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PHN
Department

Incoming
Correspondence

(1986)

Dr. K.C. Zachariah

Mr. Zachariah

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION
OFFICE MEMORANDUM

DATE: 4 May 1987

TO: Mr. Borje Tallroth, WAlNI

FROM: David J. Radel, PHND2

EXTENSION: 61601

SUBJECT: NIGERIA: Population Estimates

1. You asked me for comments on Ted Rice's note to you regarding the population estimates for Nigeria that he was hearing from the Federal Office of Statistics (FOS), namely, between 80 and 85 million. I've discussed this with several knowledgeable colleagues, including Mr. K. C. Zachariah and Ms. Althea Hill from our Policy and Research Division. There are strong reasons not to place much stock in the estimates from FOS staff. Several years back, Ms. Hill spoke with FOS staff who were preparing projections and found their methodology to be highly questionable. As you are probably aware, FOS is not charged with responsibility for population data; the National Population Bureau (NPB) is. There is considerable rivalry between them and therefore reason to believe that FOS staff may wish to discredit NPB's work.

2. That, of course, does not answer the question of what is the best estimate of Nigeria's current population. Apparently the Bank's projections take the NPB's estimate as of 1980 and then apply thereafter our own estimates of fertility and mortality. The NPB's estimates are based on the 1963 census, which is widely agreed to have involved an overcount, but then this has been largely offset over the years by application of a much too low annual growth rate (2.5%). The Bank's "official" projection for WDR is 106.7 million for mid-87. This is mid-way between two other projections for mid-87: (a) the United Nations estimate of 102.0 million, and (b) the U.S. Census Bureau estimate of 108.6. (The latter was done by people who have a fair amount of working familiarity with Nigeria's demographic data and should, Mr. Zachariah feels, be taken seriously.) It is interesting to note that there is a convergence occurring with regard to these three estimates, perhaps as a result of supplementary data sources becoming available. Several years ago they were much further apart.

3. A major source of "new" demographic data on Nigeria will be the one million sample National Demographic Survey, which was carried out at the beginning of this decade. I mentioned to you that Westinghouse Health Systems people are analyzing it currently. We checked with them. The estimated total for the country is not quite ready since they are having some problems still with the data for one or two states. They are concluding from the states that are completed that by-and-large NPB's current state-level projections are high for northern states and low for southern states (e.g., Imo being perhaps twice as populous as the official projection!). When the results are available, we shall share them with you.

cc: Ms. Hill, Mr. Zachariah, PHNPR; Mr. Skolnik, Mr. Brown (o/r), Ms. Denton, Ms. Domingo, Mr. Ecevit, Mr. Khan, Mr. Over, Dr. Scheyer (o/r), PHND2; Ms. Mehra, Ms. Salop, WAlNI; Mr. Rice, WAPAB; Mrs. Mojidi, RMN (Lagos)

DF: Nigeria--General

DRadel:pl (b:estimates)

THE WORLD BANK / INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

File

DATE: April 27, 1987

TO: Mr. Dennis de Tray, DRDDR

FROM: Rashid Faruqee, WAIDB RF

EXTENSION: 34493

SUBJECT: Evaluation of RPO 672-60

Thank you very much for sharing with me the evaluation reports of the internal and external reviewers of the above-mentioned research project. REPAC's decision in October 1986 to include the evaluation report in FY87 rather than FY86 gave me enough time to go back to my notes to provide a response to the reviewers' evaluation of the output of the project.

This memo is divided into three parts. First I outline once more the special circumstances under which the research project was implemented and note developments since the completion report in June 1984. Second, since your draft summary report is based on the two reviews, I give my comments on them. Last, I offer comments and suggestions on your draft summary evaluation.

Background and Update

As I mentioned in my memo of December 18, 1985 (which I wrote when the evaluation started), the research project was implemented under very unusual circumstances. The project was approved by the then Research Committee on December 22, 1981. However, soon after approval, the reorganization of DPS-CPS started. As a result of the reorganization, I transferred to the West Africa Programs Department. At the time of transfer, it was agreed that PHN would have responsibility for the projects, of which I was the principal investigator. The attached memo of May 27, 1982 records the arrangement made for completion of the research projects under my supervision.

For this particular project, the team that was already working was to continue under PHN supervision, but I promised to be available for consultation. Because of staff constraints, PHN, however could not provide any supervision of the ongoing work. Because of my professional commitment to the project, I helped as much as I could on my own time, despite my heavy work load as a Country Economist.

The project envisaged a periodic review of the results by a working group of national planners, administrator and researches in Bangladesh. This did not materialize because of my absence. Furthermore, the large body of household data that the project was to process, computerize and analyze, were collected by the Bangladesh Institute of Development Studies (BIDS) in several phases of surveys. In the course of the work, researchers working on the project found

that there were many gaps and inconsistencies in the data set. These data problems could have been resolved by continued association with the BIDS, but that linkage was not pursued after my transfer.

At the time of termination of the project (June 1984), several draft papers by participants were available that were to be used as a part of consolidated report. Since proper direction and supervision were not available, it was decided that the project should be terminated and the draft papers should be considered as the output. Since then the different authors worked further on the drafts, and so far three of the papers have been published, while another two have been accepted for publication: The papers are:

1. Ruhul Amin, et al., "Fertility, Contraceptive Use and Socioeconomic Context in Bangladesh, Demography India (Institute of Economic Growth, New Delhi), Vol XIV. No. 1, 1985.

2. Ruhul Amin, et al., "Infant and Child Mortality in Bangladesh, 1959-1976, Demography India (Institute of Economic Growth, New Delhi), Vol XV. No. 1, 1986.

3. Ruhul Amin, "Trends and Differentials in Knowledge Ever Use, Current Use and Future Intended Use of Contraceptives in Rural Bangladesh, Evidence from Three Surveys" Pakistan Development Review (forthcoming).

4. Anawarul Hoque, Poverty and Fertility: A Framework for Analysis of Linkages, Monograph Series on Global Development No. 1984-20, World Academy for Development and Cooperation, College Park, Maryland, 1985.

5. S.I. Hossain "Interrelations between Family Size, Child Education and Health: Evidence from a Developing Country", Economic Development and Cultural Change (forthcoming). [This is a revised version of the paper, "Child Quality Trade Off: Evidence from a Developing Child"]

In addition to these publications (and one Bank staff working paper), before its termination the project managed to clean a major part of the data set and sent a computer tape to the BIDS for analysis. In response to requests, copies of the draft papers, especially the survey paper and the 1982 descriptive report, were given to the Bangladesh Programs Division and PHN Operational Division for their use.

Thus, even though the project admittedly fell far short of the expected outcome because of unusual circumstances, it cannot be regarded as a total loss. With the benefit of hindsight, you observed in your draft summary that the project could have been terminated much earlier to save resources. Aside from the actual positive outcomes, actual savings might have been insignificant, because most researchers

working on the project were already hired on contracts that could not be terminated unilaterally.

Comments on the Reviews

The reviews are thorough and competently done. However, the reviewers have not taken fully into account the special circumstances of the project, and unfortunately even reviewed an early draft of a paper that was also reviewed. The reviewers also did not seem to know that some papers were meant as input into a larger research report, and therefore the data sources were not fully recorded.

The attached table records my response to the reviews of individual papers. To sum up, the two reviewers liked some papers and recommended that those could be published after some editing. As to most of the papers, however, they pointed out some flaws, the bulk of which can be corrected by further explanation, revision or editing. The most serious methodological objection raised by one of the reviewers was that both proximate (biological) and socioeconomic determinants were used in the same equation when in fact socioeconomic variables must act through the proximate determinants. However, as the reviewer himself notes, the use of proximate and socioeconomic variables in the same equation is not uncommon in studies of fertility determinants. The use of the recursive model is especially necessary if the objective is to trace the influence of socioeconomic variables through the biological variables. If the purpose is to assess their independent influence on the dependent variable, use of these variable in the same equation is not inappropriate. Moreover, again as the reviewer himself notes, the papers often used both bivariate and multivariate analyses, and the bivariate analyses were carried out by two-way and three-way tables, the results of which are still valid. Some methodological objections to some papers - poor choice of variables, lack of age standardization, non comparability of data from surveys and so on -- could be either corrected or explained further for the reader. The papers, where such flaws are pointed out, obviously would have needed further work. In some cases, however, that work has already been done by the researchers before the papers were published (see the attached table). It should also be noted that the two reviewers differed markedly in their evaluation of some papers (as also noted in the attached table).

Comments and Suggestions on the Draft Summary

I find the draft summary somewhat more negative than the reviewers' evaluations. For example, both reviewers identified some papers (although different ones) as publishable, and pointed to parts of analysis as useful and significant, whereas the summary concludes that none of the papers is methodologically sound. While the reviewers make some valid (and useful) criticisms, these do not nullify all the results, as the draft summary conveys. In my view, some of the results of the research (outlined in Annex 2) that emerge

from the papers are still valid, even in the face of the methodological issues highlighted by the reviewers.

Let me offer my comments on the draft summary by section,

Section A

Paragraph 1 No comment.

Paragraph 2 After the first sentence, the unusual circumstances of the project need to be elaborated further, especially the fact that the project had to be terminated before the draft papers could be put into final shape.

The draft needs to be revised to reflect that some papers have either been published or accepted for publication. Further, the reviewers themselves noted that some papers were close to publishable shape with one paper already published as a Bank Staff Working Paper.

I suggest that the last sentence of the paragraph be revised to reflect that some of the papers (actually two, according to the second reviewer as shown in the attached table) have methodological problems that make the policy conclusions doubtful.

Section B

The same comment as above; in addition, the paragraph needs to be revised to show that the problems pertain to only some, and not all, the papers.

Section C

Paragraph 1 No comment.

Section D

Several papers have now been published, in addition to one Bank Staff Working Paper. These may now be listed.

Section E Part of the cost overrun was attributable to lack of any provision in the original project cost for funds to pay for internal computing costs (an usual practice before FY82). Additional funds were needed to pay for these. Furthermore, as noted in paragraph 8, if the project was abandoned soon after the DPS-CPS reorganization, the savings may not have been significant.

Section F

Paragraph 1 I agree that a case-by-case review should have been done of the research projects whose principal managers were transferred during the reorganization. However, such a review would have to have considered the sunk cost and obligations already incurred and to have found a way to save as much as possible of the project.

Paragraph 2 I think a review process is already in place for monitoring the performance ongoing research projects. The important consideration is what special procedures there should be in the case of special circumstances (noted above). It is necessary to consider also the inevitable costs of a major reorganization such as the one in 1982.

cc: Mr. D. Lal, Mrs. A. Plesch, VPERS
Mr. K. C. Zachariah, PHNPR

Evaluation of RPO/rrf4

Table 1:
COMMENTS ON REVIEWERS' EVALUATION

Name of the Paper: POPULATION AND FAMILY PLANNING BANGALDESH
A Summary of the Research

Major Points by Reviewers	Comments
Reviewer 1	"The paper provides an excellent starting ground for the project. It is also well written and very readable."
Reviewer 2	Did not review.

Name of the Paper: THE ANALYSIS OF FERTILITY AND FAMILY PLANNING DETERMINANTS IN RURAL BANGALDESH

Major Points by Reviewers	Comments
Reviewer 1	
The paper is poorly conceived. The empirical work is simplistic, and no attempt is made to do multivariate analysis.	The reviewer missed the point, that this paper was not meant to be an independent paper. It was a descriptive introduction to the data sets and presented some basic description and bivariate tables. The paper notes directions for further work, as was done in other papers.
Reviewer 2	
"It is admirable that the author prepared this descriptive report. Such descriptions are frequently missing from analytical reports."	The evaluation of this paper by Reviewer 2 is strikingly different from that of Reviewer 1. Reviewer 2 takes a constructive approach, values the descriptive nature of the paper and makes good suggestions for the revision.
However, the analysis of fertility correlates is flawed by a lack of age adjustment of the fertility vaiable.	

