUP MEMBERS LEAVING THE STUDIES AND PLANNING SERVICE BY YEAR, DIVISION AND LENGTH OF SERVICE

Year	Division of:		Combined	Service after train. (avg. mo.)
	Agric. Strategy and Planning	Agric. Statistics		
1980	1 (10.0)	5 (50.0)	6 (28.6)	14
1981	2 (20.0)	2 (20.0)	4 (19.0)	17.3
1982	1 (10.0)	1 (10.0)	2 (9.5)	22
1983	1 (10.0)	1 (10.0)	2 (9.5)	29.5
1984	4 (40.0)	1 (10.0)	6 (28.6)	39.0
1985	1 (10.0)	- --	1 (4.8)	49.0
Total	10 (100.0)	10 (100.0)	21* (100.0)	25.2**
No data =	--	--	--	

\* Division for one person not identified.

\*\* Weighted average.

## APPENDIX A: TABLES

TABLE 20

## SUMMARY OF ANALYSIS OF VARIANCE RESULTS FOR SELECTED VARIABLES

Variable	Mean	Grouped by training: TG, CG (PR > F)	Grouped by employment: SPS, Ex-SPS (PR > F)
FATHER'S EDUC. (yrs)	5.6	0.5668	0.4709
MOTHER'S EDUC. (yrs)	2.9	0.0879	0.5838
YEARS OF EDUC.	16.5	0.8999	0.2691
EDUC. MARKS	61.4	0.2389	0.0497
NO. OF CHILD.	1.9	0.0101*	0.2613
SPS SERVICE (yrs):			
BEFORE TRAIN.	2.4	0.2567	0.5576
AFTER TRAIN.	2.96	0.6845	0.0001*
TOTAL	2.2	0.0305	0.0001*
EXPERIENCE WITH TECH. ADVISORS: **			
1975	24.8	0.1793	0.8109
1976	23.4	0.8572	0.8302
1977	19.8	0.1667	0.5621
1978	23.1	0.4317	0.9004
1979	23.9	0.0335*	0.2935
1980	19.3	0.2585	0.7402
1981	19.8	0.3063	0.5222
1982	27.6	0.9331	0.2343
1983	31.3	0.0510	0.8410
1984	30.4	0.7359	0.1527
1985	29.4	0.9490	0.2423
RANK: ***			
BEGIN SPS	1.2	0.8269	0.3895
BEGIN TRAIN.	1.5	0.0079*	0.8751
HIGHEST	1.6	0.2471	0.8578
MAY 1986	2.4	0.4831	0.0001*
AGE (BEGIN. TRAIN)	29.6	0.0001*	0.0139*

\* Difference of means at .05 level of significance.

\*\* Index based on number of months of contact times degree of contact based on a five point scale (0-4).

\*\*\* Average values of rank on scale of 1 to 6. See table 15.

TG, CG = Training Group and Comparison Group  
SPS, Ex-SPS = Employment in SPS or outside SPS

APPENDIX A: TABLES (Interviews)

TABLE 21

MEANING OF THE INTERNATIONAL TRAINING PROGRAM TO MEMBERS OF THE  
TRAINING GROUP  
(Aggregated)\*

Types of responses	Training Group		Combined
	Inside SPS	Outside SPS	
Expressions of feeling or judgment:			
Positive	6 (50.0)	20 (83.3)	26 (72.2)
Negative	6 (50.0)	1 (4.2)	7 (19.4)
Qualified	-- --	3 (12.5)	3 (8.3)
Subtotal	12 (100.0)	24 (100.0)	36 (100.0)
Particular values:			
Knowledge, skill learning	23 (60.5)	53 (88.3)	76 (77.6)
Other values	15 (39.5)	7 (11.7)	22 (22.4)
Subtotal	38 (100.0)	60 (100.0)	98 (100.0)
Total	50 (100.0)	84 (100.0)	134 (100.0)
N =	11	21	32
Number in group	11	21	32
No response	--	--	--

\* Responses were aggregated from the primary question and the probing questions.

APPENDIX A: TABLES (Interviews)

TABLE 22

TRAINING GROUP MEMBER ATTITUDES TOWARD INTERNATIONAL  
TRAINING PROGRAM

Type of response	Training Group		Combined
	Inside SPS	Outside SPS	
Positive	10 (71.4)	16 (76.2)	26 (74.3)
Other	4 (28.6)	5 (23.8)	9 (25.7)
Total	14 (100.0)	21 (100.0)	35 (100.0)
N =	10	18	28
Number in group	11	21	32
No response	1	3	4

APPENDIX A: TABLES (Interviews)

TABLE 23

TRAINING GROUP MEMBER PERSPECTIVES ON FIT OF TRAINING TO  
THE WORK OF THE STUDIES AND PLANNING SERVICE (SPS)

Responses	Training Group		Combined
	Inside SPS	Outside SPS	
Fit(s) well	8 (61.5)	11 (84.6)	19 (73.1)
Qualifications	4 (30.8)	1 (7.7)	5 (19.2)
Does (did) not fit	1 (7.7)	1 (7.7)	2 (7.7)
Total	13 (100.0)	13 (100.0)	26 (100.0)
N =	9	13	22
Interview group	11	21	32
No response	2	8	10

APPENDIX A: TABLES (Interviews)

TABLE 24

KNOWLEDGE AND SKILLS USED MOST BY TRAINING GROUP MEMBERS  
IN THE STUDIES AND PLANNING SERVICE (SPS)

Responses	Training Group		Combined
	Inside SPS	Outside SPS	
<b>USED MOST:</b>			
Econ. analysis Statistics, data handling, computer	9 (50.0)	6 (30.0)	15 (39.5)
Field work	3 (16.7)	2 (10.0)	5 (13.2)
Management	1 (5.6)	3 (15.0)	4 (10.5)
Methodology	--	4 (20.0)	4 (10.5)
Gen. skills (education, English, writing)	--	2 (10.0)	2 (5.3)
Agric. policy	1 (5.6)	2 (10.0)	3 (7.9)
	1 (5.6)	--	1 (2.6)
<b>Subtotal</b>	<b>15 (83.3)</b>	<b>19 (95.0)</b>	<b>34 (89.5)</b>
<b>NOT USED:</b>			
Training in general	1 (5.6)	1 (5.0)	2 (5.3)
Economics	1 (5.6)	--	1 (2.6)
Project cycle	1 (5.6)	--	1 (2.6)
<b>Subtotal</b>	<b>3 (16.7)</b>	<b>1 (5.0)</b>	<b>4 (10.5)</b>
<b>Total</b>	<b>18 (100.0)</b>	<b>20 (100.0)</b>	<b>38 (100.0)</b>
<b>N =</b>	<b>10</b>	<b>11</b>	<b>21</b>
Interview group	11	21	32
No response	1	10	11

APPENDIX A: TABLES (Interviews)

TABLE 25

PARTICIPANT PERSPECTIVES ON THEIR RETURN TO ZAIRE

Types of responses	Training Group		Combined
	Inside SPS	Outside SPS	
Expressions of feeling:			
Happy, eager to return to Zaire	4	4	8
Sense of responsibility	1	2	3
Feeling of capability	--	1	1
Disappointment, frustration	2	3	5
Subtotal	(7) (25.9)	(10) (20.8)	(17) (22.7)
Adjustments:			
Economic:			
Diff. liv. cond., condit. of serv.	7	9	16
Diffic work cond.	3	1	4
Good adjustment, no problem	--	2	2
Subtotal	(10) (37.0)	(12) (25.0)	(22) (29.3)

(Table continued on next page.)

