

AGENCY FOR INTERNATIONAL DEVELOPMENT WASHINGTON, D. C. 20523 BIBLIOGRAPHIC INPUT SHEET	FOR AID USE ONLY <i>Batch #26</i>
---	---

1. SUBJECT CLASSIFICATION	A. PRIMARY Serials	Y-AE50-0000-0000
	B. SECONDARY Agriculture--Rural sociology	

2. TITLE AND SUBTITLE
Diffusion of innovations in rural societies, annual progress report, 1966/1967

3. AUTHOR(S)
(101) Mich. State Univ. Dept. of Communication

4. DOCUMENT DATE 1967	5. NUMBER OF PAGES 27p.	6. ARC NUMBER ARC 301.24.M624
--------------------------	----------------------------	----------------------------------

7. REFERENCE ORGANIZATION NAME AND ADDRESS
Mich. State

8. SUPPLEMENTARY NOTES (*Sponsoring Organization, Publishers, Availability*)
(Research summary)

9. ABSTRACT

10. CONTROL NUMBER PN-RAB-452	11. PRICE OF DOCUMENT
12. DESCRIPTORS Brazil India Nigeria	13. PROJECT NUMBER
	14. CONTRACT NUMBER CSD-735 Res,
	15. TYPE OF DOCUMENT

ESD-735 Rev.
301.27.11624

cod 735

copy 1/18/2

ANNUAL PROGRESS REPORT FOR RESEARCH
PROJECT ON DIFFUSION OF INNOVATIONS IN
RURAL SOCIETIES

Submitted by the Department of Communication,
Michigan State University
East Lansing, Michigan

To the United States Agency for
International Development
Washington, D.C.

July 1, 1967

DIFFUSION OF INNOVATIONS IN RURAL SOCIETIES

PROGRESS REPORT

SUMMARY

The past twelve months have seen the three-country MSU-AID Diffusion Project overseas staff move forward vigorously in field data-gathering, data-analysis, and reporting, and institutional development.

The staff in Brazil under the leadership of Bill Herzog were joined by Dave Stanfield in October, 1966, and in May 1967 by Tom Carroll. Both have contributed to the Brazilian operations as they move into Phase III. Phase I and II data-analysis is also a major activity. Herzog will direct a new literacy research sub-project of the Diffusion Project with Cruzada ABC, an adult literacy program, in September, 1967. This project will examine literacy programs in Brazil's Northeast. The research is sponsored primarily by AID/RIO through Cruzada ABC.

Frederick Fliegel is Co-Leader of the India project, along with Prodipto Roy of NICD. Their staff includes Joseph Kivlin, James Bebermeyer, and Lalit Sen at Hyderabad, India. Interviewing teams have been gathering data from about 1,800 villagers in three Indian states. Phase II data-gathering is completed. Four Diffusion Research Fellows (DRF's) have been selected from India and will travel to MSU in September, 1967 to join counterparts from Brazil and Nigeria for graduate study in the Department of Communication. In India, as well as in Brazil and Nigeria, the U.S. faculty are aided by a colleague staff of host country research associates and research assistants.

Nigeria Project Leader Jerry Hursh welcomed the addition of Allan Hershfield in March, 1967. Hershfield would have assumed the post of Project Leader, Nigeria upon Hursh's return to MSU following the PLWC3 in September, 1967, but due to the Project's evacuation from the University of Nigeria's Economic Development Institute,

Enugu, Biafra (Eastern Nigeria), Hershfield may become Project Leader, Brazil, essentially replacing Bill Herzog in that post. Phase III treatments in Biafra included radio farm forums, and agricultural extension village leader techniques. If the political situation in Biafra permits, follow-up data to permit evaluation of the Phase III treatments will be gathered during the following year.

MSU Headquarters operation moved to new offices in South Kedzie Hall, where the data received from the three countries is undergoing intensive analysis. The Phase I report from Brazil will be presented to AID/!! in July in draft form; it will be followed by a series of Phase I and II reports which will be authored for each country in the next six months. As in past years, representatives from all country project staff as well as MSU, will participate in the two week Project Leaders' Working Conference (PLWC3), which this year is mainly devoted to authoring a report on survey research methods in developing countries. The PLWC3 will be held in Ontario, Canada.

Everett Rogers, Director of the Diffusion Project, continues to coordinate research efforts of the three country staffs. He spent three months in Winter, 1967 with the Project staffs in Brazil, Nigeria, and India.

Arthur Niehoff, formerly Project Leader in Nigeria, served as Visiting Professor of Communication and Anthropology at MSU during Spring Term, 1967. He was engaged in analysis of the role of ex-military veterans as village innovators, and in planning the three-country comparative Phase I report (with Everett Rogers).