Table 1 Cont'd

Name of the Paper: POVERTY AND FERTILITY: HOW ARE THEY RELATED

Major Points by Reviewers	Comments
Reviewer 1	
There is occasional confusion between a determinant and an indicator of poverty.	This point is well-taken. The confusion was corrected in the published version.
The section preceding the empirical part of the paper should be reorganized and rewritten. An alternative and simpler analytical diagram is suggested.	
Several shortcomings of the empirical section are pointed out: first, the sources and the nature of the data, second, clarifications are sought and modifications suggested on the index of socioeconomic status; third, the specification of the variables in testing one of the hypotheses is considered to be erroneous. The empirical part of the paper needs considerable further work, especially to translate the framework proposed in the paper into a cohesive empirical model.	The sources and the nature of the data were not recorded because they were described elsewhere (see the discussion on the descriptive paper, "Analysis of Fertility and Family Planning Determinants"). The components of the socioeconomic indices are explained in Table 11. However, further explanation and justification would have been desirable. As the paper explains, the authors did not want to use a complicated simultaneous model, but instead wanted extract some simple hypotheses about poverty-fertility relationships for empirical testing. Further work is desirable.
Reviewer 2	
The first part of the paper is well-written.	
The empirical part is flawed, especially in terms of: (a) not adjusting for age, (b) not precisely defining income and (c) not clearly presenting the results in hypotheses closely related to each other.	The suggestions for improvement are helpful.

Name of the Paper: FERTILITY, CONTRACEPTIVE, USE AND SOCIOECONOMIC CONTEXT

Major Points by Reviewers	Comments
Reviewer 1	
This rough draft still needs: i) further discussion of patterns emerging in the tables; and ii) extension of regression to include other variables and the use of a simultaneous equation model to take care of the multi-collinearity problem.	The revised version of the paper that has now been published extends the discussions. Further extensions of the regression have not been done, but the results already obtained are still valid. The multi-collinearity problem is not particularly serious here.
Revewer 2	
Regression equations include both 'proximate' and 'socio-economic variables'. They should be separated and used in sets of recursive equations. The bivariate analysis, however, is unflawed.	It is not uncommon in studies of fertility determinants to include both "proximate" and socioeconomic variables in a single regression equation. Admittedly, as with recent studies, use of recursive equations in a Bongaarts framework can be an improvement, if the purpose is to trace the impact of socioeconomic variables through proximate (biological) factors. If the purpose is to weigh generally the impact of biological vs. socioeconomic factors, single equation regressions can be valid.
The reviewer points out some confusion and seeks clarification such as the homogeneity conclusion is not being consistent with variation in some indicators, and birth intervals used are unequal and its basis not stated and so on.	These points are well-taken. Some of them have already been addressed in the published version .

Table 1 Cont'd

Name of the Paper: ANALYSIS OF TIME USE DATA

Major Points by Reviewers	Comments
Reviewer 1	
The descriptive analyses are effective, but the section on multivariate analyses greatly needs improvement.	As I had mentioned in my memo of February 24, 1986, this paper was an initial draft needing much more work before it could be reviewed.
Definitions of high, medium and low income are lacking.	Since the definitions are given elsewhere, there were not repeated in the draft, which was intended to be a part of an overall research paper, and not a paper by itself.
The logic of the specifications of some of the regression equations is questioned. For example, "what does it mean to find that the time spent for homestead activities or market work is associated positively or negatively with contraceptive use, or vice-versa?"	The logic is that women who work mostly outside home will be more motivated to use contraceptives than will women doing mostly household work. Child care activities are more compatible with household activities.
Reviewer 2	
"Interesting data is presented ..., but the analysis of bivariate data and its discussion are confused and poorly presented."	As mentioned, this paper can use a good deal more work.
The multivariate analysis is interesting, but the definition of certain variables is not clear, and a simultaneity problem vitiates the results.	

Name of the Paper: CHILD QUALITY - QUANTITY TRADE OFF: EVIDENCE FROM A DEVELOPING COUNTRY

Major Points by Reviewers	Comments
Reviewer 1	
The paper is well thought out and contributes to improving the understanding of household economics in Bangladesh.	
The methodology of the paper is sound, but the paper needs editing.	
Review 2	
The paper is in a draft form and some tables and footnotes are missing.	This oversight is regretted.
The reviewer raises several specific methodological questions or requests clarifications such as: why 'contraceptive used' is included in the fertility equation as exogenous and why detailed occupations are used in the mortality equation and not in others.	The comments and questions are too specific. The 'contraceptive used' variable was incorporated as an availability measure. Some of the methodological issues raised were addressed in a revised version, that has been accepted for publication.

Name of the Paper: CHILD QUALITY-QUANTITY TRADE OFFS: EVIDENCE FROM BANGLADESH

Major Points by Reviewers	Comments
Reviewer 1	
Did not review it.	
Reviewer 2	
The logic is flawed and no detailed discussion is presented.	As mentioned in my memo of February 24, 1986, this paper is merely an earlier version of later paper on the same topic and should not have been sent out for review.

Name of the Paper: INFANT MORTALITY IN BANGLADESH 1959-1976

Major Points by Reviewers	Comments
Reviewer 1	
Did not review it.	
Reviewer 2	
This is a good paper and for the most part well-explained.	A slightly revised and edited version of the paper has been published.

Name of the Paper: TRENDS AND DIFFERENTIALS IN KNOWLEDGE, EVER USE, CURRENT USE, AND FUTURE INTENDED USE OF CONTRACEPTIVES IN RURAL BANGLADESH

Major Points by Reviewers	Comments
Reviewer 1	
Did not review it.	
Reviewer 2	
This paper is good and informative. However, it has a few problems such as: (i) only rural samples from the surveys should have been taken for comparability; (ii) the lack of conceptual model leads to an ad hoc collection of socioeconomic and proximate (biological) variables as explanatory variables.	This paper was revised and has now been accepted for publication in Pakistan Development Review.

Table 1 Cont'd

OVERVIEW

Major Points by Reviewers	Comments
Reviewer 1	
The papers are potentially important contributions, but most of the papers are rough and need substantial further work.	This is consistent with my memo of February 24, 1986, which records the special circumstances under which project was terminated and the papers were mostly preliminary drafts. Since then some papers were further worked on by individual researches using their own time and published.
Policy conclusions are difficult to make because the papers are rough drafts and revisions of methodology and analysis are needed first.	Although there is ample room for improvement in methodology and analysis, the papers in their present status do offer some policy recommendations as recorded in the completion report and outlined in Annex I.
The reviewer recognizes that lack of community data was a serious constraint to the analysis.	
Reviewer 2	
Many of the papers have flaws arising from methodological errors and hasty writing. He mentions several methodological problems: (i) Data from several surveys were not strictly comparable. (ii) Choice of variables is sometimes poor. (iii) Age standardization of some variables was not done. (iv) Both proximate and socioeconomic determinants	The use of rural samples from surveys using both rural and urban samples was done clearly in some of the papers where the distinction is critical. The rural-urban difference in Bangladesh in some of the variables is not significant (as seen in the description of data), so merging of the samples will not vitiate the results. Furthermore, revisions were also made in subsequently published versions of the paper. In paper by paper reviews certain problems in choice of variables are mentioned, but that is largely a matter

Table 1 Cont'd

of fertility are used in the same equations when in fact socioeconomic variables must act through the proximate determinant.	researcher's preference, but as noted in paper by paper coments, the choice could perhaps be better only in some cases.
(v) Logit equations have been used while probit estimation would have been better.	Age standardization, a useful demographic technique, would have been appropriate in some cases, but the influence of age can also be neutralized by other techniques such as regression.
	As noted in the case of specific papers, the use of Bongaarts framework -- tracing the impact of socioeconomic variables through proximate determinants -- would have been useful in certain cases, but not all. However, as the reviewer himself notes, use of proximate (biological) and socioecnomic variables in the same equation is not uncommon.

Review paper/rrf4
April 27, 1987

Annex I
Major Results of RPO 672-60

The findings on poverty and fertility linkages generally support hypotheses, such as:

- 0 Among the poor, fertility largely follows a natural fertility regime that allows the maximum births biologically possible;

- 0 Early marriage predominates among the poor;

- 0 High fertility among the poor causes a deterioration in the nutritional status of mothers and also adversely affects children's health and nutrition.

Some of the results derived from the project, however, contradict conventional wisdom. One is the absence of systematic variations in family size based on income. However, this point does not nullify the relationship between poverty and fertility, because actual fertility is the outcome of forces affecting the demand for and supply of children. Poverty can influence these factors in different ways at different levels of income. At an extremely low level of income, the demand for children may be high, but the supply side is constrained. Thus, although the relations between the forces of poverty and fertility may be strong, the fertility outcome may not vary across income classes because of the opposing influences working through the demand and supply of children.

Another interesting result of the child quality-quantity study which counters the conventional wisdom of a trade-off between those two elements. Child quantity has turned out to be an input into child quality reflecting no apparent trade-offs. This finding points to the economic value of child labor in Bangladesh. Parent will release younger children for schooling after attaining a certain number of children.

On the differential in fertility, the results show that there is a small variation in current fertility among socioeconomic groups. As this variation has come about recently, cumulative fertility -- measured by children-ever-born -- does not show any variation across socioeconomic groups.

On the determinants of the differential in fertility, supply factors such as breast feeding, interruption of postpartum amenorrhea via child and infant mortality and secondary sterility (reflected by the age of women) still dominate the determination of fertility patterns in Bangladesh. The results indicate only limited evidence that socioeconomic variables such as the husband or wife's education or landholding cause differences in fertility. It is possible that the effects of supply factors on fertility are counter balanced by

socio- economic status, producing no major differences in fertility among socioeconomic groups.

As to the regulation of fertility, no clear trend has emerged. However, contraceptive use is associated with a slight prolongation of the last closed birth interval, suggesting some role of contraceptive use in depressing fertility from rising still higher because of improved health and the relaxation of traditional restraints such as prolonged lactation or post-partum abstinence. Contraceptive use is also positively related with parity, indicating the role of economic pressure at high parity rather than perhaps the effect of modern values on fertility control. Although it appears that the rate of family planning acceptors has increased (from 6.0 percent to 19.3 percent) over the period 1969-77, the program has not yet been able to create a substantial decline in fertility. The fertility norm has not changed radically: the average ideal family size declined by only one child, i.e., from 4.4 to 3.3 children.

OFFICE MEMORANDUM

TO: J. Duloy

DATE: May 27, 1982

FROM: R. Faruqee and J. Warford

SUBJECT: Arrangements for the Completion of the Research Projects under the Supervision of Rashid Faruqee

Rashid Faruqee was the principal supervisor of the following Research Committee-financed research projects:

RPO 671-38	Narangwal Population and Nutrition Project;
RPO 672-23	Policy Analysis of Fertility Behavior in Bangladesh;
RPO 672-023	Narangwal Population Phase II;
RPO 672-35	Policy Analysis of Fertility and Family Planning in Kenya;
RPO 672-60	Determinants of Fertility and Their Linkages with Poverty in Rural Bangladesh.

These projects are in various stages of completion. With the DPS-CPS reorganizaton and the impending transfer of Faruqee to WAI, the question of responsibility for completing these projects arises. This note describes the progress of each of these and arrangements for their completion.

RPO 671-38 and RPO 672-23

These projects have been completed. Faruqee will be responsible for writing the completion report and answer any questions which the Research Committe may have. PHNPU will not be responsible for any aspect of these projects.

