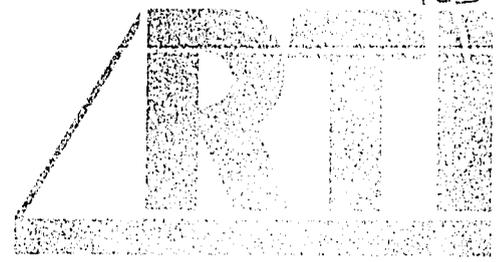


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RESEARCH TRIANGLE INSTITUTE

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WORKPLAN FOR YEAR 1

DRAFT

INTEGRATED POPULATION AND DEVELOPMENT PLANNING - II [INPLAN]

Project Number AID/DPE-3027-C-00-4068-00

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EXECUTIVE SUMMARY

This document describes the nature and scope of activities to be undertaken during year 1 under the Integrated Population and Development Planning project - II (INPLAN). INPLAN is a three year project (October 1984 through September 1987) with the principal objectives of (a) assisting planners to understand population-development links and to better incorporate population considerations into development planning, and (b) encouraging improved population-related policies. Major INPLAN project components are training, technical assistance and research support. Project activities will be worldwide, regional and country-specific in scope.

During the first year of INPLAN, principal worldwide training activities will include a three-month training program at RTI for ten to twelve technical staff (English-speaking) from planning ministries of selected INPLAN countries, support for five participants at the University of Michigan course on population and development in the fall of 1985, preparations for a two-week inter-regional seminar on population and development planning for 35 senior government officials to be held in Washington, DC, in the fall of 1985, and possibly a workshop at RTI on data analysis for population and development planning.

Principal technical assistance activities will involve developing four or five population and development planning models and applying them in about 10 countries. Planning models are expected to be developed and applied for education, manpower and employment, multiregional population projections, family planning cost-benefit analysis, and health and family planning services.

During its three-year life, the INPLAN project is expected to provide technical and financial assistance, through subcontracts, to 18 research activities in developing countries which are directly tied to population-related development planning. Ten to twelve of these research support activities are expected to commence during year 1.

In support of INPLAN training, technical assistance and research support activities, about 20 microcomputer systems will be provided to INPLAN project countries during year 1.

Two or three regional training seminars in population and development planning applications are expected to be undertaken in year 1. The location and specific content of these seminars will depend on availability of buy-in funds from regional bureaus.

During year 1 major country-specific project activities are expected to be undertaken in ten to twelve countries in all AID regions. Final selection of project countries will be made subsequent to initial project development trips. Such trips are anticipated for all or most of the following countries:

Africa: Burkina Fasso, Kenya, Nigeria, Rwanda, Senegal, Zaire,
Zimbabwe

Asia: India, Indonesia, Pakistan, Sri Lanka, Thailand

Latin America and Carribean: Bolivia, Brazil, Ecuador, Mexico,
Peru

Near East: Egypt, Morocco, Tunisia

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I. INTRODUCTION AND OVERVIEW

The purpose of this document is to describe the nature and scope of INPLAN project activities expected to be undertaken during year 1 (October 1984 through September 1985), including (a) allocation of project resources, (b) staff inputs related to types of activities and time patterns, and (c) country-specific project activities.

The INPLAN project has the following general objectives: (1) to strengthen the technical capabilities of planning institutions to understand population-development links and to incorporate population considerations into development planning, and (2) to foster dialogue between planners and policymakers so as to encourage government policies that are based on this understanding.

In order to achieve these objectives, the INPLAN project will provide tailored assistance through (1) training, (2) technical assistance, and (3) research support activities. These three project components will be closely integrated and mutually supportive in major project countries. The types of training, technical assistance and research support to be provided under the project are described in some detail in this document. Much of the technical assistance will consist of (a) developing and applying--in collaboration with planners in selected countries--development planning models in key population-related sectors, such as education, employment and manpower, health and family planning, and food and agriculture, and (b) incorporating microcomputers into development planning in significant ways through

procuring, testing, training planners in the use of, and installing microcomputers in many project countries.