Gordon Whiting, Co-Project Leader, Brazil, directed Brazil data-analysis at headquarters. He is the chief author of the Brazil Phase I report and also completed an analysis of modernization of Phase I village leaders.

The Diffusion Documents Center (DDC) is designed primarily to serve as a repository of diffusion materials. Approximately 30 additional diffusion publications

are received per month. Since its establishment in December, 1964, a total of 1,230 empirical and non-empirical publications have been filed with our Center. They are content analyzed, and the results are utilized to fill information requests which come to the Center. The 1967 annual DDC bibliography was published in 1,100 copies. All previous copies were exhausted, having been supplied in answer to requests.

INTRODUCTION

This report outlines Diffusion Project accomplishments achieved in the twelve months ending June 30, 1967. While the progress reported herein is sometimes attributed to a seemingly impersonal entity called the "Diffusion Project," the success of this research venture is more properly due to some 30 devoted colleagues and field workers in Brazil, India, Nigeria, and the United States.

The main goal of the Diffusion Project is to determine effective means of communication and change with millions of impoverished, illiterate, and frequently elusive peasants in less developed nations around the world. Project activities also include training of both U.S. and non-U.S. social science researchers in study design, data-gathering, and analysis, so that an institutional structure for communication research and action programs will continue in the participating countries after the Diffusion Project is officially completed.

OBJECTIVES

Objectives of the Diffusion Project as outlined in the Revised Operational Plan dated July 1, 1965 are:

I. Knowledge Useful to Change Agents

1. To identify village innovators and opinion leaders, and determine their distinctive social and economic characteristics, communication behavior, attitudes and values, so that change agents can more effectively introduce innovations through them.
2. To identify the role and influence of various communication channels and techniques such as mass media, opinion leaders, interpersonal communication, and demonstrations in the innovation process.

3. To introduce various communication and economic incentives (such as credit) through various communication channels (such as mass media discussion groups), and to determine the response to these incentives.
4. To identify the influence of presently-existing price incentives, credit, land tenure, marketing practices, the shift from subsistence to commercial production, and other economic factors on the adoption of new ideas.

II. Methods Useful to Further Research

5. To develop improved research methods for study of the diffusion and adoption of innovations in traditional societies, so that these methods of investigation may be utilized in future studies.

III. Strengthening Personnel and Host-Country Research Institutions

6. To train both U.S. and non-U.S. social science researchers in methods of study design, data-gathering, and analysis for future investigation of the diffusion and adoption of innovations in developing societies.
7. To build an institutional structure for diffusion-adoption research and action programs in the participating countries so that self-stimulated research and action programs will continue after the present Project is completed.

Discussions are presently underway with AID/W about the possibility of expanding the Project to investigate diffusion programs in Africa (Vanguard), Guatemala, and the Philippines. AID/RIO has requested that the scope of the Diffusion Project in Brazil be expanded to include investigation of an adult literacy program, Cruzada ABC, centered at Recife. This sub-project will begin in September, 1967

and continue for two years.

PROJECT HEADQUARTERS AT MSU

Some of the main Project functions performed at headquarters are (1) coordination of the separate country Project activities, and liaison with AID/W, (2) providing suggestions on research methodology and content for possible use by field staff (largely in the form of memos and working papers, which are listed in an attachment to the present report), (3) computer data-analysis including the simulation of innovation diffusion, and (4) operation of the Diffusion Documents Center (DDC).

The personnel at MSU headquarters, listed in the attached Project Personnel Directory, consist of the Project Director (half-time), the Administrative Officer (half-time), Secretary, DDC Librarian, and several research assistants. One DRF from Nigeria and one from Brazil are presently enrolled in graduate training programs at MSU. In September, 1967, four DRF's will arrive from India to begin their research work and graduate training. In late April, 1967, Tom Carroll joined the Brazil contingent in Belo Horizonte to gather field data in two communities, which will be analyzed after his return to MSU in September, 1967, as part of our work on computer simulation of innovation diffusion (SINDI).

Coordination and Communication

One of the main functions of Project headquarters is to act as the communication hub in a wheel of Project field activities, and to reflect the Project's needs and its results to AID/W. The inner-communication problems of the Project staff can be appreciated when one considers the great distances involved, the number of Project staff and their relative physical isolation from one another, and the volume of interchange that must occur.

Some idea of the volume of within-Project communication activities may be gained from the following.

1. Project postage costs at Headquarters alone in the past year totaled about \$900, plus an additional cost of \$550 for telegrams.