RPO 672-02, RPO 672-35 and RPO 672-60

Faruqee will prepare the annual progress reports of these three ongoing projects for the Research Committee. These reports, due end FY82, will include details of expenses incurred and commitments for the next FY, and will constitute the basis for the transfer of the projects to PHN. Details of the way in which these projects will be handled follow below:

RPO 672-02 (Narangal Population Phase II)

This is a collaborative research project with Johns Hopkins University. The purpose of the second phase is to extend population analysis of Phase I in some specific areas. After some dalay caused by the departure of some key personnel at Johns Hopkins, the data work of the second phase is now complete. The analysis will be done by the Johns Hopkins team and is expected to be completed by December 1982. In PHN, Zachariah will be

responsible for supervising the project. However, Faruqee will be available for consultation, especially in matters related to payment to the Johns. Hopkins under this project.

Under Phase I of the Narangwal research project, two research monographs were prepared. These are now at different stages of publication, in addition to a series of articles published, or forthcoming. IPA suggested that an overview book on Narangwal, written for the general audience and incorporating findings of Phase II, would be a useful publication in addition to the monographs. The Narangwal team at Johns Hopkins enthusiastically bought the idea. After Faruqee's departure, Ross-Larson, a consultant working in the Bank as a writer and editor and who edited the population monograph, will be responsible to work with the Johns Hopkins team to prepare the overview book. Ross-Larson's fees would be paid from the second phase project. IPA will be responsible for reviewing the book for publication.

RPO 672-35 (Policy Analysis of Fertility and Family Planning in Kenya)

The purpose of this research project is to follow up the Bank study, Kenya: Population and Development, with the analysis of recent demographic data (KFS and 1979 census), and family planning client data, focusing on two areas of population research: (i) determinants of fertility, and (ii) correlates of family planning acceptance, and continuation.

For (i), some analysis of KFS data has been done in the Bank; Kenya researchers had initiated fertility analysis using other surveys of CBS, the results of which would be of value to the project. For (ii), some work has been done on KFS data, but progress has been slow in analyzing the family planning client data. The data set was to be processed by CBS with the help of MOH, Kenya, but its current status is not known, although the processing was expected to be completed some time ago. Faruqee's forthcoming visit to Nairobi will ascertain the status of family planning data, as well as obtaining results of fertility analysis in Nairobi. The results will be used to complement the work done here. This will complete the fertility analysis for the project. Faruqee will also make necessary arrangements for the processing, the analysis of family planning client data in Nairobi, and if this is not possible, try to bring the data tape to Washington for analysis in the Bank.

Ed Brown, who has been working as a researcher on the project, but is shortly to receive his Ph.D. in demography from the Unniversity of Pennsylvania, is carrying out the analysis. He will draft the final report under the general supervision of Zachariah. Brown's present term finishes in August. Since the work will not be finished by August, he will have to be extended up to June 1983. The expected completion of the project is June 1983. Faruqee will be available for consultations for all matters relating to the project.

RPO 672-60 (Determinants of Fertility and Their Linkages with Poverty in Rural Bangladesh).

This project involves collaboration with the Bangladesh Institute of Development Studies (BIDS) in the analysis of a large body of data on the fertility and socioeconomic characteristics of households in Bangladesh. The

data were collected with the IDA-supported first population project in Bangladesh and were largely processed under a research application project (672-23).

The large body of data that the project will analyze were collected by BIDS in four phases of household surveys. Except for the fourth phase, which collected longitudinal information of a subsample of the original sample, all the data have been processed, cleaned and computerized in our system. M.R. Khan of BIDS and two programmers helped to do this. A master file has been created and tables have been produced according to a cross-tabulation plan.

A team has now been formed to complete the work of the project by the end of 1982 with the following members: Amin, a consultant, will be the overall coordinator; Kan, a temporary research assistant who helped to process the data, will do the programming; Alvi and Yinger, Ph.D students from the Johns Hopkins University, will assist with research during the summer.* The team will work under the overall supervision of Zachariah. Faruqee will be available for consultation.

As required by the Research Committee, a working group of national planners, administrators and researchers was formed in Bangladesh to guide this project. This group will be requested to review the draft reports of the project and to disseminate the research findings.

The bulk of the analysis of the project is expected to be finished by December, 1982, but the review of results by national working group and follow-up work may take another four to six months.

General

Although Zachariah will assume the bureaucratic responsibility of these ongoing projects on behalf of PHNPU, Faruqee will advise him on all aspects of the projects, including the question of authorship. Faruqee will be a co-author of the research outputs. PHNPU will review all the research outputs from the projects and will also arrange for their dissemination. However, the senior Research Adviser, ERS, and the Research Adviser, CPD (Mr Selowsky), are requested to pay particularly close attention to progress reports submitted for these three projects and to participate, as requested, relatively heavily in the review process, since the PHN Department's ability to manage the projects is severely hampered by staff constraints.

c.c. and cleared with T. King, K.C. Zachariah

c.c. Messrs. Stoujesdijk, Evans, North, Selowsky

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* Amin has been hired on a part-time basis up to September 1982. Kan's term finishes on June 30, 1983, and Alvi and Yinger are hired only for the period June 82-August 82.

Mr. Zachariah

The World Bank
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
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File

October 15, 1986

Mr. Richard Sturgis
Director
Demographic Data for Development
Westinghouse
Box 866
Columbia, Maryland 21044

Dear Dick:

Nigeria: Possible Bank Support for Printing NDS Reports

By the time you receive this letter, I shall be back in Nigeria once again, but I want to inform you about several developments that have occurred recently. As promised, I followed up on the August meetings with Messrs. Daramola and Ogunlade and with you and Shea Rutstein to obtain agreement in principle to the Federal Government's using Bank funds for printing results of the National Demographic Survey (NDS). During the recent visit to Washington of the Bank's Resident Representative to Nigeria, it was agreed that the Bank would not object to the Government's using funds from the Technical Assistance Project (Loan No. 2480-UNI) for this purpose.

The responsibility for seeking the Government's agreement rests now with the National Population Bureau. During this current mission, we shall inform Mr. Daramola and indicate whom he should contact in this regard.

You planned to send me a budget for printing and shipping the reports and for associated dissemination conferences. As of early October, this had not yet reached me. Do please send me a copy. In addition, if the result of detailed costing varies greatly from the original estimate that you gave me in August, do please phone my office and ask my secretary to telex the new figure to me in Lagos.

My colleagues have examined the draft table of contents for the state-level analysis and have no further comments. You had taken note of the order in which it would be helpful to us to have the results of the state analysis, beginning with Imo. This still holds, and it would be extremely valuable for an appraisal report that we must start drafting at the end of this month to have the NDS results for Imo State. Serious project development is now definitely getting under way in Ogun and Oyo States, as well. Many thanks!

Sincerely yours,

R. Rad

David Radel
Senior Project Officer
Population, Health and Nutrition Department

cc: Mr. Brown (in Lagos), Ms. Deen, Ms. Domingo, Mr. Khan, Mr. Over, Dr. Scheyer, Ms. Sirur, PHND2; Mr. Zachariah, Ms. Hill, PHNPR; Ms. Mehra, Ms. O'Connor, WAlNI; Mr. Innes, Mrs. Mojidi, RMN (Lagos)

DF: Nigeria--(a) National Population; (b) Imo H&P

DRadel:pl
(b: sturgis)

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

File

March 16, 1987

Dr. K.C. Zachariah
Senior Demographer
World Bank
1818 H Street, N.W.
Room N-448
Washington, D.C. 20433

Dear Dr. Zachariah:

The next meeting of the Interagency Committee on Census Coordination will take place on Tuesday, March 24 at 1:30 p.m. The meeting will be hosted by The World Bank in Room N550, on the fifth floor of the "N" Building, northeast corner of 19th and Pennsylvania Avenues, N.W. Subjects for discussion will include updates of the status of census activities in Burundi, Chad, Kenya, Mali, Mozambique, Niger, Rwanda and Tanzania. The draft outline of the second committee report, on inter-censal activities, will also be discussed.

I hope to see you on March 24. Please contact me if you have questions about the meeting, or suggestions for additions to the agenda. I can be reached at (703) 235-9677.

Sincerely,

John G. Crowley
Policy Development Division
Office of Population

UNITED NATIONS NATIONS UNIES

POSTAL ADDRESS—ADRESSE POSTALE: UNITED NATIONS, N.Y. 10017
CABLE ADDRESS—ADRESSE TELEGRAPHIQUE: UNATIONS NEWYORK

File

REFERENCE:

22 October 1986

Dear Mr. Zachariah,

It was a good discussion that we have had in Washington, D. C. on 14 October concerning the issue of the "five billion population". We now shall respond to any inquiry on this issue by saying that "based on the current projections, some time between April and July of 1987 the world population may reach five billion, although such a total may be reached before April or after July". We should emphasize that the rate of growth of world population is declining but the annual absolute increase is still sizable. When discussing the five billion issue, it is important for us to provide supporting statistics as well as attention to other related issues of the world population growth such as the aging and juvenation of population in different parts of the world.

I shall keep you informed of the progress of our 1986-1987 revision of world population estimates and projections.

With best regards,

Sincerely yours,

Y. C. Yu
Chief
Estimates and Projections Section
Population Division, DIESA

Mr. K. C. Zachariah
Senior Demographer
Population, Health and Nutrition
Department
Policy and Research Unit
The World Bank
1818 H Street, N. W.
Washington, D. C. 20433

Ms. Zachariah
file

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION
OFFICE MEMORANDUM

DATE: 15 August 1986

TO: Ms. Suman Mehra, Acting Chief, WA1NI

FROM: David J. Radel, PHND2

EXTENSION: 61601

SUBJECT: NIGERIA: Proposed Use of Technical Assistance Project Funds for Publication of National Demographic Sample Survey

1. As all of us in the Bank who work on Nigeria are painfully aware, one serious constraint for planning activities in nearly every sector is the almost complete absence of basic demographic statistics. A reasonably good data set has now been analyzed and a modest amount of funding is required by the National Population Bureau (NPB) to publish it, including a series of 19 state-specific reports. These data would be extremely valuable to the Government for planning, particularly in doing detailed preparation of Fifth Plan projects. One possible source of support for publishing these data is the Bank's Technical Assistance Project with Planning and Finance. PHN urges your Division to help NPB make the case for access to project funds for this purpose. Perhaps you have other suggestions.

2. In 1980-81, the previous Government carried out the National Demographic Sample Survey. With a sample size of nearly one million, for all intents and purposes this was a sample census. For some years, work on processing the data was very slow, and then last year, due to the new Government's strong interest in rational planning and growing concern about population matters, the decision was made to seek technical support in processing the results. Such support is being supplied by the Demographic Data for Decision Project at Westinghouse Health Systems, Columbia, Maryland.

2. While Westinghous has funds to support data analysis and NPB staff will carry out the report writing, approximately $200,000 is required to publish the results and to carry out utilization conferences with key user groups. The National Population Bureau and Westinghouse have turned to PHN for help in this regard. This would fit nicely into the National Population Project, but to do so would badly delay publication of the reports. The current timetable calls for the following reports to be completed by April 1987: (a) 19 state-specific reports; (b) a detailed national report; and (c) a popularized national summary.

3. Westinghouse will provide a detailed budget within a week or two, but in the meantime, Mr. Olu Daramola, Ag. Director, NPB has returned to Lagos and will be approaching John Innes to seek his support and to obtain the names of the appropriate people to approach in Planning and Finance. For that reason, I am copying this memo to John. For your and his background, I am enclosing a draft list of the tables that will appear in the state-level reports. Both NPB and Westinghous have asked the Bank to

comment on these particular tablulations and to indicate if we recommend they prepare any others.