APPENDIX A: TABLES (Interviews)

TABLE 25--Continued

Types of responses	Training Group		Combined	
	Inside SPS	Outside SPS		
<b>Changes in relationships:</b>				
Family expectations	1	2		3
<b>Colleagues:</b>				
Superiority, jealous, favor.				
Loss in rel.rank	1	5		6
No problem	1	1		2
<b>Supervisors:</b>				
Negative Expressed	--	3		3
confidence	--	1		1
<b>Technical advisors:</b>				
Positive	--	1		1
Negative	1	--		1
Absent from DSA	1	--		1
<hr/>				
Subtotal	(5) (18.5)	(13) (27.1)		(18) (24.0)
<hr/>				
<b>Organizational:</b>				
Lack of advance., promo. opportunity	3	3		6
Low concern for work	1	--		1
No adjust. mechan.	--	1		1
SPS status increas.	1	1		2
<hr/>				
Subtotal	(5) (18.5)	(5) (10.4)		(10) (13.3)
<hr/>				
<b>Miscellaneous:</b>				
Much, big differ.	--	2		2
Not much differ.	--	1		1
Value changes	--	3		3
New occupation	--	1		1
Promo. out of SPS	--	1		1
<hr/>				
Subtotal	-- --	(8) (16.7)		(8) (10.7)
<hr/>				
Total	27 (100.0)	48 (100.0)		75 (100.0)
<hr/>				
N =	10	20		30
Interview group	11	21		32
No response	1	1		2

APPENDIX A: TABLES (Interviews)

TABLE 26

COMPARISON OF ATTITUDES TOWARD THE STUDIES AND PLANNING SERVICE  
BY TRAINING  
(AGGREGATED) \*

Type of response	Training Group	Comparison Group	All Respondents
By number of responses:			
Positive	54 (62.8)	15 (46.9)	69 (58.5)
Negative	30 (35.9)	13 (40.6)	43 (36.4)
Other	2 ( 2.3)	4 (12.5)	6 ( 5.1)
Responses	86 (100.0)	32 (100.0)	118 (100.0)
By number of respondents:			
Positive	17 (65.4)	11 (78.6)	28 (73.7)
Negative	7 (26.9)	10 (71.4)	17 (44.7)
Other	2 (7.7)	4 (28.6)	6 (15.8)
	**	**	**
N =	24	14	38
Number in group	32	16	48
No response	8	2	10

\* Aggregated responses include responses to the primary and follow-up probing questions.

\*\* Because some respondents gave both positive and negative responses (as well as others) neither numbers nor percentages are totalled.

APPENDIX A: TABLES (Interviews)

TABLE 27

MAJOR REASONS GIVEN FOR ATTITUDES TOWARD SPS BY TRAINING  
(AGGREGATED)

Responses	Training Group		Comparison Group		All Responden	
POSITIVE RESPONSES:						
SPS as a Workplace:	41	(75.9)	11	(73.3)	52	(75.4)
Atmosphere/environment	(20)		(2)		(22)	
Type of Work	(13)		(3)		(16)	
Place of Opportunity	(8)		(6)		(14)	
SPS and Its Mission:	11	(20.4)	4	(26.7)	15	(21.7)
Capacity:	(10)		(2)		(12)	
Role:	(1)		(2)		(3)	
Other Positive	2	(3.7)	--	--	2	( 2.9)
Subtotal	54	(100.0) [62.8]	15	(100.0) [46.9]	69	(100.0) [58.5]
NEGATIVE RESPONSES:						
Conditions of Service	18	(60.0)	4	(30.8)	22	(51.2)
Staff Relations	8	(26.7)	3	(23.1)	11	(25.6)
Bureaucratic System	2	( 6.7)	3	(23.1)	5	(11.6)
Technical Assistance	2	( 6.7)	1	( 7.7)	3	( 7.0)
Type of Work	--	--	2	(15.4)	2	( 4.7)
Subtotal	30	(100.0) [34.9]	13	(100.0) [40.6]	43	(100.0) [36.4]
OTHER RESPONSES:	2	[2.3]	4	[12.5]	6	[ 5.1]
Total Responses	86	[100.0]	32	[100.0]	118	[100.0]
N =	24		14		38	
Number in group	32		16		48	
No response	8		2		10	

APPENDIX A: TABLES (Interviews)

TABLE 28

MAJOR REASONS GIVEN BY TRAINING GROUP MEMBERS FOR ATTITUDES TOWARD SPS BY EMPLOYMENT (AGGREGATED)

Types of reasons	Training Group		Combined
	Inside SPS	Outside SPS	
<b>POSITIVE RESPONSES:</b>			
SPS as a Workplace:			
Work environment	9 (33.3)	11 (40.7)	20 (37.0)
Type of work	8 (29.6)	5 (18.5)	13 (24.1)
Place of Opportunity	5 (18.5)	3 (11.1)	8 (14.8)
SPS and Its Mission:			
Capability of organiz.	4 (14.8)	6 (22.2)	10 (18.5)
Role	1 (3.7)	-- --	1 (1.9)
Other positive:			
People	-- --	1 (3.7)	1 (1.9)
Other reasons	-- --	1 (18.5)	1 (1.9)
Subtotal	27 (100.0)	27 (100.0)	54 (100.0)
<b>NEGATIVE RESPONSES:</b>			
Conditions of Service			
Material conditions	8 (57.1)	10 (62.5)	18 (60.0)
Staff relations	2 (14.3)	6 (37.5)	8 (26.7)
Bureaucratic System			
Lack of promotions	2 (14.3)	-- --	2 (6.7)
Technical advisors	2 (14.3)	-- --	2 (6.7)
Subtotal	14 (100.0)	16 (100.0)	30 (100.0)
<b>OTHER RESPONSES:</b>			
Mixed	--	2	2
Total responses	41	45	86
N =	9	15	24
Number in group	11	21	32
No response	2	6	8

APPENDIX A: TABLES (Interviews)

TABLE 29

MAJOR REASONS GIVEN BY COMPARISON GROUP FOR ATTITUDES TOWARD SPS  
BY EMPLOYMENT (AGGREGATED)