2. Over 110 letters were sent to the Brazil staff and over 100 were received in 1966-67 (with an average length of about three pages), over 150 letters were exchanged with the Nigeria staff, and 150 with the India staff.

This heavy volume of correspondence is supplemented by extensive interpersonal communication. The Project Director and Administrative Officer, along with all Project leaders, attended the Second PLWC in Hyderabad, India in September, 1966, for a two week discussion of Project activities; the Project Director also spent one month in each of the three countries in January-March, 1967.

Data-Analysis

All of the data-analysis for the Brazil and Nigeria Phases I and II was completed or is undergoing analysis at MSU. Most of the India Phase I and II data-analysis is being completed on a Government of India computer in New Delhi, due to lower cost and more rapid turn-around time. Copies of all IBM cards and computer print-out are maintained both at NICD and MSU. Certain indices for the India Phase I data-analysis were constructed at MSU.

Diffusion Documents Center

One of the important supporting activities underway at MSU Headquarters is the Diffusion Documents Center, initiated on July 1, 1964, and supported jointly by the Diffusion Project and by the Department of Communication at Michigan State University. This facility serves as a repository for all of the publications dealing with the diffusion of innovations that can be secured. Many fugitive documents are difficult to obtain, are currently out-of-print, or are not available in English.

This is especially true of diffusion investigations completed in developing countries. The Project field staff play an important role in obtaining copies of these publications, especially in India.

An indication of the rapid growth in the number of diffusion publications is provided by the 405 entries in a 1962 bibliography on this subject, 600 in a 1964 bibliography, 870 in a 1965 bibliography, 1,000 in the 1966 bibliography, and 1,230 in the 1967 bibliography. The first work on diffusion was reported in 1928, and so more diffusion publications have appeared in a recent four-year period (1962-66) than in the previous 34 years of research on this subject.

Not only are a great many diffusion publications appearing in very recent years, but there is much evidence that diffusion researchers are only partially aware of each other's work. Hopefully, the annual publication of our diffusion bibliography will improve the diffusion of diffusion research results.

In addition to the publication of bibliographies, the MSU Diffusion Documents Center staff has prepared a detailed content analysis of all empirical research reports in the DDC. These materials are classified and punched on IBM cards, and have been analyzed along such dimensions as the type of innovations studied, the locale and method of data-gathering, and the nature of the findings. Information retrieval efforts are thus facilitated. For example, consider the requestor who asks the DDC for all publications dealing with the diffusion of weed sprays in Latin American countries. The requestor can easily be supplied with an IBM print-out listing all studies dealing with a particular innovation in a certain locale, and, if he wishes, with a print-out of the major findings from these studies.

Hopefully, the DDC is useful in suggesting methodologies and hypotheses for the present Project at Phases II and III, and in providing understanding of diffusion findings for action agencies and for advanced training of diffusion researchers.

As past studies are analyzed and future research results are added, a body of generalizations about the diffusion of innovations will be accumulated in a meaningful and consistent manner.

Obviously, the utility of the Diffusion Documents Center depends upon the number of clients who use its services. In the past year, 210 on-campus (mostly faculty and graduate students in about fifteen departments) and several off-campus individuals utilized materials from the DDC in person. An additional 326 individuals sent written requests for information or materials from the DDC. Over 1,100 copies of the 1966 diffusion bibliography were distributed upon demand in 1966-67. The rate of use of the DDC, however measured, has increased steadily during the past year.

BRAZIL OPERATIONS

Phase II Data-Collection

The second year of Brazil operations began with the Phase II data-collection. During July and early August, 1966, interviewers gathered a total of 1,469 interviews in 20 rural communities of Minas Gerais. 1,307 of these interviews were with male heads of households and 162 with female respondents. Phase II data-collection focused on factors related to the adoption of agricultural and home innovations. It also provided base-line data for the Phase III experimental portion of the Project.

Following data collection, the completed schedules were coded for IBM machine analysis, the information was transferred to IBM data sheets, and air-mailed to Michigan State University for computer analysis. The data-coding, checking, transfer, and mailing was completed in January, 1967.

Phase III Pre-Treatments

Simultaneous to the data-coding operation was the task of initiating the "pre-treatments" of animation and literacy training in 12 of the Phase II study

communities. While some preparatory work had been done prior to the Phase II data-collection, these activities became a major focus of attention from August, 1966, onward.

Animation

Animation training is a technique to help community leaders identify their own problems and develop their own solutions to those problems. In Senegal, where this method of change has been widely used, community leaders are selected for training in short course institutes which make use of case studies, hypothetical problem-solving, and observation of demonstration communities. The first animation training session for Diffusion Project study communities was held in September, 1966. Leaders from four communities participated in five days of training and observation. A second training session, held in February, 1967, brought together leaders from three study communities. As a result of the animation program, community projects have already been developed in organization of a village cooperative, a school parent association, and community cooperation in ant extermination.