4. If you and I are unable to go further with this in the coming week, would you kindly pick up on it with Ed Brown, who will be back on 22 August. Many thanks!

cc: Mr. Innes, RMN (Lagos); Mr. Brown (o/r), Mr. Over, PHND2; Ms. Hill (o/r), Mr. Zachariah, PHNPR; Ms. Silvera, Ms. O'Connor (o/r), WA1NI

DF: Nigeria--General

DRadel

UNITED NATIONS NATIONS UNIES

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CABLE ADDRESS—ADRESSE TELEGRAPHIQUE: UNATIONS NEWYORK

Copy to:
(1) My Vu
(2) R. Bulatao
(3) K. Zachariah

REFERENCE:

10 October 1986

Dear Mr. Zachariah,

Enclosed herewith please find a copy of the provisional agenda for the fourteenth session of the Ad Hoc Interagency Working Group on Demographic Estimates and Projections that will be held in New York on 3-5 November 1986. The provisional agenda was prepared on the basis of recommendations made at the thirteenth session of the Group and suggestions we recently received from some participating organizations.

For discussion purposes, I would like to request you to prepare written statements on the following issue for presentation at the forthcoming session and inclusion in the draft report of the Working Group:

my Vu to prepare this

- Your organization's recent activities and plans in demographic estimates and projections;
- Differences in population estimates and projections between the World Bank and the United Nations.

Zach.

Please come at 10:00 a.m. on 3 November 1986 to Room DC2-1934, DC2-Building, Two United Nations Plaza, to pick up your grounds pass to the United Nations buildings during the session. The meeting will start at 10:30 a.m. on that day. You may wish to telephone Mr. Y. C. Yu (212, 754-3217) or Mr. Shiro Horiuchi (212, 754-3221) if you have any questions about the meeting.

I look forward to seeing you at the session.

Sincerely yours,

J.C. Chasteland

Jean-Claude Chasteland
Director
Population Division/IESA

Mr. K.C. Zachariah
Senior Demographer
Population, Health and Nutrition Department
Policy and Research Unit
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

AD HOC INTERAGENCY WORKING GROUP ON
DEMOGRAPHIC ESTIMATES AND PROJECTIONS
New York, 3-5 November 1986

10 October 1986

Provisional Agenda

1. Opening of the fourteenth session
2. Election of officers
3. Adoption of the agenda
4. Recent activities and plans
   - (a) Regional commissions
   - (b) Population Division/IESA
   - (c) Specialized agencies
5. Co-ordination for the 1986 round of demographic estimates and projections
6. Review of studies for further promotion of co-ordination:
   - (a) Comparison of methodology of sectoral projections
   - (b) Comparison of population estimates and projections of the United Nations and the World Bank
   - (c) Consistency among demographic projections prepared in the United Natons system (including evaluation of school enrolment projections)
   - (d) Estimates and projections for countries with population under 300,000
   - (e) Estimates and projections of infant and child mortality
7. The world comprehensive demographic projections
8. Other items (including the provisional agenda for the fifteenth session)
9. Adoption of the report

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

File

DATE : May 8, 1986

TO : John O'Connor, Chief, EPDCA

FROM : K.C. Zachariah, PHNPR

EXTENSION : 61579

SUBJECT : Changes in WDI Indicators and associated changes in the historical data.

1. In the attached xeroxed tables, we have indicated the changes that should be made in the WDI tables.

2. The infant mortality and child death rates for Madagascar for 1984 are based on a recent demographic study done by PHN Division I. The rate for 1965 was from the UN, and hence incompatible with the 1984 data: the rates for 1965 therefore are changed in Table 27 to "not available."

3. Life expectancy at birth, 1984, for both sexes, given in Table 1, were not provided by PHNPR. They were computed by EPD, using male and female life expectancy data provided by PHNPR, and a sex ratio at birth of 1.05. Bruce Fuller was informed that because the sex-ratio at birth for Africans is 1.03, it is advisable to recalculate the life expectancy at birth for the African countries (including North Africa).

4. Bruce was also informed that EPD should check the population momentum figures in Table 26, since these runs were done by EPD as part of its 150 hours of assistance to PHNPR.

5. As the new census results for Burkino Faso became available only a few days ago we have not been able to complete the analysis for this country. The data to be included in WDI tables for Burkino Faso will be communicated to you on Monday. Preliminary analysis indicates that we will have to reduce migration out of Burkino. As a result, the data for Ivory Coast may have to be changed. I will give the results of our analysis on Monday.

6. On related issues, in two memos dated April 29, 1986 and May 2, 1986, questions were raised regarding jumps or inconsistencies in the historical population data of some countries. These are addressed below:

   China; 1961-62 : population decline is due to famine.

   Malta; 1960-73, 1981-82 : the historical data are from government sources; it is assumed that the blips in total population are

due to migration.

Portugal; 1970-73 : due to migration.

Mexico; 1976-78 : change the population data as follows:

1976	61897
1977	63691
1978	65538
1979	67438
1980	69393

Pakistan; change the population data as follows:

1980	82740
1981	85057
1982	87429
1983	89866
1984	92361
1985	94933

Population projections for Pakistan were re-run following clarification of confusion surrounding base data with Pakistan Programs. All relevant figures for Pakistan have been adjusted in the WDI tables.

Ethiopia; growth rate of 0.2% for 1984-85 is correct; the drop is due to famine.

Albania; Population projections were re-run to get a 1984-85 growth rate of 2.1%. The new 1985 total is 2964. All relevant figures for Albania have been changed in the WDI tables.

Cuba; change the population data as follows:

1980	9718
1981	9717
1982	9782
1983	9782
1984	9859

Dominican Republic; change the population totals as follows:

1980	5558
1981	5688
1982	5823
1983	5961
1984	6114

Qatar; change 1982-1983 totals as follows:

1982	273
1983	288

Jamaica; change the historical series from 1970-1984:

1970	1877
71	1961

72	1921
73	1941
74	1960
75	1979
76	1997
77	2015
78	2032
79	2049
80	2065
81	2081
82	2120
83	2165
84	2196

c.c. B. Fuller, EPDCA
Sulekha Patel
My VU
Mahshid Shizari

Box A.1 Basic indicators for U.N. and World Bank member countries with populations of less than 1 million

U.N./World Bank member	Population (thousands) mid-1984	Area (thousands of square kilometers)	GNP per capita[a] Dollars 1984	GNP per capita[a] Average annual growth rate (percent) 1965-84[b]	Average annual rate of inflation (percent) 1965-73	Average annual rate of inflation (percent) 1973-84[c]	Life expectancy at birth (years) 1984
Guinea-Bissau	~~877~~ 870	36	190	..	..	9.1	38
Gambia, The	~~717~~ 718	11	260	1.0	3.0	10.4	~~41~~ 42
Cape Verde	~~321~~ 320	4	320	..	..	12.6	~~62~~ 64
Sao Tome and Principe	~~106~~ 105	1	330	/-1.6//	..	8.3	~~66~~ 64
Guyana	~~806~~ 785	215	590	0.5	4.3	7.8	~~69~~ 65
Swaziland	~~730~~ 731	17	790	4.1	4.3	/14.0//	54
St. Vincent and the Grenadines	~~104~~ 117	(.)	840	1.9	6.1	10.9	~~70~~ 69
Grenada	94	(.)	860	1.7	5.5	12.6	~~71~~ 68
Dominica	~~83~~ 77	1	1,010	0.3	6.1	13.2	~~74~~ 75
Belize	156	23	1,110	2.5	4.2	7.6	66
St. Lucia	~~126~~ 134	1	1,130	3.1	5.5	10.3	70
St. Christopher and Nevis	55	(.)	1,150	3.2	6.4	8.9	64
Fiji	686	18	1,810	3.1	5.6	9.0	65
Antigua and Barbuda	~~79~~ 78	(.)	1,860	-0.1	6.6	8.6	73
Malta	360	(.)	3,360	8.4	2.4	5.5	~~73~~ 72
Suriname	~~384~~ 383	163	3,510	4.2	..	9.6	66
Cyprus	654	9	3,590	5.4	1.6	10.4	74
Gabon	812	268	4,100	5.9	5.8	15.5	~~51~~ 50
Barbados	253	(.)	4,370	2.5	7.2	11.7	73
Bahamas	~~226~~ 229	14	6,690	-1.6	5.9	6.6	69
Bahrain	407	1	10,470	..	..	..	69
Iceland	239	103	11,020	2.6	15.1	47.4	77
Luxembourg	366	3	13,160	3.9	5.0	7.3	73
Qatar	~~292~~ 304	11	19,810	/-7.7//	..	..	72
/Brunei//	~~216~~ 218	6	..	..	..	..	74
/Comoros//	~~381~~ 382	2	..	..	..	..	54
/Djibouti//	351	22	..	..	..	..	48
/Equatorial Guinea//	366	28	..	..	3.6	..	44
/Maldives//	173	(.)	..	..	..	..	53
/Seychelles//	65	(.)	..	/3.5//	5.9	/14.8//	69
/Solomon Islands//	~~263~~ 259	28	..	1.9	4.8	10.1	~~57~~ 58
/Tonga//	106	1	..	/4.4//	..	/10.2//	~~63~~ 64
/Vanuatu//	~~131~~ 130	15	..	..	..	..	55
/Western Samoa//	~~163~~ 161	3	..	..	..	..	64-65

Note: Countries with italicized names are those for which no GNP per capita can be calculated.

a. See the technical notes. b. Because data for the entire period are not always available, figures in italics are for periods other than specified. c. Figures in italics are for 1973-83, not 1973-84.