Types of reasons	Comparison Group		Combined
	Inside SPS	Outside SPS	
POSITIVE RESPONSES:			[46.9]
Place of Opportunity	5	1	6 (40.0)
SPS as a Workplace: Atmosphere Type of Work	3	2	5 (33.3)
SPS and Its Mission: Capacity: Role:	4	--	4 (26.7)
Subtotal	12	3	15 (100.0)
NEGATIVE RESPONSES:			[40.6]
Conditions of Service	3	1	4 (30.8)
Bureaucratic System	3	--	3 (23.1)
Staff Relations	--	3	3 (23.1)
Type of Work	2	--	2 (15.4)
Technical Assistance	1	--	1 ( 7.7)
Subtotal	9	4	13 (100.0)
OTHER RESPONSES:	2	2	4 [12.5]
Total responses	23	9	32 [100.0]
N =	9	5	14
Number in group	10	6	16
No response	1	1	2

APPENDIX A: TABLES (Interviews)

TABLE 30

DISTRIBUTION OF TRAINING GROUP MEMBERS WHO  
SHARED TRAINING WITH OTHERS

Response	Training Group		Combined
	Inside SEP	Outside SEP	
Yes	7 (70.0)	15 (93.75)	22 (84.6)
No	3 (30.0)	1 (6.25)	4 (15.4)
Total	10 (100.0)	16 (100.0)	26 (100.0)
N =	10	16	26
Number in group	11	21	32
No response	1	5	6

APPENDIX A: TABLES (Interviews)

TABLE 31

NUMBER AND PERCENT OF TRAINING GROUP MEMBERS WHO SHARED TRAINING  
BY EMPLOYMENT

Employment	Training Group		Combined
	Inside SEP	Outside SEP	
Studies and Plan. Service (SPS)	8 (72.7)	11 (57.9)	19 (63.3)
Other job	-- --	7 (36.8)	7 (23.3)
None	3 (27.3)	1 ( 5.3)	4 (13.3)
Totals	11 (100.0)	19 (100.0)	30 (100.0)
N =	10	16	26
Number in group	11	21	32
No response	1	5	6

APPENDIX A: TABLES (Interviews)

TABLE 32

SETTINGS IN WHICH TRAINING GROUP MEMBERS SHARED TRAINING

Method	Training Group		Combined
	Inside SEP	Outside SEP	
On-the-job assistance	5 (45.5)	14 (73.7)	19 (63.3)
Seminar presentation	2 (18.2)	2 (10.5)	4 (13.3)
Private job (outside work)	1 (9.1)	2 (10.5)	3 (10.0)
None	3 (27.3)	1 (5.3)	4 (13.3)
<b>Totals</b>	<b>11 (100.0)</b>	<b>19 (100.0)</b>	<b>30 (100.0)</b>
N =	10	16	26
Number in group	11	21	32
No response	1	5	6

APPENDIX A: TABLES (Interviews)

TABLE 33

DESCRIPTION OF THE WORK IN THE STUDIES AND PLANNING SERVICE  
BY TRAINING

Type of responses	Training Group		Comparison Group		All Respondents	
Type of work	34	(59.6)	17	(73.9)	51	(63.75)
Constraints	5	(8.8)	1	(4.3)	6	(7.5)
Expression of feelings:						
Positive	4	(7.0)	--	--	4	(5.0)
Negative	3	(5.3)	--	--	3	(3.75)
Position or role	--	--	5	(21.7)	5	(6.25)
Other	11	(19.3)	--	--	11	(13.75)
<b>Total</b>	<b>57</b>	<b>(100.0)</b>	<b>23</b>	<b>(100.0)</b>	<b>80</b>	<b>(100.0)</b>
N =	22		16		38	
Number in group	32		16		48	
No response	9		--		9	

APPENDIX A: TABLES (Interviews)

TABLE 34

DESCRIPTION OF THE WORK OF TRAINING GROUP MEMBERS WHILE IN THE STUDIES AND PLANNING SERVICE BY EMPLOYMENT IN MAY 1986

Types of responses	Training Group		Combined
	Inside SPS	Outside SPS	
Type of work	19 (76.0)	15 (46.9)	34 (59.6)
Constraints on work	--	5 (15.6)	5 (8.8)
Expressions of feelings:			
Positive	--	4 (12.5)	4 (7.0)
Negative	--	3 (9.4)	3 (5.3)
Other	6 (24.0)	5 (15.6)	11 (19.3)
Total Responses	25 (100.0)	32 (100.0)	57 (100.0)
N =	8	15	22
Number in group	11	21	32
No response	3	6	9

APPENDIX A: TABLES (Interviews)

TABLE 35

DESCRIPTION OF THE WORK OF COMPARISON GROUP MEMBERS WHILE IN THE STUDIES AND PLANNING SERVICE BY EMPLOYMENT IN MAY 1986

Types of responses	Comparison Group		Combined
	Inside SPS	Outside SPS	
Type of work	11 (68.75)	6 (85.7)	17 (73.9)
Constraints	1 (6.25)	--	1 (4.3)
Position or role	4 (25.0)	1 (14.3)	5 (21.7)
Total	16 (100.00)	7 (100.0)	23 (100.0)
N =	10	6	16
Number in group	10	6	16
No response	--	--	--

APPENDIX A: TABLES (Interviews)

TABLE 36

REASONS GIVEN FOR LEAVING THE STUDIES AND PLANNING SERVICE  
BY TRAINING

Reasons	Training Group	Comparison Group	Combined
Economics	11 (55.0)	2 (50.0)	13 (54.2)
Assignment or selection	5 (25.0)	-- --	5 (20.8)
Relationships in SEP	3 (11.1)	1 (14.3)	4 (16.7)
Job offer	2 (7.4)	2 (28.6)	4 (16.7)
Others:	6 (22.2)	2 (28.6)	8 (23.5)
Use knowledge, skills	[3]	--	[3]
Promotion	[1]	[1]	[2]
Lack of equipment, facil.	[1]	--	[1]
Status	[1]	--	[1]
Not selected for training	--	[1]	[1]
Total	27 **	7 **	34 **
N =	20	4	24
Number in group (Ex-SPS)	21	6	27
No response	1	2	3

\*\* Percentages are not totalled since some respondents gave more than one reason for leaving SPS.