Originally, it had been hoped that a Brazilian change agency would carry out the action aspects of the animation training in the six communities. When this did not occur, Project personnel undertook planning and direction of the animation training sessions, along with assistance from the change agency, as well as maintaining liaison with the communities.

Literacy Training

An informal survey of known adult literacy programs in Minas Gerais indicated that the program using most progressive, accelerated teaching techniques was a Radiophonic School, an agency of the Secretary of Education, Minas Gerais. An agreement was made between the Project and the Radiophonic School (RS) whereby the latter would conduct literacy training programs in another six Project study communities, using tape recorders, instead of radio transmission. The classes were originally

programmed to start in October, 1966. In fact, they started in May, 1967. A number of factors contributed to an aggravating series of problems and delays with the literacy program:

- (1) The Secretary of Education (Minas Gerais) was in financial difficulty. Teachers' salaries have not been paid for as long as 10 months in some parts of the state. Funds have not been released to the RS to carry out its program in the six villages.
- (2) The RS was obliged by the Secretary of Education to go on vacation from mid-December, 1966 to mid-February, 1967. Almost no work was done by the RS on any aspect of the literacy program during this time.
- (3) There is an obvious lack of initiative and administrative capability on the part of RS personnel. Diffusion Project personnel were constantly asked to help solve trivial, internal problems.
- (4) Arrangements were made with USIS, Belo Horizonte, to record and make taped copies of lesson programs. There were several delays in maintaining the recording and tape-copying schedule.

In March, 1967, a six-day training session for literacy training class monitors was held. These persons were selected from the communities, and are responsible for record-keeping, supervision of the tape recorders, and assisting students in carrying out instructions contained in the tapes.

Diffusion Project personnel assisted in all phases of the literacy program by arranging transportation of RS personnel to the communities, arranging with USIS for recording and dubbing program tapes, securing funding for the monitor training session, and for the purchase of tape recorders.

A small data collection was conducted in early July, 1967, to gather prelimi-

nary measures on the effects of literacy and animation "pre-treatments."* An interview schedule for this study was designed and pre-tested in June, 1967.

Phase III Treatments

A major activity of 1967 has been preparation for the Phase III communication treatments, scheduled to follow animation and literacy in September, 1967. These treatments are (1) radio farm forums, and (2) mimeographed community newspapers.

The radio farm forums will be patterned after the successful experiences in Canada, India, and Australia. In each community a group of 15-20 villagers will meet once a week to listen to a radio program about some aspect of agriculture, and then to discuss its application to their local situation. Questions of clarification from the local groups will be forwarded to a program production center and answered in subsequent programs.

Mimeographed community newspapers will be patterned after de Lawrence's work in West Africa. One person in each community will act as editor and produce a simple weekly community newspaper. In addition to local news, the paper will contain agricultural information equivalent to that carried in the weekly radio forum programs. University students from the School of Journalism at the Federal University of Minas Gerais in Belo Horizonte will assist in the initial stages of launching the newspapers. The Diffusion Project has secured PL-480 funds from AID/RIO to purchase typewriters and simple mimeo machines for each community.

The Association for Credit and Rural Assistance (ACAR), a state extension agency, will supervise production of the radio programs and the agricultural sections for the community newspaper. Eight agricultural innovations have been selected for emphasis; they represent varying degrees of cost and complexity. Information about

*These data will be analyzed by William Herzog, Brazil Project Co-Leader, for his Ph.D. dissertation at MSU.

these innovations will constitute the basic content of the radio programs and the agricultural information in the newspapers. An ACAR communication specialist is currently developing the training materials.

Data-Analysis and Publication

The draft manuscript of the Phase I report is completed and is being prepared for publication by September 1, 1967. Both AID/W and the cooperating institutions in Brazil (like ACAR) are now reviewing the manuscript prior to its final publication.

It is planned that the Phase II report will be available in draft manuscript by December, 1967, with publication in early 1968. Numerous articles and supplementary reports are also being planned from the Phase I and II data.

In view of the fact the Phase I and Phase II research reports will be published shortly, no attempt will be made in this progress report to discuss research findings.

Since March, 1967, Project staff members have devoted a substantial portion of time and energy to reporting results of Phase I and II research activities. In addition to preparing sections of the Phase I and II reports, two papers were prepared for a conference of agricultural extension specialists to be held in Caracas, Venezuela, in September, 1967, and another paper for presentation at the Association for Education in Journalism meetings in Boulder, Colorado, August, 1967. Work is also underway on three chapters for a forthcoming book on research methodology in developing nations.