Most project activities will take place within individual countries; some activities will be regionally-based outside the United States; other activities will be worldwide in character, including U.S.-based training, although applications of many worldwide activities (such as developing planning models) will often be made in specific countries or regions.

This document is organized primarily on a geographical basis, presenting information on expected project activities during year 1 within each geographical category. The categories are (a) worldwide, (b) regional and (c) country-specific. The final sections give the expected timing of project activities and a summary of expected project inputs during year 1.

II. WORLDWIDE ACTIVITIES

A. U.S.-based Training

U.S.-based training supported under INPLAN during Year 1 is expected to consist of the following:

- (1) Conducting a three-month course at RTI on techniques and methodologies of population and development planning, for 10-12 technical staff (English-speaking) from planning ministries of selected INPLAN project countries (to be held approximately March through May 1985);
- (2) Supporting five participants from selected developing countries at the University of Michigan seminar-long course on population and development (September to December 1985);
- (3) Preparing for a two-week inter-regional seminar on population and development planning, for 35 senior planning officials from about 25 developing countries (scheduled for Fall 1985); and
- (4) Possibly holding a workshop on data analysis for population and development planning, for 5-6 participants from INPLAN project countries, in conjunction with INPLAN Research Support activities in those countries (see Research Support section, below).

Each type of training is discussed below.

(1) Three month course at RTI on techniques and methodologies in population and development planning

RTI will offer this training program during approximately March - May 1985 for 10-12 planners who are responsible for technical aspects of planning in key population-related sectors. This course will be offered with the assistance of faculty from universities in the Research Triangle area as well as guest lecturers from elsewhere, particularly other AID population projects. The course curriculum

will include the following: (a) basic demographic concepts and methods, (b) population and economic development issues and relationships, (c) approaches to population and development planning, (d) population and development planning techniques, including use of planning models, (e) population and development planning in specific sectors, such as education, manpower and employment, health, nutrition and family planning, food and agriculture, and housing and urban development, and (f) the use of microcomputers in planning. The course will have a heavy "applications" orientation, divided approximately equally between lectures and "hands on" use of microcomputers for making population projections; applying planning models; and using commercial software for statistical analysis, data and information processing and management, budgetting and financial management, and report preparation.

In 1985 the course will be offered to participants from English-speaking developing countries although in subsequent years a shorter version of the course is also expected to be offered in French and Spanish.

(2) The University of Michigan Fall Training Program in Population and Development

Since 1980 the Center for Population Planning of the University of Michigan, with the collaboration and support of the International Labour Organization, has offered a seminar-long program of study in population and development. Program participants have come from over 15 developing countries, with a total of about 5-10 participants each

year. The curriculum includes (a) economic theory as it pertains to planning and development, (b) demography or population studies, (c) economic development and planning, (d) the historical experience of population policies and family planning programs, and (e) application of theories to planning through practical exercises. During 1981-83 the IPDP project supported a total of seven participants in this program.

It is planned that five participants will be supported by the INPLAN project during the Fall 1985 session.

(3) Two-week inter-regional seminar for senior planning officials

Two inter-regional seminars for senior planning officials are expected to be organized and conducted under the INPLAN project during the three years of the project. The first is expected to be held in Washington, DC, during the first quarter of the second year. These seminars will be modeled on the three IPDP seminars, the most recent of which was held in Washington, DC, in July 1984. Preparations for the Fall 1985 seminar will get under way in the spring and continue through the summer. About 35 participants are expected from about 25 developing countries. Topics are expected to include, (a) basic demographic concepts, issues and methods, (b) fertility, mortality and migration determinants and consequences, (c) planning issues in key population-related sectors, (d) microcomputer-based policy and planning models, and (e) approaches and priorities in population policy, planning and programs.

(4) Workshop at RTI on data analysis for population and development planning

This training program would be directly linked to INPLAN research support activities in approximately five or six principal countries. Experience under IPDP demonstrated that considerable technical assistance and training were required from project staff to enable project-supported researchers to undertake and satisfactorily complete essential data processing and analysis. Important benefits, including improved cost-effectiveness, would be derived from working with several researchers simultaneously rather than on a one-on-one basis as was a common situation under IPDP.