APPENDIX A: TABLES (Interviews)

TABLE 37

REQUESTS FOR SERVICES OF THE STUDIES AND PLANNING SERVICE (SPS) STAFF  
BY TRAINING AND EMPLOYMENT

Requests received by:	Training Group		Comparison Group	Combined
	Inside SEP	Outside SEP		
Organization	7 (29.2)	5 (22.7)	12 (50.0)	24 (34.3)
Individual	17 (70.8)	17 (77.3)	12 (50.0)	46 (65.7)
Total: requests	24 (100.0)	22 (100.0)	24 (100.0)	70 (100.0)
Avg. number of requests	1.54	1.00	0.86	1.10
No requests	3 <27.3>	4 <23.5>	5 <35.7>	12 <28.6>
Other responses	3	3	3	9
Total: responses	30 **	29 **	32 **	91 **
N =	11	17	14	42
Number in group	11	21	16	48
No response	--	4	2	6

APPENDIX A: TABLES (Interviews)

TABLE 38

CLASSIFICATION OF REQUESTS FOR SERVICES RECEIVED  
BY TRAINING AND EMPLOYMENT

Classifi- cation	Training Group		Comparison Group	Combined
	Inside SEP	Outside SEP		
Official	6 (35.3)	10 (58.8)	2 (16.7)	18 (39.1)
Unofficial	9 (52.9)	4 (23.5)	8 (66.7)	21 (45.7)
Declined	2 (11.8)	3 (17.6)	2 (16.7)	7 (15.2)
Totals	17 (100.0)	17 (100.0)	12 (100.0)	46 (100.0)
No requests	3 <27.3>	4 <23.5>	5 <35.7>	12 <28.6>
N =	11	17	14	42
Number in group	11	21	16	48
No response	--	4	2	6

APPENDIX A: TABLES (Interviews)

TABLE 39

NUMBER OF JOB OFFERS BY TRAINING AND EMPLOYMENT

Response	Training Group		Comparison Group	Combined
	Inside SEP	Outside SEP		
<b>Job offers:</b>				
Accepted	--	17	1	18
Declined	3	13	6	22
Total	3	30	7	40
Per respondent	0.27	1.76	0.50	0.95
None	4 <36.4>	2 <11.8>	4 <28.6>	10 <23.8>
Searching for job	2 <18.2>	2 <11.8>	1 <7.1>	5 <11.9>
N =	11	17	14	42
Number in group	11	21	16	48
No response	--	4	2	6

APPENDIX A: TABLES (Interviews)

TABLE 40

NUMBER OF REQUESTS FOR SPS STAFF SERVICES BY REQUESTING AGENCY,  
TRAINING, AND EMPLOYMENT

Recipient of request	Requesting agencies:				
	Govt. of Zaire		Int'l Organiz.	Private Sector	Combined
	DOA	Other			
Training Group - SEP					
S&P Service	5	--	2	--	7
Individuals:					
Official	3	--	3	--	6
Unofficial	--	--	--	9	9
Declined	--	--	--	2	2
Subtotal	8	--	5	11	24
Training Group - EX-SEP					
S&P Service	2	3	3	--	8
Individuals:					
Official	4	4	2	--	10
Unofficial	2	--	--	12	14
Declined	--	--	--	3	3
Subtotal	8	7	5	15	35
Comparison Group					
S&P Service	8	2	1	--	11
Individuals:					
Official	1	--	--	2	3
Unofficial	--	--	--	5	5
Declined	--	--	--	2	2
Subtotal	9	2	1	6	18
Totals	25	9	11	35	80
	(31.3)	(11.3)	(13.8)	(43.8)	(100.0)
N =	11	17	14	42	
Number in group	11	21	16	48	
No response	--	4	2	6	

APPENDIX A: TABLES (Interviews)

TABLE 41

ATTITUDES TOWARD THESIS RESEARCH IN ZAIRE BY THOSE WHO WROTE THESES IN ZAIRE

Response	Training Group		Combined
	Inside SPS	Outside SPS	
Personal experience:			
Positive	5 (100.0)	3 (60.0)	8 (80.0)
Negative	-- --	2 (40.0)	2 (20.0)
Total	5 (100.0)	5 (100.0)	10 (100.0)
Recommendation for future thesis research:			
In Zaire	4 (80.0)	2 (40.0)	6 (60.0)
In U.S.	-- --	1 (20.0)	1 (10.0)
Combination	1 (20.0)	2 (40.0)	3 (30.0)
Total	5 (100.0)	5 (100.0)	10 (100.0)
N =	5	5	10
Number in group *	5	5	10
No response	--	--	--

\* Fourteen participant trainees wrote their theses in Zaire. One doctoral candidate collected data in Zaire but returned to the U.S. university to write his dissertation. As of May 1986, the doctoral candidate had not returned to Zaire.

APPENDIX A: TABLES (Interviews)

TABLE 42

REASONS GIVEN FOR ATTITUDE TOWARD LOCATION OF THESIS WRITING  
BY THOSE WHO WROTE THESES IN ZAIRE

Reasons	Type of experience			
	Positive	Negative	Combined	
Difficult conditions (living, work)	3	3	6	(33.3)
Lack of access to one's university advisor	3	1	4	(22.2)
Length of time required	2	1	3	(16.7)
Low quality of data	2	--	2	(11.1)
Other	1	2	3	(16.7)
<b>Total</b>	<b>11</b>	<b>7</b>	<b>18</b>	<b>(100.0)</b>
N =	5	5	10	
Number in group *	5	5	10	
No response	--	--	--	

\* Fourteen participant trainees wrote their theses in Zaire. One doctoral candidate collected data in Zaire but returned to the U.S. university to write his dissertation. As of May 1986, the doctoral candidate had not returned to Zaire.

APPENDIX A: TABLES (Interviews)

TABLE 43

TYPE OF CONTACT TRAINING AND COMPARISON GROUP MEMBERS HAVE HAD WITH TECHNICAL ADVISORS

Types of Responses	Training Group	Comparison Group	Combined
Positive	16 (57.1)	12 (40.0)	28 (48.3)
Negative	4 (14.3)	5 (16.6)	9 (15.5)
Other	8 (28.6)	13 (43.3)	21 (36.2)
Total Responses	28 (100.0)	30 (100.0)	58 (100.0)
N =	14	14	28
Number in group	32	16	48
No response	18	2	20

APPENDIX A: TABLES (Interviews)

TABLE 44

DISTRIBUTION OF REFERENCES TO TECHNICAL ASSISTANCE GROUPS  
BY TRAINING

Types of Responses *	Training Group		Comparison Group		Combined	
U.S.A.	16	(57.1)	13	(43.3)	29	(50.0)
Belgian	4	(14.3)	5	(16.7)	9	(15.5)
FAO	2	(7.1)	5	(16.7)	7	(12.1)
World Bank	1	(3.6)	--	--	1	(1.7)
General	5	(17.9)	7	(23.3)	12	(20.7)
<b>Total Responses</b>	<b>28</b>	<b>(100.0)</b>	<b>30</b>	<b>(100.0)</b>	<b>58</b>	<b>(100.0)</b>
N =	14		14		28	
Number in group	32		16		48	
No response	18		2		20	

\*Names of donor agencies and countries were volunteered by respondents.