Institutional Relations

Development of Phase III communication treatments acted to strengthen Project ties with ACAR. Project personnel served in June as consultants in planning a study of effectiveness of a new ACAR five-year plan to be launched in 1968.

Closer contact with the Federal University of Minas Gerais was achieved through two courses taught by Project staff in the graduate program in political

science, one course on research methodology and the other on communication and development.

In April of 1967 the Diffusion Project was invited by the Ohio State University contract group at the Agricultural College at Piracicaba to co-sponsor a four-day diffusion seminar. The purpose of the seminar is to bring together diffusion researchers from throughout Brazil to share findings, and to assess the present state and future possibilities of diffusion research. The seminar was originally scheduled for June, but is now postponed until August, 1967.

Personnel Movements

David Stanfield arrived in Brazil in October, 1966, and in December, he became Associate Country Leader. Gordon Whiting returned to the MSU campus to supervise Brazil data-coding and analyses, and William Herzog assumed direction of Brazil field operations. Tom Carroll, Instructor in the MSU Communication Department, arrived in Brazil in mid-May, 1967, to spend approximately five months in Brazil collecting data in two communities for the development of a computer-simulation model of the diffusion process.

The return of Gordon Whiting to the U.S. to direct on-campus data-processing marked the beginning of a gradual phase-out of Brazil field operations. In March, José Armando, Brazilian Research Associate, accepted a fellowship for advanced social science training at FLACSO, Santiago, Chile.* William Herzog is scheduled to return to the U.S. in mid-July, 1967, at which time David Stanfield will assume responsibility as Acting Project Leader. In August, 1967, Gustavo Quesada, Assistant Country Leader, will leave for Michigan State University to begin work on a doctoral degree in Communication.

Future Activities

At this writing, the following tasks are anticipated for the third year of

*Where he hopes to complete his M.A. thesis from Brazilian Phase II data.

Project operations in Brazil:

1. A small data-collection (sub-samples from about eight communities) in July, 1967, to measure preliminary results of literacy and animation "pre-treatments" (affectionately referred to as "Phase II.5" data collection).
2. Collection of data in two communities for the Carroll computer diffusion simulation.
3. Coding of Phase II.5 and Carroll data.
4. Phase III communication treatments:
 - (a) Contacts with communities selected to participate in radio farm forum and community newspapers.
 - (b) Designation of discussion group leaders and organization of groups in radio communities.
 - (c) Designation and training of newspaper editors in newspaper communities.
 - (d) Implementation of radio farm forum and community newspaper treatment.
5. Final collection of Phase III data in 20 study communities to measure effects of the different communication strategies on adoption of practice and attitudes toward modernization.

Conclusions

While the first year of Brazil Operations was devoted largely to planning and conducting Phase I and II data-collections, the second year saw a shift to analysis of results and an emphasis on relations with cooperating institutions for the carrying out of the experimental phase of the Project. Certain observations are pertinent to this experience:

1. It is difficult to analyze data and write reports when separated by thousands of miles from the computer. Delays in international mails, contingencies of data-analysis (certain analyses cannot be run until results from preliminary analyses are inspected), difficulty of finding writing time when surrounded by on-

going research activities, all suggest an axiom: efficiency of research report writing increases in inverse relation to distance from the computer.

2. Field experiments in less developed countries take more time and energy than one would ordinarily estimate. Change agencies are not accustomed to cooperating with research projects and do not understand the importance of experimental controls and the intricacies of an interlocking research time schedule. It is naive to expect to be able to assign the action portion of a field experiment to a change agency, and then divorce oneself from the action and concentrate only on measuring results. The maxim here is that project staffs and budgets should be planned to accommodate the possible need for direct involvement in the action components of field experiments.

V. 1
147

3. Change agencies are particularly subject to local and national politics. The result may be budget cuts and inability to carry out activities which they had agreed to perform.

INDIA OPERATIONS

Capsule Summary of Progress

The major activity during 1966-67 was the conduct of Phase I and Phase II data-gathering. Both operations worked out about as planned. Since May 1, 1967, Project staff have been completely involved in data-processing, analysis, and writing the first draft of the Phase I report. Another high-light of the year was the second Project Leaders' Working Conference, held at Hyderabad, on September 4-14, 1966.