We anticipate holding about a four-week workshop at RTI during the summer of 1985 for five or six researchers carrying out INPLAN-supported research projects. Further information on this workshop is provided under the "Research Support" section below.

B. Model Development

Several planning models will be developed under the INPLAN project and applied in fifteen or more countries. In order for this to be accomplished in an efficient fashion, an approach will be adopted by which repetition of model development tasks is held to a minimum. This will be accomplished by pursuing two related strategies: First, INPLAN staff will develop various sector "modules" which can be easily linked together as required for various country-

specific applications. Second, we will develop a modeling software "shell" which handles routine programming tasks such as input and output, graphics displays, file handling, etc., and can be used in all models. A large part of any model's computer program is concerned with such tasks and to have these programmed in a general way will free the modeler and host country planner to concentrate on the more substantive aspects of sector model development. Development of the modeling software will be given top priority during the first few months of the project since the existence of modeling software is a prerequisite to any model application. (See section on microcomputers.)

The specific sector models will be developed in conjunction with expected country applications. Although it is difficult to predict in which countries models will be developed initially, early AID Mission responses to the INPLAN announcement cable, as well as IPDP experience, suggest that the following countries and models might be involved:

Bolivia:	Multi-regional Population Projections; Manpower/ Employment
Egypt:	Cost-Benefit of Family Planning
India:	Education; Health
Indonesia:	Cost-Benefit of Family Planning
Morocco:	Education, Manpower/Employment
Nigeria:	Manpower/Employment; Cost-Benefit of Family Planning
Peru:	Cost-Benefit of Family Planning; Health; Multi- regional Population Projections
Senegal:	Cost-Benefit of Family Planning; Education
Sri Lanka:	Cost-Benefit of Family Planning
Tunisia:	Manpower/Employment; Macroeconomy

From the above list it is clear that initial model development activities should focus on the following sectors: Education, manpower

and employment, and cost-benefit of family planning. As indicated in RTI's INPLAN proposal, models for these sectors have already been developed for specific country applications under IPDP and other RTI projects. Model development work will therefore focus on improving and generalizing the existing models. This will involve several aspects. First, a thorough review of existing modeling techniques will be undertaken for each of the models. Second, the major input and output variables for each of the models will be identified; this will aid in development of the software shell. Third, where possible and in connection with country applications, the models will be programmed with the new modeling software to be developed by INPLAN staff (described above).

The one sector for which substantial model development is needed is the family planning sub-model. This sub-model will connect family planning program expenditures to the fertility rate and is a necessary component of future cost-benefit studies of family planning. Work here will consist of determining if the Bongaarts' framework can be extended or if an alternative framework should be developed. A thorough review of existing techniques will be conducted and a sub-model for this area developed.

As an independent task during the first year, the Multiregional Population Projection program developed under IPDP for the VAX minicomputer and the Apple II microcomputer will be adapted to IBM microcomputers. Initially this will be supported as a "stand alone" model for INPLAN country applications where regional population projections are wanted. However, some consideration will be given to

using this model as the "core" demographic projection model for sector applications since it can be "collapsed" to the simpler standard cohort-component model. It is also anticipated that further work needs to be done on preparing documentation for the model in order to make it easier to use.

For planning INPLAN staff commitments we assume that there will be two or three education model applications (India, Senegal, Morocco), four manpower/employment applications (Morocco, Nigeria, Tunisia and a Latin American country), two or three Cost-Benefit of Family Planning applications (Egypt, India, Nigeria, Peru, Senegal or Sri Lanka), and one or two Multiregional Population Projection applications (Bolivia or Peru). Labor requirements are indicated in section VI and exhibit 2.

C. Microcomputers

1. Implementation of Sectoral Models on Microcomputers

The success of the microcomputer model implementation will greatly influence the success of the demographic-economic modeling effort. In fact the distinction between a model and its computer implementation is often lost to the user of the software. While a projection model may provide a great deal of useful planning information, clumsy, difficult-to-use computer software, or malfunctioning, poorly supported hardware may cause it to remain unused.