APPENDIX A: TABLES (Interviews)

TABLE 45

EMPLOYMENT OF TRAINING AND COMPARISON GROUP MEMBERS BY SECTOR,  
TYPE OF INSTITUTION AND TRAINING, MAY 1986

Category	Training Group		Comparison Group		All Respondents	
By sector and type of institution:						
Agricultural:	13	(61.9)	3	(50.0)	16	(59.3)
Dept. of Agric.	(6)	(28.6)	(2)	(33.3)	(8)	(29.6)
Parastatal	(3)	(14.3)	(1)	(16.7)	(4)	(14.8)
Others *	(4)	(19.0)	--		(4)	(14.8)
Non-agricultural:	8	(38.1)	3	(50.0)	11	(40.7)
Private	(4)	(19.0)	--		(4)	(14.8)
Central bank	(2)	(9.5)	(1)	(16.7)	(3)	(11.1)
Public	(1)	(4.8)	(1)	(16.7) <sup>±</sup>	(2)	(7.4)
Parastatal	(1)	(4.8)	(1)	(16.7)	(2)	(7.4)
Totals	21	(100.0)	6	(100.0)	27	(100.0)
By type of role:						
Manager	16	(76.2)	5	(83.3)	21	(77.8)
Policy advisor	2	(9.5)	1	(16.7)	3	(11.1)
Technician	3	(14.3)	--		3	(11.1)
Totals	21	(100.0)	6	(100.0)	27	(100.0)
N =	21		6		27	
Number in group	21		6		27	
No response	--		--		--	

APPENDIX A: TABLES (Interviews)

TABLE 46  
 VIEWS ON THE MAJOR CONSTRAINTS TO DEVELOPMENT IN ZAIRE  
 BY TRAINING

Types of constraints	Training Group	Comparison Group	Combined
Management of resources	8 (19.1)	15 (37.5)	23 (28.1)
Political leadership	9 (21.4)	5 (12.5)	14 (17.1)
People: mentality and organization	9 (21.4)	5 (12.5)	14 (17.1)
Transportation, communication	4 (9.5)	6 (15.0)	10 (12.2)
Technical	3 (7.1)	3 (7.5)	6 (7.3)
Financial	3 (7.1)	4 (10.0)	7 (8.5)
Other	6 (14.2)	2 (5.0)	8 (9.8)
<b>Total</b>	<b>42 (100.0)</b>	<b>40 (100.0)<sup>f</sup></b>	<b>82 (100.0)</b>
N =	19	16	35
Number in group	32	16	48
No response	13	--	13

APPENDIX A: TABLES (Interviews)

TABLE 47

EXPECTATIONS FOR FUTURE DEVELOPMENT IN ZAIRE BY TRAINING

Responses	Training Group	Comparison Group	Combined
Optimistic	11 (64.7)	5 (41.7)	16 (55.2)
Pessimistic	3 (17.6)	6 (50.0)	9 (31.0)
Ambivalent	3 (17.6)	1 (8.3)	4 (13.8)
Total	17 (100.0)	12 (100.0)	29 (100.0)
N =	17	12	29
Number in group	32	16	48
No response	5	4	9

APPENDIX B: INTERVIEW QUESTIONS

INTERVIEW QUESTIONS - TRAINING GROUP (Working in SEP)  
TG/SEP (FN:ZQUEST1, 5/20/86)  
F:QUEST3  
TG/SEP  
30 MAR 86 rev.2

PERSONAL

1. What has the training program meant to you? (3/27)
  - > What did you get out of the training program?
  - > What is different for you now than before training?
2. Preparation for training:
  - > How were you selected for training? Criteria?
  - > Was the purpose for training clear? >>What was it?
3. Were there problems during the training program?
  - > What were the greatest difficulties?
  - > What were the implications for your family? >>And now?  
(What effect did it have on your family?) (3/26)
  - > What could AID, USDA do to improve?
4. What was it like to return to Zaire after \_\_\_ mo/yrs in U.S.?
  - > What major differences did you notice?
    - >>Colleagues Supervisors Subord. (3/29)
  - > Were there adjustments you had to make?  
(adaptations)
5. (What was it like to write your thesis in Zaire?)
  - > Future policy for thesis research: in Zaire or in U.S.?

PROFESSIONAL

6. How do you feel about the training you got?
7. How well does your training "fit" your work in SEP?
  - > Which knowledge and skills have you used most?
8. Tell me about your work in SEP?
  - > Type of work
  - > Your role
  - > Most important part?
9. What kinds of special requests for work have you received?
  - > Special assignments in DOA? Elsewhere?
  - > Job offers?
  - > Special private jobs?

((Questions renumbered from here 3/29))

10. Are there some things you gained from training that you have shared/taught someone else? (3/26)
  - > What?
  - > With whom?
  - > When? Where?

ORGANIZATIONAL/INSTITUTIONAL

11. What kind of place is SEP?
  - > Like?
  - > Dislike?
12. What is SEP's mission or purpose?
  - > Most important role?
  - > Most important work?
  - > Any specific policy changes linked to SEP in past 5 yrs?

## APPENDIX B: INTERVIEW QUESTIONS

13. What outside organizations or dept. are important to SEP?
  - > Why?
  - > Users?
  - > Providers?
14. Which persons in SEP play key roles?
  - > DOA?
  - > With other organization?
15. What changes have you seen in SEP over the years?
  - > How has SEP been affected by the training program?
  - > How has SEP been affected by the TAT? +, -
16. What changes do you expect in SEP in the future?
17. Who is affected most by the work of SEP.
  - > Are farmers affected?
18. How does your work at SEP contribute to development?
  - > Meaning of development for Zaire?
  - > Optimistic or pessimistic?
19. What constraints do you feel are the greatest ones affecting development in Zaire?
  - > Generally? (3/27)
  - > Experienced personally? (3/27)
20. What do you like to do when you are not working?
  - > Outside interests or activities?
21. Any questions for me?

APPENDIX B: INTERVIEW QUESTIONS

INTERVIEW QUESTIONS - TRAINING GROUP (Working outside SEP)  
TG/EX-SEP (FN:ZQUEST1, 5/20/86)  
F:QUEST3  
30 MAR 86 rev.2

PERSONAL

1. What has the training program meant to you? (3/27)
  - > What did you get out of the training program?
  - > What is different for you now than before training?
2. Preparation for training:
  - > How were you selected for training? Criteria?
  - > Was the purpose for training clear? >>What was it?
3. Were there problems during the training program?
  - > What were the greatest difficulties?
  - > What were the implications for your family? >>And now?  
(What effect did it have on your family?) (3/26)
  - > What could AID, USDA do to improve?
4. What was it like to return to Zaire after \_\_\_ mo/yrs in U.S.?
  - > What major differences did you notice?  
>>Colleagues Supervisors Subord. (3/29)
  - > Were there adjustments you had to make?  
(adaptations)
5. (What was it like to write your thesis in Zaire?)
  - > Future policy for thesis research: in Zaire or in U.S.?

PROFESSIONAL

6. How do you feel about the training you got?
  7. How well did your training "fit" your work in SEP?
    - > What knowledge and skills did you use most?
  8. Tell me about your experience of working in SEP?
    - > Type of work
    - > Role
    - > Most important part? (3/30)
  9. What kinds of requests beyond daily work did you receive?
    - > Special assignments in DOA? Elsewhere?
    - > Job offers?
    - > Special private jobs?
- ((Questions renumbered from here 3/29))
10. Are there things you gained from training that you have shared/taught someone else?
    - > What?
    - > With whom?
    - > When? where?