Staff

Although recruitment had taken place earlier, the majority of project staff joined the project during the current year, on or about August 1. New staff were as follows:

I. Project Research Associates and Deputy Directors, NICD.

1. S.K. Reddy (Ph.D. in Extension Education, IARI)
2. S.S. Thorat (Ph.D. in Sociology, Michigan State University)
3. A.K. Danda (Ph.D. in Anthropology, Cornell University)*

II. Project Research Assistants

1. D.K. Bhowmick
2. S. Bhowmick
3. P.K. Chatterjee
4. B.R. Patil
5. K.S.S. Raju
6. J.M. Rao
7. J.V.R. Rao
8. S. Rudra
9. G. Subbarathnam
10. S.K. Shelar
11. P.M. Shingi
12. V.K. Surkar

The above staff are in addition to the professional, administrative, and supporting staff who joined the Diffusion Project during 1965-66, and were included in a previous Annual Progress Report.

Institutional Support

The National Institute of Community Development (NICD) agreed to provide to the Diffusion Project a variety of facilities and services. The following were in fact provided:

1. Office space has been provided for all Project staff members when their work

*Whose salary is an NICD financial contribution to the Diffusion Project in India.

required them to be in Hyderabad. In addition, hostel facilities have been made available at nominal cost and on a temporary basis when field teams returned to NICD headquarters, until such time as they could locate satisfactory quarters of a more permanent nature.

2. A subtle but extremely important form of institutional support has been the official letters and personal calls made by NICD staff to provide the research teams access to various government offices. Without this official and active sponsorship, it would have been very difficult to obtain certain necessary data.
3. Four NICD stenographers and typists have been made available to the Project Staff on a continuing basis.
4. Facilities for the reproduction of interview schedules and manuscripts, and library facilities have been made available to Project staff.
5. An NICD Jeep was loaned to the Diffusion Project for the duration of Phase I and Phase II field work. The Project paid only for the maintenance and the cost of operating the vehicle.

Institution-Building Activities

Selection of four Diffusion Research Fellows (DRF's) from among the Project Research Assistants represents an important contribution to institution-building. The four individuals nominated as DRF's are: D.K. Bhowmick, K.S.S. Raju, J.M. Rao, and S. Rudra. The four DRF's will begin graduate study in the Department of Communication at MSU about September 1, 1967. There, they will also be engaged on a part-time basis in analysis of the India data that they helped gather.

Project staff have participated in each of the NICD orientation and training courses which are held throughout the year. Project staff have lectured, lead discussions, and participated as students. In addition, Project staff have served on a variety of NICD committees, and have contributed to the NICD journal (Community

Development and the Behavioral Sciences) as members of the managing board, as consulting editors, and as contributors of papers.

Finally, with most of the field work for Phases I and II now completed, the two Project vehicles are not fully utilized by the Project staff and have therefore been partially merged with the NICD fleet on a mileage-charge basis. This is in anticipation of the likely eventual transfer of these vehicles, or two comparable vehicles, to NICD at the termination of the Project.

Progress of Field Data-Gathering

Phase I data were collected in 108 villages between September 15, and December 15, 1966. In addition to information about each village from secondary sources, and interviews with eight leaders in each village, the following individuals were also interviewed: 66 Village Level Workers (VLW's) responsible for development work in the sample villages; and the 36 Agricultural Extension Officers, 27 Block Development Officers, 40 Midwives, and 41 Block Doctors, responsible for various types of development work in the sample villages.

Phase II data were gathered between March 1 and April 30, 1967, as follows: (1) Andhra Pradesh, 3 of the Phase I villages were selected and 211 respondents interviewed; (2) Maharashtra, 2 of the Phase I villages were selected and 246 respondents interviewed; (3) West Bengal, 3 of the Phase I villages were selected, and 224 respondents interviewed. The total number of Phase II respondents is therefore 681.

Progress of Data-Analysis

Phase I data were coded for machine processing between Phase I and II fieldwork. Phase II data are currently being coded for IBM card punching. A satisfactory and economical arrangement has been made for machine data-processing with the Computer Center of the Programme Evaluation Organization, Planning Commission, Government of India, New Delhi. Phase I indexing has been done, partly by machine

and partly by hand, and Phase I analysis is expected to be essentially completed by mid-July, 1967. Phase II data go to the Computer Center for punching and verification on June 24, 1967.

McBee (Keypunch) cards have also been used for some preliminary analyses and to assist in scale and index construction for Phase I data. Scalogram analysis of Phase I indexes was done with scalogram blocks, with satisfactory results. A generally similar sequence of activities is anticipated for Phase II data.

Future Project Activities

During 1967-68, Project staff will primarily be concerned with analysis of Phase I and II data and with reporting results. Phase III is scheduled for completion during Winter, 1968, in the form of a second measurement of the effects of experimental treatments in selected villages in the Lucknow, U.P., area. Phase III therefore capitalizes on the very considerable inputs of time, effort, and funds of a UNESCO-sponsored project conducted by MICD in collaboration with the MSU Department of Communication from 1964 to 1966. The effects of three different experimental treatments (literacy, animation, radio forums) were measured immediately after the treatments ended in 1966. The Diffusion Project will make a second measurement of effects, to determine to what extent behavioral adoption as well as attitudinal changes take place, approximately 18 months after the treatments ended.