Priorities for the first year of INPLAN microcomputer program development activities are as follows:

- (a) Selection of a program development environment--a combination of microcomputer hardware, programming language and operating system.
- (b) Design, implementation, testing and documentation of completely generalized data file structures providing all information necessary for external procedures to efficiently access any data required from the program data base.
- (c) Design, implementation, testing and documentation of a generalized full-screen editor capable of accessing and modifying any data in the program database.
- (d) Implementation, testing and documentation of a core demographic projection model as a program module.
- (e) Design, implementation, testing and documentation of a tabular output module.
- (f) Implementation of other sector models as program modules, as recommended by the modeling task group.
- (g) Design, implementation, testing and documentation of a graphic output module.

2. Selection of microcomputer hardware

Selection of appropriate microcomputer hardware will consider the principles stated in RTI's INPLAN Proposal, as well as the recommendations of AID and AID contractors involved in microcomputer-related projects. At the present time only IBM compatible hardware is being considered. In order to make the most informed decisions possible, we have established the following general guidelines:

- (a) INPLAN will identify microcomputer hardware which appears to best satisfy the large variety of LDC conditions and capabilities.
- (b) Microcomputer hardware will be selected based on its suitability for the implementation of large, calculation intensive programs, its ability to be maintained in target countries, its compatibility with commercial software of

importance to this project, its projected longevity as an industry supported machine and its overall cost effectiveness.

(c) Hardware meeting the above criteria will be tested by RTI to determine its suitability before any such hardware is transferred to a target country.

Specific steps to be taken early in the first year of the project include:

(a) Acquisition by the Project of microcomputers selected according to the previously stated criteria to be used initially as program development and support machines.

(b) Testing of these potential system configurations by INPLAN staff, to be performed concurrently with the testing of potential commercial software packages.

(c) Determination, based on the above experience, of a primary system configuration for transfer to target countries.

(d) Acquisition by the Project of a limited supply of the hardware composing the primary configuration based on projected needs over a period of four to six months.

3. Establishment of a maintenance policy

Before any microcomputer systems are transferred to target countries, a hardware maintenance policy will be established by the project. This policy should cover all contingencies and should include the evaluation of appropriate diagnostic software as well as the development of a maintenance, diagnostic and service manual to be provided with each microcomputer system. INPLAN staff members will be provided with additional training in the maintenance and repair of microcomputer systems. In addition, INPLAN staff members will receive further instruction in potential LDC host country supply problems and how to deal with them.

4. Selection of a computer program development environment

The selection of an appropriate operating system, language and compiler for program development are of primary importance to the success of the computer programming effort. A determination must be made early in the first year of the project, but should not be made without careful consideration of the available options and their long-term consequences. The Microcomputer Task Group has defined the following guidelines for selection of a development environment:

- (a) The development environment must allow the program easy access to the dominant MS/PC DOS Operating System while allowing the programmer and program operator easy access to the program.
- (b) A large number of commercially available software tools must be available to aid in program creation, debugging and testing. Such tools include dynamic debuggers, graphics procedure libraries, I/O utility libraries, screen design utilities and ISAM/KSAM/Btree file management utilities.
- (c) The development environment should minimize the number of steps required to correct, recompile, relink and run the revised program.
- (d) Procedure libraries should be supported in a way which minimizes any linking of separately compiled code modules.
- (e) A flexible mechanism for overlaying code segments must be available.
- (f) Support for the 8087/80287 numeric coprocessing chip.
- (g) A clear path for migrating the program to succeeding hardware and operating systems with a minimum number of required modifications.

Steps to be taken during the first few months of the Project include the acquisition and testing of prospective operating systems and compilers.

D. Research Support

As indicated in the Request for Proposals and the RTI proposal, a major type of activity in support of the INPLAN objectives will be the provision of support for 18 research projects by host country researchers which will be instrumental in integrating population factors into development planning and demonstrating the links between rapid population growth and the ability to attain socio-economic development objectives. Specific types of research support will vary depending on the local environment, ranging from research which is rather circumscribed and meant to support INPLAN modeling activities to research which may involve primary data collection, although incidence of the latter is expected to be rather low. The proposal describes more fully the types of research which may be supported. In all cases, it is expected that considerable technical assistance and training will be an integral part of the support provided by RTI. In most cases, it is expected that at least a part of the research will be carried out by a host country institution under sub-contract with RTI. Research support will, of course, be country-specific in the sense that the data will be from the host-country and will be relevant to its planning process.