ORGANIZATIONAL/INSTITUTIONAL

11. How did you find working in SEP? (3/27)
  - > Like?
  - > Dislike?
12. What is SEP's mission or purpose?
  - > Most important role?
  - > Most important work?
  - > Any specific policy changes linked to SEP in past 5 yrs?

## APPENDIX B: INTERVIEW QUESTIONS

13. Which outside organizations or dept. are important to SEP?
  - > Why?
  - > Users?
  - > Providers?
14. Which persons in SEP play key roles?
  - > Within DOA?
  - > With other organizations?
15. What changes have you seen in SEP over the years?
  - > How has SEP been affected by the training program?
  - > How has SEP been affected by the TAT?
16. Why did you decide to leave SEP?
  - > Key factors?
  - > Initiator
  - > Economic differences? What?
17. What is the nature of your work now?
  - > Role
  - > Duties/responsibilities
  - > Related to SEP? Agriculture? Development?
18. How well has your training fit the work you do?
  - > What knowledge/skill from training do you use most?
19. How does your work contribute to development?
  - > Meaning of development for Zaire?
  - > Optimistic or pessimistic about development in Zaire?(3/27)
20. What constraints do you feel are the greatest ones affecting development in Zaire? (3/27)
  - > Generally?
  - > Experienced personally?
21. What do you like to do when you are not working?
  - > Outside interests or activities?
22. Any questions for me?

## APPENDIX B: INTERVIEW QUESTIONS

INTERVIEW QUESTIONS - COMPARISON GROUP (Working in SEP)  
F:QUEST4 rev 1, CG/SEP, 3 APR 86  
(FN:ZQUEST2, 5/20/86)

### INTERVIEW QUESTIONS

Comparison Group: Current SEP Staff

1. Tell me about your work in SEP.
  - > Type of work?
  - > Your role?
  - > Most important part of work?
2. How well did the training you got at \_\_\_\_\_ prepare you to work at SEP?
  - > What knowledge or skills from your training do you use most?
3. How did you come to work in SEP?
4. Training program in the USA:
  - > What was the process by which selections were made?
  - > Were there some persons who prepared but were not selected?
5. What was it like to work in SEP while many staff were away in overseas training?
6. Describe what it was like when trainees returned to SEP?
  - > What major differences did you notice?
  - > Were there adjustments you had to make?
  - > Thesis writing period
7. What experience have you had with technical advisors in SEP?
  - > Describe.
  - > Which ones? (agency)
  - > How many months (estimate)?
8. What kind of place is SEP?
  - > Like?
  - > Dislike?
9. What changes have you seen in SEP over the years?
  - > How has SEP been affected by the training program?
  - > How has SEP been affected by the TAT? +, -
10. What is SEP's mission or purpose?
  - > Most important work? role?
  - > Who is affected most by the work of SEP? Are farmers?
  - > Any specific policy changes linked to SEP in past 5 yrs?
11. Which outside organizations or dept. are important to SEP?
  - > Why?
  - > Users?
  - > Providers?
12. Which persons in SEP play key roles?
  - > Within DOA?
  - > With other organizations?
13. What kinds of special requests for work have you received while working with SEP?
  - > Special assignments in DOA? Elsewhere?
  - > Job offers?
  - > Special private jobs?
14. What changes do you expect in SEP in the future?

## APPENDIX B: INTERVIEW QUESTIONS

15. How does your work contribute to development?
  - > Meaning of development for Zaire?
  - > Optimistic or pessimistic about development in Zaire?
16. What constraints do you feel are the greatest ones affecting development in Zaire?
  - > Generally?
  - > Experienced personally?
17. What do you like to do when you are not working?
  - > Outside interests or activities?
18. Any questions for me?

## APPENDIX B: INTERVIEW QUESTIONS

INTERVIEW QUESTIONS - COMPARISON GROUP (Working outside SEP)  
F:QUEST4, CG/EX-SEP, 3 APR 86

### INTERVIEW QUESTIONS Comparison Group: Former SEP Staff

1. Tell me about the work you did at SEP.
  - > Type of work?
  - > Your role?
  - > Most important part of work?
2. How well did the training you got at \_\_\_\_\_ prepare you to work at SEP?
  - > What knowledge or skills from your training do you use most?
3. How did you come to work in SEP?
4. Training program in the USA:
  - > What was the process by which selections were made?
  - > Were there some persons who prepared but were not selected?
5. What was it like to work in SEP while many staff were away in overseas training?
6. Describe what it was like when trainees returned to SEP?
  - > What major differences did you notice?
  - > Were there adjustments you had to make?
  - > Thesis writing period
7. What experience did you have with technical advisors in SEP?
  - > Describe.
  - > Which ones? (agency)
  - > How many months (estimate)?
8. What kind of place was SEP?
  - > Like?
  - > Dislike?
9. What changes have you seen in SEP over the years?
  - > How has SEP been affected by the training program?
  - > How has SEP been affected by the TAT?
10. What was SEP's mission or purpose?
  - > Most important work? Role?
  - > Who is affected most by the work of SEP? Are farmers?
  - > Any specific policy changes linked to SEP in past 5 yrs?
11. Which outside organizations or dept. were important to SEP?
  - > Why?
  - > Users?
  - > Providers?
12. Which persons in SEP played key roles?
  - > Within DOA?
  - > With other organizations?
13. What kinds of special requests for work did you receive while working with SEP?
  - > Special assignments in DOA? Elsewhere?
  - > Job offers?
  - > Special private jobs?
14. Why did you decide to leave SEP?
  - > Key factors?
  - > Initiator
  - > Economic differences? What?

## APPENDIX B: INTERVIEW QUESTIONS

15. What is the nature of your work now?
  - > Role
  - > Duties/responsibilities
  - > Related to SEP? Agriculture? Devalopment?
16. What training or experience has been most important to the work you do now?
  - > What knowledge or skills do you use most?
17. How does your work contribute to development?
  - > Meaning of development for Zaire?
  - > Optimistic or pessimistic about development in Zaire?
18. What constraints do you feel are the greatest ones affecting development in Zaire?
  - > Generally?
  - > Experienced personally?
19. What do you like to do when you are not working?
  - > Outside interests or activities?
20. Any questions for me?

APPENDIX B: INTERVIEW QUESTIONS

INTERVIEW QUESTIONS - FOLLOW-UP ON INCOMPLETE INTERVIEWS

(Former SEP Staff, 5/30/86)

(FN:ZTGEX, 5/30/86)

F:QUEST3 TG/EX-SEP 30 MAR 86 rev.2

Following are the remaining questions which we were not able to cover in my personal interview with you. I would like to have your response to these questions if at all possible. If you have time, please write out your responses. You may return these sealed in the accompanying envelope through Dr. David Shapiro or Cit. Kassenga Ali-Zibuka. They will be read only by me. Thank you for your continued assistance.

[Each person whose interview was not completed was sent a copy of questions which were not asked during the interview. See above for the questions asked.]