Intensive studies of the diffusion process will be carried out in two villages during the coming year by A.K. Danda.

Publications Planned

Publications planned for the coming year include Phase I and Phase II reports, first in a preliminary version for limited circulation, and later in book form. A Phase III report will also be written and published. In addition, four papers will be presented at the Rural Sociological Society in August, 1966; three will be authored as part of the forthcoming book from the 3PLWC on survey methods in

developing nations; and a variety of other papers are planned.

NIGERIA OPERATIONS

Capsule Summary

Data-gathering was completed for Phase I (May-September, 1966) and for Phase II (November, 1966-February, 1967). Data from both phases have been coded, and presently are being analyzed at MSU. Preliminary reports of selected descriptive findings were written for both phases and distributed. Phase III was well-established within the pertinent ministries of government, and appeared to be a highly successful effort until the war between the Eastern Region and federal forces in Nigeria forced evacuation of the Project staff from Enugu. From all appearances, the Nigeria Project is terminated, although a slight chance remains for an opportunity to return to the Eastern Region when peaceful conditions return, for the follow-up evaluation data-gathering for Phase III.

Staff during 1966-67

1. Gerald D. Hursh -- Project Leader
2. Allan F. Hershfield -- Associate Project Leader
3. Niels G. Roling -- Assistant Project Leader
4. Graham B. Kerr -- Assistant Project Leader
5. Lawrence O. Obibuaku -- Research Associate
6. E.C. Essien -- Research Assistant
7. Gale R. Hursh -- Coding Supervisor
8. Emeka Onwusika -- Field Worker
9. Ezekiel Okirri -- Field Worker

The above list is comprised of the staff members on payroll until August 15, 1967. Hershfield came to the Nigeria Project in late February, 1967, eventually to assume the duties of Project leader from Hursh who was scheduled to return to

MSU at the end of August, 1967. Roling and Kerr left Nigeria in late June, 1967, and are both scheduled to come to MSU in September to begin their doctoral studies in communication, and to participate in data-analysis and report-writing for Phases I and II.

Obibuaku is a Lecturer in the Department of Agricultural Economics at the University of Nigeria, Nsukka. He was affiliated with the Project part-time, assisting in the conduct and administration of Phase III. Essien, a recent University of Nigeria graduate in Sociology, worked part-time for the Project during 1966-67, and became a full-time Research Assistant on or about July 1st of 1967. Mrs. Hursh was evacuated from Nigeria on June 5th, about a month prior to the termination of the Project. Onwusika and Okirri were principally responsible for Phase III field supervision; Okirri returns now to his previous government post and Onwusika was scheduled to enter the University of Nigeria in September, 1967.

The Project staff also included a secretary, a typist, and a driver.

Institutional Support

The Project was affiliated with the Economic Development Institute (EDI), University of Nigeria. According to the terms of the contract, the EDI provided office space, office furniture, consumable office supplies, and messenger and telephone service. In turn, the Project reimbursed the EDI for certain logistical services, and compensated for office space and hard furniture in the form of rental payments, teaching at the University of Nigeria, and research consultation.

Due to disruptive conditions in the country as well as to the AID/Lagos interpretation of the rather limited degree to which the local mission could provide logistical support to the Project, there was little institutional affiliation with the federal and the regional AID missions. With gradual changes in local mission personnel commencing some months prior to evacuation, interaction between mission and Project personnel increased considerably. AID provided some office equipment

at the beginning of the Project, and was providing transportation and other logistical services in the recent months. Notably, through the personal efforts of the Eastern Region Assistant Director of AID and the Nigeria AID Mission Director, the Project was equipped in April with four radio receivers for the conduct of Phase III treatment.

Institution-Building Activities

The Project sent one Diffusion Research Fellow, Effiong B. Attah, to MSU in July, 1966, to begin work on a Master's Degree in the Department of Communication. Roling and Hursh taught classes in the Department of Sociology and Anthropology at the University of Nigeria, Nsukka. Project members provided research consultation to the EDI senior staff and research assistants, to the Ministry of Agriculture, to the USDA/AID Agricultural Productivity Study, to three of the sub-projects of the Consortium for the Study of Nigerian Rural Development (CSNRD), to members of the Department of Sociology at the University of Ibadan, to the Peace Corps Rural Development Administration, as well as to a number of Ph.D. candidates at EDI. Members of the Project also attended the regular EDI research seminars, and conducted a seminar on Project methods and findings.