Table 1. Basic indicators

	Population (millions) mid-1984	Area (thousands of square kilometers)	GNP per capita[a] Dollars 1984	GNP per capita[a] Average annual growth rate (percent) 1965-84[b]	Average annual rate of inflation[a] (percent) 1965-73	Average annual rate of inflation[a] (percent) 1973-84[c]	Life expectancy at birth (years) 1984
Low-income economies	2,390.3t	31,795t	260w	2.9w	1.6w	5.5w	60w
China and India	1,778.3t	12,849t	290w	3.3w	1.0w	4.0w	63w
Other low-income	612.0t	18,946t	190w	1.1w	4.8w	13.4w	52w
Sub-Saharan Africa	257.6t	15,646t	210w	0.2w	4.3w	17.5w	48w
[BT 1 Ethiopia	42.2	1,222	110	0.4	1.8	/4.4//	44 ET]
[BT 2 Bangladesh	98.1	144	130	0.6	7.3	9.9	50 ET]
[BT 3 Mali	7.3	1,240	140	1.1	7.6	10.4	46 ET]
[BT 4 Zaire	29.7	2,345	140	-1.0	18.7	/48.2//	51 ET]
[BT 5 Burkina Faso	6.6	274	160	1.2	2.6	10.6	45 ET]
[BT 6 Nepal	16.1	141	160	0.2	5.8	8.1	47 ET]
[BT 7 Burma	36.1	677	180	2.3	2.8	6.0	58 ET]
[BT 8 Malawi	6.8	118	180	1.7	4.5	9.4	45 ET]
[BT 9 Niger	6.2	1,267	190	-1.3	4.0	11.5	43 ET]
[BT 10 Tanzania	21.5	945	210	0.6	3.2	/11.5//	52 ET]
[BT 11 Burundi	4.6	28	220	1.9	2.9	12.2	48 ET]
[BT 12 Uganda	15.0	236	230	..	5.6	64.5	51 ET]
[BT 13 Togo	2.9	57	250	0.8	3.1	8.2	52 ET]
[BT 14 Central African Rep.	2.5	623	260	-0.1	3.0	13.8	49 ET]
[BT 15 India	749.2	3,288	260	1.6	6.3	7.8	56 ET]
[BT 16 Madagascar	9.9	587	260	-1.6	4.1	14.4	52 ET]
[BT 17 Somalia	5.2	638	260	..	3.8	20.2	46 ET]
[BT 18 Benin	3.9	113	270	1.0	3.6	10.8	49 ET]
[BT 19 Rwanda	5.8	26	280	2.3	7.7	10.5	47 ET]
[BT 20 China	1,029.2	9,561	310	4.5	-0.9	1.8	69 ET]
[BT 21 Kenya	19.6 ~~19.5~~	583	310	2.1	2.3	10.8	54 ET]
[BT 22 Sierra Leone	3.7	72	310	0.6	1.9	15.4	38 ET]
[BT 23 Haiti	5.4	28	320	1.0	4.0	7.9	55 ET]
[BT 24 Guinea	5.9	246	330	1.1	3.0	4.5	38 ET]
[BT 25 Ghana	12.3	239	350	-2.0	8.1	52.2	53 ET]
[BT 26 Sri Lanka	15.9	66	360	2.9	5.1	14.9	70 ET]
[BT 27 Sudan	21.3	2,506	360	1.2	7.2	19.3	48 ET]
[BT 28 Pakistan	~~93.9~~ 92.4	804	380	2.5	4.8	10.8	~~ET~~ 51
[BT 29 Senegal	6.4	196	380	-0.5	3.0	9.0	46 ET]
[BT 30 /Afghanistan//	17.6	648	..	..	3.8	..	~~ET~~
[BT 31 /Bhutan//	1.2	47	..	..	..	..	44 ET]
[BT 32 /Chad//	4.9	1,284	..	..	..	..	44 ET]
[BT 33 /Kampuchea, Dem.//	7.1	181	..	..	..	..	~~ET~~
[BT 34 /Lao PDR//	3.5	237	..	..	..	..	45 ET]
[BT 35 /Mozambique//	13.4	802	..	..	..	..	46 ET]
[BT 36 /Viet Nam//	60.1	330	..	..	..	..	65 ET]
Middle-income economies	1,187.8t	40,927t	1,250w	3.2w	5.5w	38.0w	61w
Oil exporters	556.1t	15,510t	1,000w	3.3w	4.9w	21.6w	58w
Oil importers	631.7t	25,417t	1,460w	3.3w	5.8w	44.5w	64w
Sub-Saharan Africa	148.4t	6,228t	680w	2.4w	4.9w	12.2w	50w
Lower middle-income	687.8	19,035	740	3.0	5.6	20.6	58
[BT 37 Mauritania	1.7	1,031	450	0.3	3.9	7.7	46 ET]
[BT 38 Liberia	2.1	111	470	0.5	1.5	6.7	50 ET]
[BT 39 Zambia	6.4	753	470	-1.3	5.8	10.4	52 ET]
[BT 40 Lesotho	1.5	30	530	6.2	4.4	/11.9//	54 ET]
[BT 41 Bolivia	6.2	1,099	540	0.2	7.5	54.5	53 ET]
[BT 42 Indonesia	158.9	1,919	540	4.9	63.0	17.4	55 ET]
[BT 43 Yemen Arab Rep.	7.8	195	550	/5.9//	..	12.6	45 ET]
[BT 44 Yemen, PDR	2.0	333	550	..	..	..	47 ET]
[BT 45 Cote d'Ivoire	9.9	322	610	0.2	4.1	11.7	52 ET]
[BT 46 Philippines	53.4	300	660	2.6	8.8	12.9	63 ET]
[BT 47 Morocco	21.4	447	670	2.7	2.0	8.3	59 ET]
[BT 48 Honduras	4.2	112	700	0.5	2.9	8.6	61 ET]
[BT 49 El Salvador	5.4	21	710	-0.6	1.6	11.3	65 ET]
[BT 50 Papua New Guinea	3.4	462	710	0.6	6.6	6.8	52 ET]
[BT 51 Egypt, Arab Rep.	45.9	1,001	720	4.3	2.6	13.1	60 ET]
[BT 52 Nigeria	96.5	924	730	2.8	10.3	13.0	50 ET]
[BT 53 Zimbabwe	8.1	391	760	1.5	1.1	11.4	57 ET]
[BT 54 Cameroon	9.9	475	800	2.9	5.8	12.8	54 ET]
[BT 55 Nicaragua	3.2	130	860	-2.0	3.4	17.2	60 ET]
[BT 56 Thailand	50.0	514	860	4.2	2.5	8.2	64 ET]
[BT 57 Botswana	1.1	60	960	8.5	4.4	9.8	58 ET]
[BT 58 Dominican Rep.	6.1	49	970	3.2	2.7	9.0	64 ET]
[BT 59 Peru	18.2	1,285	1,000	-0.1	10.1	56.7	59 ET]
[BT 60 Mauritius	1.0	2	1,090	2.7	5.6	12.7	66 ET]
[BT 61 Congo, People's Rep.	1.8	342	1,140	3.7	4.6	12.3	57 ET]
[BT 62 Ecuador	9.1	284	1,150	3.9	6.2	17.8	65 ET]
[BT 63 Jamaica	2.2	11	1,150	-0.7	5.9	16.6	73 ET]
[BT 64 Guatemala	7.7	109	1,160	1.9	1.9	9.4	60 ET]
[BT 65 Turkey	48.4	781	1,160	2.9	10.5	42.4	64 ET]

Note: For comparability and coverage, see the technical notes. For U.N. and World Bank member countries with populations of less than 1 million, see Box A.1.

	Population (millions) mid-1984	Area (thousands of square kilometers)	GNP per capita[a] Dollars 1984	GNP per capita[a] Average annual growth rate (percent) 1965-84[b]	Average annual rate of inflation[a] (percent) 1965-73	Average annual rate of inflation[a] (percent) 1973-84[c]	Life expectancy at birth (years) 1984
[BT 66 Costa Rica	2.5	51	1,190	1.7	4.7	24.1	[illegible]
[BT 67 Paraguay	3.3	407	1,240	4.4	4.3	12.9	[illegible]
[BT 68 Tunisia	[illegible]	164	1,270	4.4	3.3	9.9	[illegible]
[BT 69 Colombia	28.4	1,139	1,390	[illegible]	10.8	23.8	[illegible]
[BT 70 Syrian Arab Rep.	[illegible]	185	1,620	4.5	3.2	[illegible]	[illegible]
[BT 71 Angola	8.5	1,247	..	..	..	..	43 ET]
[BT 72 Cuba	~~10.?~~ 9.9	115	..	..	..	..	75 ET]
[BT 73 Korea, Dem. Rep.//	19.9	121	..	..	..	..	68 ET]
[BT 74 Lebanon	2.7	10	..	..	2.5	..	66 ET]
[BT 75 /Mongolia//	1.9	1,565	..	..	..	..	63 ET]
Upper middle-income	500.0t	21,893t	1,950w	3.5w	5.6w	44.0w	65w
[BT 76 Chile	11.8	757	1,700	-0.1	50.3	75.4	70 ET]
[BT 77 Jordan	3.4	98	1,710	/6.2//	..	9.6	64 ET]
[BT 78 Brazil	132.6	8,512	1,720	4.6	23.2	71.4	64 ET]
[BT 79 Portugal	10.2	92	1,970	3.5	4.9	20.5	74 ET]
[BT 80 Malaysia	15.3	330	1,980	4.5	1.2	6.2	69 ET]
[BT 81 Panama	2.1	77	1,980	2.5	2.4	6.7	71 ET]
[BT 82 Uruguay	3.0	176	1,980	1.8	51.7	50.0	73 ET]
[BT 83 Mexico	76.8	1,973	2,040	2.9	4.8	31.5	66 ET]
[BT 84 Korea, Rep. of	40.1	98	2,110	6.6	15.5	17.6	68 ET]
[BT 85 Yugoslavia	23.0	256	2,120	4.3	10.9	24.6	69 ET]
[BT 86 Argentina	30.1	2,767	2,230	-0.2	24.1	180.8	70 ET]
[BT 87 South Africa	31.6	1,221	2,340	1.4	6.0	13.2	54 ET]
[BT 88 Algeria	~~21.1~~ 21.2	2,382	2,410	3.6	3.8	12.2	60 ET]
[BT 89 Venezuela	16.8	912	3,410	0.9	3.3	11.7	69 ET]
[BT 90 Greece	9.9	132	3,770	3.8	4.4	17.3	75 ET]
[BT 91 Israel	4.2	21	5,060	2.7	8.2	84.4	75 ET]
[BT 92 Hong Kong	5.4	1	6,330	6.2	6.4	9.8	76 ET]
[BT 93 Trinidad and Tobago	1.2	5	7,150	3.3	5.7	/15.6//	69 ET]
[BT 94 Singapore	2.5	1	7,260	7.8	3.1	4.4	72 ET]
[BT 95 /Iran, Islamic Rep.//	43.8	1,648	..	..	..	..	61 ET]
[BT 96 /Iraq//	15.1	435	..	..	3.2	..	60 ET]
High-income oil exporters	18.6t	4,311t	11,250w	3.3w	6.1w	11.8w	62w
[BT 97 Oman	1.1	300	6,490	6.1	7.1	16.4	53 ET]
[BT 98 Libya	3.5	1,760	8,520	-1.1	9.4	10.8	59 ET]
[BT 99 Saudi Arabia	11.1	2,150	10,530	5.9	5.1	14.1	62 ET]
[BT 100 Kuwait	1.7	18	16,720	-0.1	4.6	9.2	72 ET]
[BT 101 United Arab Emirates	1.3	84	21,920	..	..	8.7	~~71~~ ET] 72
Industrial market economies	733.2t	30,935t	11,470w	2.4w	5.2w	7.9w	76w
[BT 102 Spain	38.7	505	4,440	2.7	7.0	16.4	77 ET]
[BT 103 Ireland	3.5	70	4,970	2.4	8.5	14.4	73 ET]
[BT 104 Italy	57.0	301	6,420	2.7	5.1	17.2	77 ET]
[BT 105 New Zealand	3.2	269	7,730	1.4	7.2	13.6	74 ET]
[BT 106 United Kingdom	56.4	245	8,570	1.6	6.2	13.8	74 ET]
[BT 107 Belgium	9.9	31	8,610	3.0	4.4	6.4	75 ET]
[BT 108 Austria	7.6	84	9,140	3.6	4.5	5.3	73 ET]
[BT 109 Netherlands	14.4	41	9,520	2.1	6.4	5.9	77 ET]
[BT 110 France	54.9	547	9,760	3.0	5.3	10.7	77 ET]
[BT 111 Japan	120.0	372	10,630	4.7	6.0	4.5	77 ET]
[BT 112 Finland	4.9	337	10,770	3.3	7.2	10.7	75 ET]
[BT 113 Germany, Fed. Rep.	61.2	249	11,130	2.7	4.7	4.1	75 ET]
[BT 114 Denmark	5.1	43	11,170	1.8	7.6	9.4	75 ET]
[BT 115 Australia	15.5	7,687	11,740	-0.2	5.7	10.4	76 ET]
[BT 116 Sweden	8.3	450	11,860	1.8	5.3	10.2	77 ET]
[BT 117 Canada	25.1	9,976	13,280	2.4	4.4	9.2	76 ET]
[BT 118 Norway	4.1	324	13,940	3.3	6.3	9.4	77 ET]
[BT 119 United States	237.0	9,363	15,390	1.7	4.7	7.4	76 ET]
[BT 120 Switzerland	6.4	41	16,330	1.4	5.5	3.9	77 ET]
East European nonmarket economies	389.2t	23,421t	..	..	..	..	68w
[BT 121 Hungary	10.7	93	2,100	6.2	2.6	4.3	70 ET]
[BT 122 /Albania//	2.9	29	..	..	..	..	~~69~~ ET] 71
[BT 123 /Bulgaria//	9.0	111	..	..	..	..	71 ET]
[BT 124 /Czechoslovakia//	15.5	128	..	..	..	..	70 ET]
[BT 125 /German Dem. Rep.//	16.7	108	..	..	..	..	71 ET]
[BT 126 /Poland//	36.9	313	..	..	..	..	71 ET]
[BT 127 /Romania//	~~22.6~~ 22.7	238	..	..	..	..	71 ET]
[BT 128 /USSR//	275.0	22,402	..	..	..	..	67 ET]

a. See the technical notes. b. Because data for the entire period are not always available, figures in italics are for periods other than that specified. c. Figures in italics are for 1973-83 not 1973-84.