APPENDIX B: INTERVIEW QUESTIONS

INTERVIEW QUESTIONS - KEY PERSONS  
(F:KEYINF, 14 APR 86 (FN:QUEST3))

INTERVIEW QUESTIONS  
Key Informants: SEP (Insider)

1. Tell me about the work you do in SEP.
  - > Type of work?
  - > Your role?
  - > Most important part of work?
2. How did you come to work in SEP?
3. What was it like to work in SEP while many staff were away in overseas training?
4. Describe what it was like when trainees returned to SEP?
  - > What major differences did you notice?
  - > Were there adjustments you had to make?
  - > Thesis writing period
5. What experience has been your experience in working with technicians in SEP?
- 5a. Have you had in working with persons trained under Project 052?
  - > Describe.
  - > Which ones? > How long?
  - > What strengths and weaknesses have you observed?
  - > Compare your work with those trained in US and others trained elsewhere?
  - > How do USA-trained technicians relate to other staff?
    - > Colleagues > Supervisors > Subordinates
    - > TA (US and others)
    - > Share k/s?
  - > Compare training results of MSc and Ing Agron. Differences?
6. What experience have you had with other technical advisors in SEP?
  - > Describe.
  - > How many months (estimate)?

[Followed questions used with the Training and Comparison Groups as appropriate.]

APPENDIX B: INTERVIEW QUESTIONS

INTERVIEW QUESTIONS - SEP SUPERVISORS  
(FN:ZQUEST4, 5/20/86)

INTERVIEWS WITH SUPERVISORS IN SEP

TOPICS TO COVER:

- > Review master list of publications & studies
- > Identify Bureau outputs over past 10 years
- > Identify contributors
  - List
  - Estimate contribution
    - Quality
    - Quantity
- > Identify major projects
- > Identify probable users
  - (Get names)
- > Rank all staff on scale (1-10)
  - (Get qualities from interviews)

QUESTIONS:

1. What is the major work of Cit. \_\_\_\_\_?  
How long has he worked here?  
What are his major responsibilities?  
Have these changed? In what ways?
2. How did Cit. \_\_\_\_\_ come to work for your organization?
3. What were the major factors you considered in hiring Cit. \_\_\_\_?
4. What were your expectations?
5. Have your expectations of his performance changed? How?
6. How would you assess the performance of Cit. \_\_\_\_\_  
Compared to your expectations?  
Compared to others?
7. What are his strengths?  
What are his weaknesses?
8. What is your estimate of his future? Here? Elsewhere?
9. Are there other factors important to understand his  
contribution (work, organization) ? Unique characteristics?

## APPENDIX B: INTERVIEW QUESTIONS

### INTERVIEW QUESTIONS - USERS

16 APRIL 86 (FN:ZQUEST4, 5/20/86)

#### QUESTIONS:

- > How did you first become aware of SEP?
- > Who are the key people you have worked with in SEP?  
Phone? Write? Visit?
- > What is the relationship between \_\_\_\_\_ and SEP?
- > How has the relationship changed in past five years
- > How often do you use their services? Products?
- > What is the importance of SEP to your organization?  
Alternatives?
- > What might they do to improve their usefulness in future?

### INTERVIEW QUESTIONS - HIRERS

(FN:ZQUEST4, 5/20/86)

#### INTERVIEWS WITH AGENCIES WHICH HAVE HIRED PERSONS TRAINED UNDER PROJECT 660-0052

#### Order of Criteria for Selection:

1. Preference for those which have more than one ex-SEP employee.
2. Preference for those which have an ex-SEP employee from each of the two groups (Training Group, Comparison Group).
3. Include as broad a sample as possible within the constraints of time.
4. Priority to cases of particular interest to the agric. sector.

#### INTERVIEW QUESTIONS .

1. What is the major work of Cit. \_\_\_\_\_?  
How long has he worked here?  
What are his major responsibilities?  
Have these changed? In what ways?
2. How did Cit. \_\_\_\_\_ come to work for your organization?
3. What were the major factors you considered in hiring Cit. \_\_\_\_\_?
4. What expectations did you have for Cit. \_\_\_\_\_ performance?  
Have your expectations changed? How?
5. How would you assess the performance of Cit. \_\_\_\_\_  
Compared to your expectations?  
Compared to others?
6. What are his strengtns?  
What are his weaknesses?
8. What is your estimate of his future? Here? Elsewhere?
9. Are there other factors important to understand his role or contribution to the work or organization? Unique qualities?

CURRICULUM VITAE

NOMS: \_\_\_\_\_  
 (Surnom) (Autres noms)

B.P. - ADRESSE: \_\_\_\_\_  
 ZONE: \_\_\_\_\_  
 REGION: \_\_\_\_\_  
 PAYS: \_\_\_\_\_

DATE DE NAISSANCE: \_\_\_\_\_  
 (jour) (mois) (ann(e))

LIEU DE NAISSANCE:  
 Village: \_\_\_\_\_  
 Region: \_\_\_\_\_

NOM DE L'EPOUSE: \_\_\_\_\_  
 (Surnom) (Autres noms)

NOMS DES ENFANTS, DATE DE NAISSANCE	NOMS DES ENFANTS, DATE DE NAISSANCE

ETUDES FAITES

DEGRE	DOMAINE	ANNEE	ETABLISSEMENT	LIEU
DIPL/ CERT.				
BA/BSc				
MA/MSc				
PHD				

EXPERIENCES PROFESSIONNELLES

ANNEES	EMPLOYEUR	LIEU	FONCTION

FORMATIONS PROFESSIONNELLES (une semaine ou plus)

ANNEE	Nb. MOIS	SUJET	LIEU	RESPONSABLE

ACTIVITES PROFESSIONNELLES

MISSIONS:

ANNEE & MOIS	Nb. JOURS	DESCRIPTION	LIEU

(Liste des missions au verso)

PUBLICATIONS EDITEES OU NON EDITEES

DATE	SUJET	AUTEUR PRINCIPAL

AUTRES ACTIVITES (Liste et description au verso)

LANGUES :

1)re : \_\_\_\_\_ 2) : \_\_\_\_\_ 3) : \_\_\_\_\_ Autres (liste)

ETUDES FAITES DES PARENTS

NIVEAU	PERE	MERE	AUTRE RESPONSABLE
(Nombre d'ann(es))			
Primaire :	_____	_____	_____
Secondaire :	_____	_____	_____
Universitaire:	_____	_____	_____
Graduat :	_____	_____	_____