Data-Gathering

Originally, it was planned that the Diffusion Project in Nigeria would study three of the four regions in the country. Because the Project could not effect a University affiliation in the Northern Region, it was not possible to work in that part of the country. By October, 1965, one researcher was stationed at the University of Ibadan in the Western Region, with principal responsibility for conducting preliminary research in advance of Phase I and Phase II. Following the military coup in January, 1966, it became increasingly difficult to conduct research in the West, and, following consultations with the Project Director, the Project ceased operations in the West in March, 1966. Thus, the Diffusion Project/Nigeria

consolidated its efforts in one region of the country: the Eastern Region. The Project was headquartered at the Economic Development Institute, University of Nigeria, Enugu.

Not until April, 1966, was the full senior staff -- one leader, an associate leader, and two assistant leaders -- on seat in Enugu. Several months of background research planning, observation, discussion, and sample area selection was accomplished by April 1, 1966. In mid-April, a pre-test was conducted in five villages over a two-week period to develop the final interview schedule and observation forms to be used in Phase I.

In mid-May, 1966, Phase I began. Altogether, 947 personal interviews were obtained from village leaders and progressive farmers in 71 villages throughout the Eastern Region. In addition, 76 usable interviews were obtained from agricultural extension workers servicing the Phase I villages; an observation schedule was also completed for each of the 71 study villages. The first phase of the study was conducted during May-September, 1966, using 10 trained interviewers who lived in each of their seven study villages for two weeks at a time. Each interviewer was visited at least once a week by a senior staff supervisor.

Three pre-test efforts preceded Phase II. One pre-test was conducted in a Western Region village prior to the Project withdrawal from that area. A second, intensive pre-test was done over a ten-week period in an Eastern village in the months of September and October, 1966. Finally, a nine-village pre-test was done in a six-week period spanning October and November, 1966. In mid-November, Phase II was underway, and was concluded in mid-February, 1967. Altogether, 1,347 personal interviews were collected from farmers in 18 villages in the East. Eighteen interviewers were employed during Phase II, working in teams of two and living in each village for six or seven weeks. Supervisors visited each village at least once a week.

While Phase II was nearing completion, formal planning began for Phase III. After three months of proposals, meetings, and scheduling, Phase III officially began April 23, 1967. Ten of the Phase II villages were selected for Phase III. The communication methods used in this experimental phase of the study were (1) radio forums, and (2) community agricultural associations.

Radio forum programs were broadcast in four dialects -- Ibo, Ijaw, Ifek, and Ibibio -- each for a half hour every week. A Radio Development Forum Program Committee was established and was comprised of participants of the Diffusion Project and of the government Ministries of Information, Agriculture, Education, Health, and Rural Development. The formation of the Program Committee, officially sanctioned by the Military Governor of the East, resulted in the first interministerial communication program in the history of the country. In addition to this policy board, a Secretariat was established in the Ministry of Information for the major purpose of supplying field materials and servicing new requests for forums in non-participating villages. A Forum Clearing House was set up at the government radio station, E.N.B.C., for the major purpose of answering inquiries regarding forum programs and mapping the locations of new forum villages. Initially, 19 forums were established; and over 60 forums were functioning in June of this year. The second communication method involved the establishment of village agricultural groups composed of different types of village leaders. The groups were called "Agricultural Progress Committees" and were established under the auspices and with the direct field cooperation of the Ministry of Agriculture. Supplementing the efforts of the extension agents working with the village committees was a publication entitled the "Progressive Farmers' Handbook: 1967." Response to this book, which was a comprehensive description of technical programs offered by the Ministries of Agriculture and Rural Development, was sufficiently favorable that the Ministry of Agriculture was making preparations at the termination of the Project for printing

5000 copies of a revised 1968 edition.

Data-Analysis

All Phase I and II data have been coded, and both sets of data presently are being prepared for computer analysis. Preliminary reports of selected Phase I and II descriptive findings have been circulated.* As yet, a detailed analysis has not been made of data from either Phase I or II.

Future Project Activities

The Project, as best we know, is terminated in Nigeria. The latter part of 1967 and the early part of 1968 will be given to completion of the final reports of findings for the first two phases, as well as to reporting on the administrative procedure involved in institutionalizing new communication strategies in a developing country -- i.e., Eastern Nigeria. Another report will deal with some tentative findings on effects of the Phase III experiments. Finally, members of the Nigeria team will participate in the writing of a book on survey research methods in developing nations.

*See AID/MSU "Diffusion of Innovations" Research Reports No. 71 and No. 72.