Prior to completing the first project development trips to countries, it is not possible to specify the type of research support that might be appropriate for particular countries. It will be necessary to determine, in collaboration with the Mission and host country planners, the types of information which will be most valuable and the availability of the data to be analyzed.

Although research activities require information from project development trips, guidelines for INPLAN staff to follow in identifying appropriate projects and determining necessary technical assistance to be delivered in conjunction with these projects are currently being developed by the INPLAN research committee. Emphasis will be on research activities which are directly relevant to the planning process. Staff will determine availability of appropriate data and will make every effort to work with host country personnel to design the activities so that they make maximum use of extant data and minimize the need for primary data collection.

Past experience on IPDP and other projects has shown that considerable technical assistance and training are necessary if research projects are to be technically sound and pertinent to the planning process. This seems to be true especially in Africa where constraints of trained personnel and hardware and software have been most acute. Under IPDP much of the technical assistance and training in analysis in connection with research activities was carried out at RTI in a one-to-one setting which was extremely demanding of staff time. Although the results were gratifying both from the point of view of the analyses and enhanced capability on the part of host country personnel, a group setting would be more cost effective. Therefore, we expect to provide technical assistance and training in analysis in a workshop setting when the timing, topics and characteristics of the researchers are conducive. The workshop will probably be held at RTI but perhaps in region. Up to six host country analysts could be accommodated in such a workshop. Participants would be from countries and institutions which already had or were about to

receive microcomputers with SPSS or other appropriate software packages. INPLAN is currently evaluating SPSS/PC and will evaluate other promising packages in the near future. During the workshop participants would be trained in the use of a microcomputer statistical software package--probably SPSS/PC--and analytic approaches and would carry out at least preliminary analysis of their own data. Earlier phases of the research, if necessary, and completion of analysis and dissemination activities would be carried out under sub-contracts. Where feasible the model described in the proposal, of individual host country researchers carrying out all phases of the research activities in-country with technical assistance and training as necessary from INPLAN staff, will be followed. Nevertheless, we believe that the workshop approach to teaching computer and analytical methods as well as carrying out analyses may prove to be cost effective and to provide a number of other benefits as well.

Pages 79-81 of the proposal describe in some detail the procedures to be followed to assure high quality, relevant research activities. We summarize them here. In addition to the country coordinator and the INPLAN staff member responsible for the research activity, a research committee has been formed which will play a major role in the initial and ongoing review and implementation of research projects. The following steps summarize the procedures for research projects.

1. Identify potential research activities, data and implementing institutions. This step will usually be carried out on the first project development trip of INPLAN staff to a country.
2. Proposal development. In general, on a subsequent trip to

the country INPLAN staff will work with host country personnel to develop a very brief research proposal, although the timing of this may vary and, in some cases, host country personnel may develop them on their own. Suggested guidelines for the proposal are being developed. It should be stressed that the proposal should not be viewed as a document to be used in a competitive process but to communicate information so as to assist RTI and AID in evaluating the activity and planning appropriate technical assistance and training to take place in conjunction with the activity.

3. Proposal submitted to INPLAN research committee. The research committee will review the proposal along with plans for technical assistance and training to be provided in conjunction with the research activity and as presented in the country strategy. It will make recommendations for acceptance, rejection or for changes which would make the proposed work either more technically sound or more relevant.

4. Proposal submitted to AID CTO along with comments of the committee. The AID CTO will supply any additional comments and suggestions to be forwarded to the author.

5. Comments and suggestions forwarded to author. In general, the author will not be asked to revise the proposal but simply to agree to proposed changes.

6. Final description of work sent to AID CTO and Mission for final approval.

7. Approval by AID CTO and Mission.

8. Subcontract drawn up by RTI and sent to USAID/W (contracts), CTO, and Mission.

9. USAID/W approval of subcontract received by RTI.

10. Subcontract signed by RTI and sent or carried to host-country institution for signature.

11. Host-country institution begins implementation of project. If feasible, this step will take place during a visit of INPLAN staff and in many cases may also coincide with step 10.