APPENDIX D: VARIABLES

PRETRAINING (PROXY) VARIABLES	CODES	FILES	SOURCES	STAT
				(pct TG
BIOGRAPHICAL DATA:		ZBIO.dbf	USDA, CV, SEP	
EMPLOYMENT GROUP	SEP			
NAME	NAME			
BIRTH DATE	BIRTHDATE		USDA, CV	100,8
BIRTH PLACE (Village)	BIRTHPLAC		USDA, SEP, CV	
REGION OF ORIGIN	REGIONORI		SEP, CV	100,8
SEX	SEX		USDA	100,1
PARENTAL EDUCATION:				
FATHER	DADED		SUPPLE/Q	84,8
MOTHER	MOMED		"	84,8
PARENTAL OCCUPATION				
FATHER	DAD OCC		SUPPLE/Q	81,6
MOTHER	MOM OCC		"	84,6
EDUCATION (yrs):				
DEGREE	EDYRS		USDA, SEP, CV	100,1
SUBJECT	EDDEG			100,1
PERFORMANCE	EDSUBJ			100,1
YEAR OF COMPLETION	EDMARKS		", U.KIN	88,3
	EDFINYR		, CV	100,1
FAMILY STATUS:				
MARITAL STATUS BEGIN TRAIN	MARRY		USDA, INTV, CV	100,8
CHILDREN (No.)	CHILD		USDA, INTV, CV	100,8
FAMILY IN USA	FAMUSA		USDA, INTV, CV	100,-

APPENDIX D: VARIABLES

INTERVENING VARIABLES	CODES	FILES	SOURCES	STAT
SERVICE IN SEP:		ZTIME.dbf	INTV,SEP,CV100,1	
BEGIN SEP	BEGSEP			
DIVISION WITHIN SEP	DIVBF			
BEGIN TRAINING PROG	TOTRAIN			
RETURN TO SEP	RETSEP			
DEPART FROM SEP	DEPSEP			
DIVISION WITHIN SEP	DIVAF			
TIME AT SEP/DOA (Bef.train)	SERVBF			
TIME AT SEP/DOA (Aft.train)	SERVAF			
TOTAL MONTHS SERVICE - SEP	SERVTOT			
EXPERIENCE WITH TECH ADVISORS:		ZTA.dbf	SUPPLE/Q,CV 68,	
MONTHS	TA75MO - TA85MO			
INTENSITY	TA75IN - TA85MO			68,6
INTERNATIONAL TRAINING VARIABLES:	CODES	FILES	SOURCES	STAT
INTERNATIONAL TRAINING:		ZINTL.dbf		TG - (%)
AGE (At begin. of training)	AGE		USDA,CV	97
ENGLISH TRAIN. IN U.S.:				
MONTHS	ELTMO			
LOCATION	ELTLOC			
INTL TRAIN START DATE	ITSTART		USDA,CV	
IT END DATE	ITEND			
LENGTH (time in USA)	ITMO			100
LOCATION (majority of time)	ITLOC			100
TYPE OF PROGRAM	ITTYPE			100
FIELD OF STUDY	ITMAJOR			100
PERFORMANCE	ITGPA		USDA,ISPC	84
THESIS RESEARCH:				
LOCATION	THESLOC		USDA,INTV	100
TIME REQUIRED (U.S.)	THESMO			
TIME REQUIRED (ZAIRE)	THESMOZA			

APPENDIX D: VARIABLES

POST-TRAINING VARIABLES	CODES	FILES	SOURCES	STAT
SERVICE IN SEP:				(Pct TG
IDENTIFICATION NUMBER	IDNUM	ZTIME.dbf	INTV, SEP, CV100, 1	
BEGIN SEP	BEGSEP			
BEGIN TRAINING PROG	TOTRAIN			
RETURN TO SEP	RETSEP			
DEPART FROM SEP	DEPSEP			
DIVISION WITHIN SEP	DIVBF			
DIVISION WITHIN SEP	DIVAF			
TIME AT SEP/DOA (Bef.train)	SERVBF			
TIME AT SEP/DOA (Aft.train)	SERVAF			
TOTAL MONTHS SERVICE - SEP	SERVTOT			
ADVANCEMENT:				
BEGINNING POSITION IN SEP	RANKBEG	ZRANK.dbf	INTV, CV, SEP	
POSITION IN SEP BEFORE TR.	RANKBF		USDA, INTV, CV	
POSITION IN SEP AFTER TR.	RANKAF		INTV, SEP, CV	
OTHER POSITION AFTER TR.	RANKHI		INTV, SEP, CV	
OUTPUTS:				
REPORTS BY BUREAU	RPTBUR	ZRPT.dbf	CV, INTV	
AUTHORSHIP/DEGREE OF CONTR.	RPTAUTH			
REPORT TYPE	RPTTYPE			
REPORT SUBJECT	RPTSUBJ			
YEAR OF REPORT	RPTYR			
ACTIVITIES: MISSIONS				
YEAR OF MISSION	MSYEAR	ZMISS.dbf	CV, INTV	
NO. OF DAYS ON MISSION	MSDAYS			
TYPE OF MISSION	MSTYPE			
PURPOSE OF MISSION	MSPURPOSE			
LOCATION OF MISSION (Reg.)	MSLOCATE			
(SUBREGION)	MSSUBREG			
ECONOMIC STATUS:				
INCOME:				
SALARY BEFORE TRAIN. (real)	SALSEPRL	ZECON.dbf	INTV	
NOMINAL SALARY BEFORE TRAIN	SALSEPNOM		INTV, SUPPL/Q, SEP	
SALARY IN NEW JOB (real)	SALNEWRL			
NOMINAL SALARY IN NEW JOB	SALNEWNOM			
CURRENT (5/86) SALARY	SALCURR			
SPOUSE'S INCOME	INC SPOUSE			
OTHER INCOME	INC OTHER			
BENEFITS: FUEL	BENEFUEL			
OTHER BENEFITS:				
MEDICAL				
TRANSPORTATION				
HOUSING				
CREDIT				
VACATION				

APPENDIX D: VARIABLES

EXPENSES:

RENT

UTILITIES

FOOD

TUITION

EXPRENT

EXPUTIL

EXPFOOD

EXPTUIT

NUMBER IN SCHOOL

NUMBER IN HOUSEHOLD

NUMSCHOOL

NUMHOUSE

APPENDIX D: VARIABLES

KEY TO ABBREVIATIONS

-----

- ALI = American Language Institute, Georgetown University
- CV = "Curriculum vitae" form which was prepared and administered to all interviewees in order to get more complete and systematic data on family status, education, professional experience, in-service training, missions, studies or publications, languages, parental education and occupation.
- EI = Economics Institute, University of Colorado, Boulder, CO
- INTV = INTERVIEWS which included structured questions about person history history and socioeconomic data as well as open-ended questions about the training and post-training experiences.
- ISPC = International Statistical Program Center, the Bureau of the Census, Department of Commerce, U.S. Government
- SEP = Records from the Service d'Etude et Planification, DOA, Zai
- SUPPLE/Q = Supplemental questions sent back to Zaire in June 1986 to complete missing data including data on socio-economic status, parental occupation, experience with technical advisors, and answers to a few missing interview questions.
- U KIN = University of Kinshasa
- USDA = Participant training files at the U.S. Department of Agriculture which include data sent from Zaire with the original training request (i.e., description of training, biographical data, previous academic records, letters of recommendation, English language level).

Filetypes:

- dbf = Database files (dBase III)
- WS/ = Word processed files (Wordstar)/
- O = Original interview data
- S = Sorted responses
- R = Reduced responses
- C = Coded responses
- = Not applicable

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