Table 25. Population growth and projections

	Average annual growth of population (percent)			Population (millions)			Hypothetical size of stationary population (millions)	Assumed year of reaching net reproduction rate of 1	Population momentum 1985
	1965–73	1973–84	1980–2000	1984	1990[a]	2000[a]			
Low-income economies									
China and India									
Other low-income									
Sub-Saharan Africa									
[BT 1 Ethiopia	2.6	2.8	2.7	42	49	65	204	2040	1.9 ET]
[BT 2 Bangladesh	2.6	2.5	2.4	98	114	141	310	2030	1.9 ET]
[BT 3 Mali	2.6	2.6	2.6	7	9	11	36	2035	1.8 ET]
[BT 4 Zaire	2.4	3.0	3.2	30	36	47	130	2030	1.9 ET]
[BT 5 Burkina Faso	2.0	1.8	2.0	7	7	9	31	2040	1.6 ET]
[BT 6 Nepal	2.0	2.6	2.6	16	19	24	74	2040	1.8 ET]
[BT 7 Burma	2.3	2.0	2.1	36	41	49	87	2020	1.8 ET]
[BT 8 Malawi	2.8	3.1	3.2	7	8	11	38	2040	1.9 ET]
[BT 9 Niger	2.3	3.0	3.2	6	7	10	36	2040	1.9 ET]
[BT 10 Tanzania	3.2	3.4	3.5	21	27	37	123	2035	2.0 ET]
[BT 11 Burundi	1.4	2.2	3.0	5	5	7	24	2035	1.9 ET]
[BT 12 Uganda	3.6	3.2	3.3	15	18	26	84	2035	2.0 ET]
[BT 13 Togo	3.8	2.8	3.3	3	4	5	16	2035	2.0 ET]
[BT 14 Central African Rep.	1.6	2.3	2.8	3	3	4	12	2035	1.8 ET]
[BT 15 India	2.3	2.3	1.9	749	844	994	1,700	2010	1.7 ET]
[BT 16 Madagascar	2.4	2.8	3.1	10	12	16	48	2035	1.9 ET]
[BT 17 Somalia	3.5	2.8	3.0	5	6	8	30	2040	1.9 ET]
[BT 18 Benin	2.6	2.8	3.2	4	5	6	20	2035	2.0 ET]
[BT 19 Rwanda	3.1	3.3	3.6	6	7	10	40	2040	2.0 ET]
[BT 20 China	2.7	1.4	1.2	1,029	1,108	1,245	1,600	2000	1.6 ET]
[BT 21 Kenya	3.8	4.0	3.9	20	25	35	111	2030	2.1 ET]
[BT 22 Sierra Leone	1.7	2.1	2.4	4	4	5	17	2045	1.8 ET]
[BT 23 Haiti	1.5	1.7	1.8	5	6	7	14	2025	1.8 ET]
[BT 24 Guinea	1.8	2.0	2.1	6	7	8	24	2045	1.8 ET]
[BT 25 Ghana	2.2	2.6	3.5	12	15	20	54	2030	1.9 ET]
[BT 26 Sri Lanka	2.0	1.8	1.8	16	18	21	32	2005	1.7 ET]
[BT 27 Sudan	3.0	2.9	2.9	21	25	34	101	2035	1.9 ET]
[BT 28 Pakistan	3.1	~~2.9~~ 2.5	~~2.9~~	~~92~~	~~100~~ 108	~~145~~ 138	~~300~~ 353	2035	~~2.9~~ ET] 1.8
[BT 29 Senegal	2.4	2.8	2.9	6	8	10	30	2035	1.9 ET]
[BT 30 /Afghanistan//	2.3	2.6	2.3	18	20	25	75	2045	1.9 ET]
[BT 31 /Bhutan//	1.3	1.9	2.3	1	1	2	4	2040	1.8 ET]
[BT 32 /Chad//	1.9	2.1	2.5	5	6	7	22	2040	1.8 ET]
[BT 33 /Kampuchea, Dem.//	1.8	..	..	..	..	..	..	..	.. ET]
[BT 34 /Lao PDR//	1.4	1.6	2.6	4	4	5	17	2040	1.8 ET]
[BT 35 /Mozambique//	2.3	2.6	3.0	13	16	21	67	2035	1.9 ET]
[BT 36 /Viet Nam//	3.1	2.6	2.5	60	70	88	167	2015	1.9 ET]
Middle-income economies									
Oil exporters									
Oil importers									
Sub-Saharan Africa									
Lower middle-income									
[BT 37 Mauritania	2.3	2.1	2.7	2	2	3	8	2035	1.8 ET]
[BT 38 Liberia	2.8	3.3	3.2	2	3	4	11	2035	1.9 ET]
[BT 39 Zambia	3.0	3.2	3.4	6	8	11	35	2035	1.9 ET]
[BT 40 Lesotho	2.1	2.4	2.6	1	2	2	6	2030	1.8 ET]
[BT 41 Bolivia	2.4	2.6	2.5	6	7	9	22	2030	1.9 ET]
[BT 42 Indonesia	2.1	2.3	1.9	159	179	212	361	2010	1.8 ET]
[BT 43 Yemen Arab Rep.	2.6	2.8	2.8	8	9	12	39	2040	1.9 ET]
[BT 44 Yemen, PDR	2.1	2.3	2.5	2	2	3	7	2035	1.9 ET]
[BT 45 Cote d'Ivoire	4.6	4.5	3.7	10	13	17	46	2035	2.1 ET]
[BT 46 Philippines	2.9	2.7	2.2	53	62	76	137	2015	1.8 ET]
[BT 47 Morocco	2.7	2.4	2.4	21	25	31	66	2025	1.9 ET]
[BT 48 Honduras	2.9	3.5	3.0	4	5	7	15	2020	2.0 ET]
[BT 49 El Salvador	3.4	3.0	2.7	5	6	8	16	2015	1.9 ET]
[BT 50 Papua New Guinea	2.3	2.6	2.1	3	4	5	11	2030	1.8 ET]
[BT 51 Egypt, Arab Rep.	2.2	2.6	2.2	46	53	65	126	2020	1.8 ET]
[BT 52 Nigeria	2.5	2.8	3.4	96	118	163	528	2035	2.0 ET]
[BT 53 Zimbabwe	3.4	3.2	3.4	8	10	13	33	2025	2.0 ET]
[BT 54 Cameroon	2.4	3.1	3.3	10	12	17	51	2030	1.9 ET]
[BT 55 Nicaragua	3.2	3.0	2.9	3	4	5	12	2025	2.0 ET]
[BT 56 Thailand	~~2.8~~ 2.87	~~2.2~~	2.2	50	56	66	101	2005	1.8 ET]
[BT 57 Botswana	3.3	4.4	3.4	1	1	2	5	2025	2.0 ET]
[BT 58 Dominican Rep.	2.9	2.4	2.2	6	7	9	15	2010	1.9 ET]
[BT 59 Peru	2.8	2.4	2.2	18	21	26	46	2015	1.8 ET]
[BT 60 Mauritius	2.0	1.4	1.5	1	1	1	2	2010	1.7 ET]
[BT 61 Congo, People's Rep.	2.6	3.1	3.7	2	2	3	9	2025	1.9 ET]
[BT 62 Ecuador	3.2	2.9	2.3	9	11	13	26	2015	1.9 ET]
[BT 63 Jamaica	1.5	1.2	1.2	2	2	3	4	2005	1.7 ET]
[BT 64 Guatemala	2.8	2.8	2.6	8	9	12	27	2020	1.9 ET]
[BT 65 Turkey	2.5	2.2	2.0	48	55	65	109	2010	1.7 ET]

Note: For data comparability and coverage, see the technical notes.