12. Implementation.

As indicated in the proposal, it is expected that most research activities will take well over a year to complete. It is therefore necessary that they begin as early in the project as possible. During the first year, it is planned that work on ten to twelve of the required 18 research activities will be initiated. For planning purposes, it is anticipated that five or six of these will be workshop oriented, with the workshop taking place in the summer of 1985; three or four of them will be directly in support of modeling activities, with the work taking place entirely in-country; and that two will take place entirely in-country and will not provide data directly for the models being developed. With the possible exception of the modeling support research activities, it is expected that work on the research activities begun in the first year will carry over into the second year of the INPLAN project.

III. REGIONAL ACTIVITIES

The INPLAN project is prepared to undertake two or three regional training activities in year 1, provided that buy-in funding from regional sources is available. Regional training will be aimed at refining and augmenting the technical skills of LDC planners. It will introduce them to more advanced planning techniques and more effective methods of communication with policymakers. The regional nature of the seminars will allow planners from neighboring countries with a common language and in some cases similar problems to share experiences in dealing with the technical aspects of population and development planning. At the same time, new and advanced techniques can be introduced to several countries simultaneously and prospects for the adaptation of the techniques by the countries assessed. A further advantage is the potential to allow countries stronger in population planning programs to serve as models for weaker countries.

Participants in these seminars will most likely come from the mid- to high-level ranks of the technical personnel of planning ministries or other key population-related ministries. Topics for the regional seminars will be more focused and advanced than those for the in-country seminars. Examples of possible topics include the following: (1) Techniques for cost-benefit analysis of family planning, (2) Analysis of the health impact of family planning, (3) Manpower and employment forecasting techniques, (4) Multiregional population projection techniques, and (5) Construction of multi-sector models with feedbacks.

The following are possible regional foci together with possible sites for the training itself:

- Nairobi: Anglaphone African countries, especially those from Eastern and Southern Africa
- Dakar or Lome: Francophone African countries (also Francophone Near East countries?)
- Dakar or Bamako: Sahelian countries
- Bangkok: Asian countries
- Quito: Latin American countries
- Amman: Near East English-language seminar

Depending on subject matter and other circumstances, it is also possible that trainees from two or more regions might participate in a single training program. Possibilities include a training program for participants from Francophone countries in Africa and the Near East, and participants from English-speaking countries in Africa, the Near East and/or Asia.

The staffing requirements for regional seminars will depend on which regional activities are actually funded (through Regional Bureau or Mission buy-ins) and, to some extent, the specific subject matter. In general, it is anticipated that about 25 weeks of technical and support staff time (including consultants) will be required for each regional seminar. This includes time for preparing seminar lectures and materials, one one-person trip to the country site for seminar preparation, and three staff (on average) for two to three weeks each at the seminar site to conduct the seminar.

IV. COUNTRY-SPECIFIC ACTIVITIES

Based on Mission responses to the INPLAN worldwide announcement cable of September 1984 together with the current Policy Development Division list of country priorities, there are potentially over 20 principal INPLAN project countries during year 1. These include the following:

- Africa: Burkina Fasso, Kenya, Nigeria, Rwanda, Senegal, Zaire, Zimbabwe,
- Asia: India, Indonesia, Pakistan, Sri Lanka, Thailand
- Latin America and Carribean: Bolivia, Brazil, Ecuador, Mexico, Peru
- Near East: Egypt, Morocco, Tunisia

The INPLAN project can probably undertake major activities in only 10 to 12 countries during year 1. The selection of principal project countries for year 1 and the exact configuration of country-specific project activities will be worked out during the initial project development phase (during the first and second quarters of year 1).

In selected countries the INPLAN staff will (a) provide country-based training, (b) apply one or more INPLAN planning models, (c) provide one or more microcomputer systems, and (d) undertake a research support activity.

Although for most countries it is premature to indicate specific project activities, based on information currently in hand project activities might develop along the following lines:

Africa

Nigeria has requested further training and technical assistance in microcomputer applications to planning, the application of an employment and labor force forecasting model and a family planning program cost-benefit model.