	Average annual growth of population (percent)			Population (millions)			Hypothetical size of stationary population (millions)	Assumed year of reaching net reproduction rate of 1	Population momentum 1985
	1965-73	1973-84	1980-2000	1984	1990[a]	2000[a]			
[BT 66 Costa Rica	3.0	.9	2.1	3	3	3	5	2005	1.9 ET]
[BT 67 Paraguay	2.7	.5	2.3	3	4	5	8	2010	1.9 ET]
[BT 68 Tunisia	2.0	2.4	2.3	7	8	10	18	2015	1.8 ET]
[BT 69 Colombia	2.6	2.0	1.8	28	31	37	59	2010	1.8 ET]
[BT 70 Syrian Arab Rep.	3.4	3.4	3.4	10	12	17	39	2020	1.9 ET]
[BT 71 /Angola//	2.1	3.1	2.7	9	10	13	43	2040	1.9 ET]
[BT 72 /Cuba//	1.8	0.8	1.0	10	11	12	14	2010	1.4 ET]
[BT 73 /Korea, Dem. Rep.//	2.8	2.6	2.1	20	23	28	46	2010	1.8 ET]
[BT 74 /Lebanon//	2.6	0.0	1.3	3	3	3	6	2010	1.7 ET]
[BT 75 /Mongolia//	3.1	2.8	2.5	2	2	3	6	2020	1.9 ET]
Upper middle-income									
[BT 76 Chile	1.9	1.7	1.4	12	13	14	20	2000	1.6 ET]
[BT 77 Jordan	3.0	2.8	4.0	3	4	6	17	2020	1.9 ET]
[BT 78 Brazil	2.5	2.3	2.0	133	150	179	293	2010	1.8 ET]
[BT 79 Portugal	-0.2	1.0	0.6	10	11	11	13	2010	1.3 ET]
[BT 80 Malaysia	2.6	2.4	2.1	15	17	21	33	2005	1.8 ET]
[BT 81 Panama	2.8	2.3	1.6	2	2	3	4	2000	1.7 ET]
[BT 82 Uruguay	0.6	0.5	0.7	3	3	3	4	2000	1.3 ET]
[BT 83 Mexico	3.3	2.9	2.3	77	89	110	196	2010	1.9 ET]
[BT 84 Korea, Rep. of	2.2	1.5	1.4	40	44	49	66	2000	1.6 ET]
[BT 85 Yugoslavia	0.9	0.8	0.6	23	24	25	29	2010	1.3 ET]
[BT 86 Argentina	1.5	1.6	1.3	30	33	37	53	2020	1.5 ET]
[BT 87 South Africa	2.3	2.4	2.5	32	36	45	94	2025	1.8 ET]
[BT 88 Algeria	3.0	3.1	3.3	21	26	34	81	2025	1.9 ET]
[BT 89 Venezuela	3.5	3.3	2.6	17	20	24	39	2005	1.8 ET]
[BT 90 Greece	0.5	1.0	0.4	10	10	11	12	2000	1.2 ET]
[BT 91 Israel	3.1	2.2	1.7	4	5	5	8	2005	1.6 ET]
[BT 92 Hong Kong	2.0	2.4	1.2	5	6	6	7	2010	1.4 ET]
[BT 93 Trinidad and Tobago	1.3	1.5	1.6	1	1	1	2	2005	1.7 ET]
[BT 94 Singapore	1.8	1.3	1.0	3	3	3	3	2010	1.4 ET]
[BT 95 /Iran, Islamic Rep.//	3.3	3.1	3.1	44	53	71	162	2020	1.9 ET]
[BT 96 /Iraq//	3.3	3.6	3.5	15	19	26	71	2025	1.9 ET]
High-income oil exporters									
[BT 97 Oman	2.9	4.5	3.0	1	1	2	5	2030	1.9 ET]
[BT 98 Libya	4.1	4.1	4.0	3	4	6	17	2025	1.9 ET]
[BT 99 Saudi Arabia	4.0	4.9	3.7	11	14	20	61	2030	1.8 ET]
[BT 100 Kuwait	8.3	5.8	3.5	2	2	3	5	2010	1.8 ET]
[BT 101 United Arab Emirates	11.8	10.7	3.8	1	2	2	3	2010	1.4 ET]
Industrial market economies									
[BT 102 Spain	1.0	1.0	0.7	39	40	43	49	2010	1.3 ET]
[BT 103 Ireland	0.8	1.3	1.0	4	4	4	6	2005	1.4 ET]
[BT 104 Italy	0.6	0.3	0.2	57	57	59	57	2010	1.1 ET]
[BT 105 New Zealand	1.4	0.6	0.7	3	3	4	4	2000	1.3 ET]
[BT 106 United Kingdom	0.4	0.0	0.1	56	57	58	59	2010	1.1 ET]
[BT 107 Belgium	0.4	0.1	0.1	10	10	10	9	2010	1.1 ET]
[BT 108 Austria	0.4	0.0	0.1	8	8	8	7	2010	1.1 ET]
[BT 109 Netherlands	1.1	0.7	0.4	14	15	15	15	2010	1.2 ET]
[BT 110 France	0.8	0.5	0.5	55	57	59	64	2010	1.2 ET]
[BT 111 Japan	1.2	0.9	0.5	120	123	129	129	2010	1.1 ET]
[BT 112 Finland	0.2	0.4	0.3	5	5	5	5	2010	1.1 ET]
[BT 113 Germany, Fed. Rep.	0.7	-0.1	-0.1	61	61	60	52	2010	1.0 ET]
[BT 114 Denmark	0.7	0.2	0.0	5	5	5	5	2010	1.1 ET]
[BT 115 Australia	2.1	1.3	1.1	16	17	18	22	2010	1.4 ET]
[BT 116 Sweden	0.7	0.2	0.0	8	8	8	8	2010	1.1 ET]
[BT 117 Canada	1.4	1.2	0.9	25	27	29	31	2010	1.3 ET]
[BT 118 Norway	0.8	0.4	0.2	4	4	4	4	2010	1.1 ET]
[BT 119 United States	1.1	1.0	0.7	237	248	263	288	2010	1.3 ET]
[BT 120 Switzerland	1.2	0.1	0.1	6	6	7	6	2010	1.1 ET]
East European nonmarket economies									
[BT 121 Hungary	0.3	0.2	-0.1	11	11	11	11	2010	1.0 ET]
[BT 122 /Albania//	2.6	2.0	1.8	3	3	4	6	2005	1.7 ET]
[BT 123 /Bulgaria//	0.6	0.3	0.2	9	9	9	10	2010	1.1 ET]
[BT 124 /Czechoslovakia//	0.3	0.5	0.3	15	16	16	19	2010	1.2 ET]
[BT 125 /German Dem. Rep.//	0.0	-0.1	0.0	17	17	17	17	2010	1.1 ET]
[BT 126 /Poland//	0.7	0.9	0.7	37	39	41	49	2000	1.3 ET]
[BT 127 /Romania//	1.2	0.8	0.6	23	24	25	29	2000	1.3 ET]
[BT 128 /USSR//	0.9	0.9	0.7	275	289	307	375	2005	1.3 ET]
Total[b]									

a. For the assumptions used in the projections see the technical notes.
b. Excludes countries with populations of less than one million.

Table 27. Life expectancy and related indicators

	Life expectancy at birth (years)				Infant mortality rate (aged under 1)		Child death rate (aged 1-4)	
	Male		Female					
	1965	1984	1965	1984	1965	1984	1965	1984
Low-income economies								
China and India								
Other low-income								
Sub-Saharan Africa								
[BT 1 Ethiopia	42	43	43	46	166	172	37	39 ET]
[BT 2 Bangladesh	45	50	44	51	153	124	24	18 ET]
[BT 3 Mali	37	44	39	48	207	176	47	44 ET]
[BT 4 Zaire	42	49	45	53	142	103	30	20 ET]
[BT 5 Burkina Faso	40	44	42	46	195	146	52	30 ET]
[BT 6 Nepal	40	47	39	46	184	135	30	20 ET]
[BT 7 Burma	46	57	49	60	125	67	21	7 ET]
[BT 8 Malawi	38	44	40	46	201	158	55	36 ET]
[BT 9 Niger	35	42	38	45	181	142	46	29 ET]
[BT 10 Tanzania	41	50	44	53	138	111	29	22 ET]
[BT 11 Burundi	42	46	45	49	143	120	38	24 ET]
[BT 12 Uganda	43	49	47	53	122	110	26	21 ET]
[BT 13 Togo	40	50	43	53	156	98	36	12 ET]
[BT 14 Central African Rep.	40	47	41	50	169	138	47	27 ET]
[BT 15 India	46	56	44	55	151	90	23	11 ET]
[BT 16 Madagascar	41	51	44	54	..	110	..	22 ET]
[BT 17 Somalia	36	44	40	47	166	153	37	33 ET]
[BT 18 Benin	41	47	43	51	168	116	52	19 ET]
[BT 19 Rwanda	47	46	51	49	141	128	35	26 ET]
[BT 20 China	55	68	59	70	85	36	11	2 ET]
[BT 21 Kenya	43	52	46	56	113	92	25	16 ET]
[BT 22 Sierra Leone	32	38	33	39	221	176	69	44 ET]
[BT 23 Haiti	46	53	47	57	138	124	37	22 ET]
[BT 24 Guinea	34	38	36	39	197	176	53	44 ET]
[BT 25 Ghana	45	51	49	55	123	95	25	11 ET]
[BT 26 Sri Lanka	63	68	64	72	63	37	6	2 ET]
[BT 27 Sudan	39	46	41	50	161	113	37	18 ET]
[BT 28 Pakistan	46	52	44	50	150	116	23	16 ET]
[BT 29 Senegal	40	45	42	48	172	138	42	27 ET]
[BT 30 /Afghanistan//	34	35	35	37	223	190	39	32 ET]
[BT 31 /Bhutan//	34	44	32	43	184	135	30	20 ET]
[BT 32 /Chad//	39	43	41	45	184	139	47	27 ET]
[BT 33 /Kampuchea, Dem.//	43	..	45	..	135	..	19	.. ET]
[BT 34 /Lao PDR//	39	43	42	46	196	153	34	24 ET]
[BT 35 /Mozambique//	36	45	39	48	172	125	31	22 ET]
[BT 36 /Viet Nam//	47	63	50	67	89	50	8	4 ET]
Middle-income economies								
Oil exporters								
Oil importers								
Sub-Saharan Africa								
Lower middle-income								
[BT 37 Mauritania	39	45	42	48	171	133	41	25 ET]
[BT 38 Liberia	40	48	44	52	172	128	32	23 ET]
[BT 39 Zambia	42	50	46	53	123	85	29	15 ET]
[BT 40 Lesotho	47	52	50	56	143	107	20	14 ET]
[BT 41 Bolivia	42	51	46	54	161	118	37	20 ET]
[BT 42 Indonesia	43	53	45	56	138	97	20	12 ET]
[BT 43 Yemen Arab Rep.	37	44	38	46	200	155	55	35 ET]
[BT 44 Yemen, PDR	37	46	39	48	194	146	52	31 ET]
[BT 45 Cote d'Ivoire	43	51	45	54	176	106	37	15 ET]
[BT 46 Philippines	54	61	57	65	73	49	11	4 ET]
[BT 47 Morocco	48	57	51	61	147	91	32	10 ET]
[BT 48 Honduras	48	59	51	63	131	77	24	7 ET]
[BT 49 El Salvador	52	63	56	68	120	66	20	5 ET]
[BT 50 Papua New Guinea	44	51	44	54	143	69	23	7 ET]
[BT 51 Egypt, Arab Rep	47	59	50	62	173	94	21	11 ET]
[BT 52 Nigeria	40	48	43	51	179	110	33	21 ET]
[BT 53 Zimbabwe	46	55	49	59	104	77	15	7 ET]
[BT 54 Cameroon	44	53	47	56	145	92	34	10 ET]
[BT 55 Nicaragua	49	58	51	62	123	70	24	6 ET]
[BT 56 Thailand	53	62	58	66	90	44	11	3 ET]
[BT 57 Botswana	46	55	49	61	108	72	21	ET]
[BT 58 Dominican Rep.	52	62	56	66	111	71	14	6 ET]
[BT 59 Peru	49	58	52	61	131	95	24	11 ET]
[BT 60 Mauritius	59	62	63	69	64	26	9	ET]
[BT 61 Congo, People's Rep.	48	55	51	59	121	78	19	7 ET]
[BT 62 Ecuador	54	63	57	67	113	67	22	5 ET]
[BT 63 Jamaica	63	71	67	76	51	20	4	1 ET]
[BT 64 Guatemala	48	58	50	62	114	66	16	5 ET]
[BT 65 Turkey	52	61	55	66	157	86	35	9 ET]

Note: For data comparability and coverage, see the technical notes.