Project activity in Rwanda likely will include further training and technical assistance in microcomputer applications to planning and possibly a research support activity.

Senegal has requested the application of an educational planning model and a model of the health benefits of family planning programs. A related research support activity will likely be developed.

The Mission in Zaire is interested in INPLAN assistance in several areas, including technical assistance and training in use of microcomputers in the preparation of Zaire's 1986-90 development plan, and complementary research support.

Asia

The Mission in India has indicated an interest in planning models for health and education, and associated training and technical assistance.

The Mission in Indonesia has indicated interest in a microcomputer-based family planning program cost-benefit model and associated training, technical assistance and research support.

The family planning program cost-benefit model may be adapted to Sri Lanka, with associated technical assistance, training and research support.

In Thailand assistance may be provided for evaluation of population growth impacts on particular economic sectors, as input into preparations for the five year plan for 1987-91.

Latin America and the Caribbean

The AID Representative in Brazil has requested substantial technical assistance, training and research support directed to evaluating the consequences of projected population growth.

Possible INPLAN activities in Bolivia include further applications of the regional population projection model to include regional employment and labor force forecasts.

INPLAN activities in Mexico are likely to involve assisting the new National Population Commission to incorporate population policies into sectoral planning.

The Mission in Peru has indicated strong interest in the family planning program cost-benefit analysis and the multiregional population projection model, and in related technical assistance, training and research support.

Near East

Possibilities for INPLAN assistance in Egypt include technical assistance to the new National Family Planning Board to adapt the cost-benefit model to Egypt's family planning program, and possibly training and technical assistance in sectoral planning.

The Mission in Morocco has requested assistance to assess the impact of population growth on economic and social development, as an input into preparations for the 1986-88 development plan, and includes the provision of technical assistance, microcomputers and associated training.

Project activities in Tunisia will likely consist of further assistance and training in the application of models in education and employment planning.

V. TIMING OF PROJECT ACTIVITIES

The following exhibit shows the anticipated timing of each discrete project activity. No country-specific activities are firm at this point in time since no initial country visits are yet completed and only the first set of visits is underway (to Sri Lanka, Thailand and Indonesia). Therefore, the schedule shown in the exhibit will be revised in response to the results of initial visits and other new information. However, the exhibit indicates the number of discrete activities which are expected to be undertaken under each Task although the specific country applications and timing of many activities will no doubt change as project implementation proceeds in the months ahead.

Exhibit 1. Anticipated Timing of INPLAN Activities in Year 1

Tasks	1st Quarter (Oct-Dec)	2nd Quarter (Jan-Mar)	3rd Quarter (Apr-June)	4th Quarter (Jul-Sept)
Project Development (16) [Includes preparing Country Strategy papers]	x--S. Lanka-- x----Thailand-- x----Indonesia-- x-----Ecuador-- x-----Bolivia-- x-----Brazil-- x-----Peru-- x-----Morocco-- x-----Senegal-- x-----Egypt-- x-----Nigeria-- x-----India-- x-----Tunisia-- x-----Zaire-- x-----Rwanda-- x-----Zimbabwe--	----x [DNC] ----x [DNC] ----x [DNC] -----x [LAC/RSM] -----x [OW] -----x [OW/LAC] -----x [OW/LAC] -----x [JKn] -----x [JKn] -----x [JKn] -----x [JEK] -----x [JEK] -----x [RSM] -----x [RSM] -----x [ESF]		
US-based Training (3)	x--RTI course	[JEK/ESF]--www	wwwwwwwwww--x x--U. of Mich.--www	
Country-based Seminars (6)		x----- x----- x----- x-----	--www--x --www--x --www--x --www--x x----- x-----	
Regional Seminars (2)		x----- x-----	--www--x --www--x	www--x
Inter-reg Seminar			x--[JEK]	
Dev. Model Software	x-----	--[GMC/RSM]--	--x	
Model Development (5)	x--1=Education-- x--2=Manpower/Empl.-- x--3=Reg. Pop. Proj. Model-- x--4=FPP Cost-Benefit-- x--5=Health & FP Serv.--	-----x -----x -----x -----x -----x		

Exhibit 1, cont. Anticipated Timing of INPLAN Activities in Year 1

Tasks	1st Quarter (Oct-Dec)	2nd Quarter (Jan-Mar)	3rd Quarter (Apr-June)	4th Quarter (Jul-Sept)	
Model Applica- tion (11)	x-----	--S.Lanka-----	--[DNC]-----	-----x	
	x--	--Indonesia--	--[PNC]-----	-----	
	x--	--Bolivia--	--[OW]-----	-----x	
	x--	--Peru--	7-[OW/LAC]-----	-----	
	x--	--Tunisia--	--[RSM]-----	-----x	
	x--	--Zaire--	✓-[RSM]-----	-----x	
	x--	--Morocco--	✓-[JKn]-----	-----	
	x--	--Senegal--	✓-[JKn]-----	-----x	
		x----	--Egypt--	-----	-----
		x--	--Nigeria--	-----	-----x
		x--	--India--	-----	
Research Support (12)	x---	--S.Lanka--	-----	-----x	
	x---	--Thailand--	-----	-----x	
	x--	--Indonesia--	-----	-----	
		x--	--Bolivia--	-----	-----x
		x--	--Brazil--	-----	-----
		x--	--Morocco--	-----	-----
		x--	--Senegal--	✓-----	-----
		x--	--Nigeria--	✓-----	-----
		x--	--Egypt--	-----	-----
		x--	--India--	-----	-----
		x--	--Zaire--	-----	
		x----	--Zimbabwe--	-----	

Key:

- x-----x Identifies anticipated beginning, duration and end of specific activity
- [] Indicates INPLAN staff member(s) with principal responsibility for specific activity
- www Indicates approximate dates of specific training program or seminar

VI. PROJECT INPUTS

Three major types of expected project inputs are summarized here: (1) estimated amounts of staff time, by major activities, (2) project-related international travel, and (3) microcomputer systems to be delivered under the project.

Exhibit 2 shows anticipated time inputs by technical staff, by activity, during year 1. RTI senior technical staff are expected to provide about 78 person months of time to the project during its first year, with about 23 person months to be provided by junior technical staff. In addition, Mary Scott will work full-time as Project Manager. Under a subcontract with The Knowles Corporation, Dr. James Knowles will commit seven months to the project, and an estimated nine months of time will be provided to the project by consultants.

During year 1 a total of about 35 international trips are anticipated for RTI staff and INPLAN subcontractor Jim Knowles. Seven project development trips are anticipated, to 16 countries. It is anticipated that there would be an additional approximately 15 trips which would be primarily for in-country or regional training, and another approximately 15 trips which would be primarily for model application and/or research support activities. Many of the training and model application/research support trips would also be multiple country trips.

Finally, it is anticipated that about 20 IBM/XT, IBM/PC-AT or other IBM-compatible microcomputer systems will be provided to project countries during year 1.

Exhibit 2. Estimated Number of Person Months on INPLAN
Activities in Year 1

Activity	RTI Senior Technical Staff	RTI Junior Technical Staff	Knowles Corp. (J. Knowles)	Consultants
Project Development	10.5*	3	2**	0
U.S.-based Training				
- RTI 3-mo. course	6.5	8	0.5	1
- Michigan course	0.5	0.5	0	0
- Data Workshop	3.5	3	0.5	0.5
Country-based Seminars (6)	18	1	0	2
Regional Seminars (2)	9	1	0	1
Inter-reg. Seminar	2	2	0	0
Dev. Model Software	3.5	1	0.5	1
Model Development	7	1	1.5	1.5
Model Application***	13	1	1.5	1.5
Research Support***	5	1.5	0.5	0.5
Totals	78.5	23	7	9

In addition to the above RTI staff inputs, INPLAN Project Manager Mary Scctt will work full-time on the project.

RTI Senior Technical Staff are Kocher, Fried, Moreland, Chao, Wolowyna, L.Crouch, Cressman and Olson Crouch. RTI Junior Technical Staff include Fugate, Napolitano and Ryon.

*13 Countries

**3 Countries

***Excludes project development time which is listed separately