	Life expectancy at birth (years)				Infant mortality rate (aged under 1)		Child death rate (aged 1-4)	
	Male		Female					
	1965	1984	1965	1984	1965	1984	1965	1984
[BT 66 Costa Rica	63	71	66	76	72	19	8	(.) ET]
[BT 67 Paraguay	56	64	60	68	74	44	7	2 ET]
[BT 68 Tunisia	50	60	51	64	147	79	30	8 ET]
[BT 69 Colombia	53	63	59	67	99	48	8	3 ET]
[BT 70 Syrian Arab Rep.	51	62	54	65	116	55	19	4 ET]
[BT 71 /Angola//	34	42	37	44	193	144	52	30 ET]
[BT 72 /Cuba//	65	73	69	77	38	16	4	(.) ET]
[BT 73 /Korea, Dem. Rep.//	55	65	58	72	64	28	6	2 ET]
[BT 74 /Lebanon//	60	64	64	68	57	44	4	2 ET]
[BT 75 /Mongolia//	55	61	58	65	89	50	11	4 ET]
Upper middle-income								
[BT 76 Chile	56	67	62	73	110	22	14	1 ET]
[BT 77 Jordan	49	62	51	66	117	50	19	3 ET]
[BT 78 Brazil	55	62	59	67	104	68	14	6 ET]
[BT 79 Portugal	61	71	68	77	69	19	6	1 ET]
[BT 80 Malaysia	56	66	59	71	57	28	5	2 ET]
[BT 81 Panama	62	70	64	73	59	25	4	1 ET]
[BT 82 Uruguay	65	71	72	75	47	29	3	1 ET]
[BT 83 Mexico	58	64	61	69	84	51	9	3 ET]
[BT 84 Korea, Rep. of	55	65	58	72	64	28	6	2 ET]
[BT 85 Yugoslavia	64	66	68	73	72	28	7	2 ET]
[BT 86 Argentina	63	67	69	74	59	34	4	1 ET]
[BT 87 South Africa	45	52	48	56	124	79	22	7 ET]
[BT 88 Algeria	49	59	51	62	155	82	34	8 ET]
[BT 89 Venezuela	60	66	64	73	67	38	6	2 ET]
[BT 90 Greece	69	72	72	78	37	16	2	1 ET]
[BT 91 Israel	70	73	73	77	29	14	2	(.) ET]
[BT 92 Hong Kong	64	73	71	79	28	10	2	(.) ET]
[BT 93 Trinidad and Tobago	63	67	67	72	43	22	3	1 ET]
[BT 94 Singapore	63	70	68	75	28	10	1	(.) ET]
[BT 95 /Iran, Islamic Rep.//	52	61	52	61	150	112	32	17 ET]
[BT 96 /Iraq//	50	58	53	62	121	74	21	7 ET]
High-income oil exporters								
[BT 97 Oman	40	52	42	55	175	110	43	17 ET]
[BT 98 Libya	48	57	51	61	140	91	29	10 ET]
[BT 99 Saudi Arabia	47	60	49	64	148	61	38	4 ET]
[BT 100 Kuwait	61	69	64	74	43	22	5	1 ET]
[BT 101 United Arab Emirates	57	~~74~~ 70	61	~~72~~ 74	104	36	14	1 ET]
Industrial market economies								
[BT 102 Spain	68	74	73	80	38	10	3	(.) ET]
[BT 103 Ireland	69	71	73	76	27	10	1	(.) ET]
[BT 104 Italy	68	74	73	79	38	12	3	(.) ET]
[BT 105 New Zealand	68	71	74	77	20	12	1	(.) ET]
[BT 106 United Kingdom	68	72	74	78	20	10	1	(.) ET]
[BT 107 Belgium	68	72	74	78	24	11	1	(.) ET]
[BT 108 Austria	66	70	73	77	30	11	2	(.) ET]
[BT 109 Netherlands	71	73	76	80	14	8	1	(.) ET]
[BT 110 France	68	74	75	80	22	9	1	(.) ET]
[BT 111 Japan	68	75	73	80	21	6	1	(.) ET]
[BT 112 Finland	66	72	73	79	17	6	1	(.) ET]
[BT 113 Germany, Fed. Rep.	67	72	73	78	26	10	1	(.) ET]
[BT 114 Denmark	71	72	75	78	19	8	1	(.) ET]
[BT 115 Australia	68	73	74	79	19	9	1	(.) ET]
[BT 116 Sweden	72	74	76	80	13	7	1	(.) ET]
[BT 117 Canada	69	72	75	80	24	9	1	(.) ET]
[BT 118 Norway	71	74	76	80	17	8	1	(.) ET]
[BT 119 United States	67	72	74	80	25	11	1	(.) ET]
[BT 120 Switzerland	69	73	75	80	18	8	1	(.) ET]
East European nonmarket economies								
[BT 121 Hungary	67	67	72	74	42	19	3	1 ET]
[BT 122 /Albania//	64	~~66~~ 67	67	~~72~~ 73	87	43	10	3 ET]
[BT 123 /Bulgaria//	66	68	72	74	35	17	2	1 ET]
[BT 124 /Czechoslovakia//	64	66	73	74	23	15	1	1 ET]
[BT 125 /German Dem. Rep.//	67	68	73	75	27	11	1	(.) ET]
[BT 126 /Poland//	66	67	72	76	46	19	3	1 ET]
[BT 127 /Romania//	66	69	70	74	53	25	1	1 ET]
[BT 128 /USSR//	65	65	74	74	30	..	2	.. ET]

Table 26. Demography and fertility

	Crude birth rate per thousand population 1965	1984	Crude death rate per thousand population 1965	1984	Percentage change in: Crude birth rate 1965–84	Crude death rate 1965–84	Total fertility rate 1984	2000	Percentage of married women of childbearing age using contraception[a] 1970[b]	1983[b]
Low-income economies										
China and India										
Other low-income										
Sub-Saharan Africa										
[BT 1 Ethiopia	44	41	19	24	-5.7	26.3	6.1	5.5	..	/2// ET]
[BT 2 Bangladesh	47	41	22	15	-14.0	-28.8	5.7	3.7	..	25 ET]
[BT 3 Mali	50	48	27	20	-5.3	-26.7	6.5	5.9	..	/1// ET]
[BT 4 Zaire	48	45	21	15	-5.8	-28.3	6.1	4.9	..	/3// ET]
[BT 5 Burkina Faso	46	47	24	21	2.2	-14.6	6.5	6.0	..	/1// ET]
[BT 6 Nepal	46	43	24	18	-5.6	-25.4	6.3	5.3	..	/7// ET]
[BT 7 Burma	40	30	19	11	-24.2	-43.6	4.0	3.0	..	/5// ET]
[BT 8 Malawi	56	54	27	22	-4.3	-17.0	7.6	6.4	..	/1// ET]
[BT 9 Niger	48	51	29	22	6.1	-26.0	7.0	6.4	..	/1// ET]
[BT 10 Tanzania	49	50	22	16	2.6	-30.0	7.0	5.7	..	/1// ET]
[BT 11 Burundi	47	47	24	19	-0.4	-24.0	6.5	5.9	..	/1// ET]
[BT 12 Uganda	49	50	19	16	2.1	-18.6	6.9	5.7	..	1 ET]
[BT 13 Togo	50	49	23	16	-2.0	-30.5	6.5	5.4	..	.. ET]
[BT 14 Central African Rep.	34	42	24	17	-23.8	-32.0	5.6	5.4	..	.. ET]
[BT 15 India	45	33	21	12	-27.1	-41.4	4.6	2.9	12	35 ET]
[BT 16 Madagascar	44	47	21	15	6.6	-29.2	6.5	5.0	..	/1// ET]
[BT 17 Somalia	50	49	26	20	-1.4	-23.7	6.8	6.2	..	1 ET]
[BT 18 Benin	49	49	25	17	0.6	-29.3	6.5	5.4	..	/18// ET]
[BT 19 Rwanda	52	52	17	19	0.8	8.4	8.0	6.7	..	/1// ET]
[BT 20 China	44	19	13	7	-56.7	-50.4	2.3	2.1	..	/71// ET]
[BT 21 Kenya	51	53	21	13	9.8	-37.4	7.9	5.6	/6//	17 ET]
[BT 22 Sierra Leone	48	49	33	26	1.0	-20.3	6.5	6.0	..	/4// ET]
[BT 23 Haiti	38	32	18	12	-15.2	-31.3	4.5	3.3	..	/7// ET]
[BT 24 Guinea	46	47	30	26	1.3	-12.0	6.0	5.6	..	/1// ET]
[BT 25 Ghana	50	46	20	14	-8.6	-29.5	6.4	4.7	..	/10// ET]
[BT 26 Sri Lanka	33	26	8	6	-21.1	-25.6	3.2	2.3	6	/55// ET]
[BT 27 Sudan	47	45	24	17	-3.6	-28.0	6.6	5.5	..	/5// ET]
[BT 28 Pakistan	48	42	21	15	-12.5	-29.6	6.0	4.4	6	10 ET]
[BT 29 Senegal	47	46	23	19	-2.0	-17.9	6.6	5.5	..	/4// ET]
[BT 30 /Afghanistan//	54	52	29	28	-3.0	-6.0	7.7	5.6	/2//	.. ET]
[BT 31 /Bhutan//	43	43	32	21	-0.7	-34.6	6.2	5.2	..	.. ET]
[BT 32 /Chad//	40	43	26	21	6.7	-19.6	5.6	5.5	..	/1// ET]
[BT 33 /Kampuchea, Dem.//	44	..	20	..	..	..	5.0	3.8	..	/0 ET]
[BT 34 /Lao PDR//	44	42	23	19	-6.6	-15.9	6.4	5.4	..	.. ET]
[BT 35 /Mozambique//	49	45	27	18	-7.8	-32.2	6.3	5.7	..	1 ET]
[BT 36 /Viet Nam//	45	35	17	8	-22.2	-55.3	4.7	3.1	..	/21// ET]
Middle-income economies										
Oil exporters										
Oil importers										
Sub-Saharan Africa										
Lower middle-income										
[BT 37 Mauritania	44	45	25	19	1.5	-25.1	6.2	5.9	..	/1// ET]
[BT 38 Liberia	46	49	22	17	6.1	-25.2	6.9	5.7	..	.. ET]
[BT 39 Zambia	49	48	20	15	-2.1	-26.3	6.8	5.6	..	/14 ET]
[BT 40 Lesotho	42	41	18	14	-4.5	-19.7	5.8	4.7	..	.. ET]
[BT 41 Bolivia	46	43	21	15	-7.1	-29.4	6.0	4.1	..	/5// /24// ET]
[BT 42 Indonesia	43	33	20	12	-23.7	-39.2	4.2	2.8	..	50 ET]
[BT 43 Yemen Arab Rep.	49	48	27	21	-3.0	-23.6	6.8	5.7	..	/1 ET]
[BT 44 Yemen, PDR	50	46	27	18	-6.9	-32.3	6.1	4.4	..	.. ET]
[BT 45 Cote d'Ivoire	44	45	22	14	2.4	-37.3	6.5	4.8	..	/3// ET]
[BT 46 Philippines	42	33	12	8	-21.0	-35.3	4.4	3.0	2	/48// ET]
[BT 47 Morocco	49	36	19	11	-26.8	-41.1	4.9	3.5	1	/26// ET]
[BT 48 Honduras	50	43	17	10	-15.8	-43.5	6.2	3.8	..	/27// ET]
[BT 49 El Salvador	46	39	14	7	-16.6	-50.2	5.3	3.2	..	/34// ET]
[BT 50 Papua New Guinea	43	38	20	13	-12.9	-35.1	5.4	3.9	..	/5// ET]
[BT 51 Egypt, Arab Rep.	44	36	19	10	-17.2	-45.6	4.8	3.3	10	30 ET]
[BT 52 Nigeria	51	50	23	16	-3.4	-28.1	6.9	5.7	..	/5 ET]
[BT 53 Zimbabwe	55	47	17	12	-14.2	-31.0	6.3	4.0	..	27 ET]
[BT 54 Cameroon	40	47	20	14	18.5	-28.5	6.7	5.6	..	/3// ET]
[BT 55 Nicaragua	49	43	16	10	-13.3	-38.4	5.7	3.8	..	/9// ET]
[BT 56 Thailand	43	26	12	8	-38.8	-38.7	3.3	2.3	15	63 ET]
[BT 57 Botswana	53	46	19	12	-13.3	-36.3	6.7	4.7	..	.. ET]
[BT 58 Dominican Rep.	47	33	14	7	-29.6	-48.1	4.0	2.7	..	46 ET]
[BT 59 Peru	45	33	17	10	-26.1	-37.3	4.3	3.0	..	/41// ET]
[BT 60 Mauritius	37	21	8	7	-43.5	-21.9	2.7	2.3	..	/51// ET]
[BT 61 Congo, People's Rep.	41	45	18	12	9.3	-31.4	6.2	5.6	..	.. ET]
[BT 62 Ecuador	45	36	15	7	-21.4	-50.5	4.8	3.1	..	/40// ET]
[BT 63 Jamaica	38	28	9	6	-28.5	-33.3	3.3	2.3	..	51 ET]
[BT 64 Guatemala	46	41	16	10	-10.8	-40.6	5.8	3.6	..	/25// ET]
[BT 65 Turkey	41	30	14	9	-26.6	-41.0	3.9	2.6	/32//	/38// ET]

Note: For data comparability and coverage, see the technical notes.

	Crude birth rate per thousand population		Crude death rate per thousand population		Percentage change in: Crude birth rate	Crude death rate	Total fertility rate		Percentage of married women of childbearing age using contraception[a]	
	1965	1984	1965	1984	1965–84	1965–84	1984	2000	1970[b]	1983[b]
[BT 66 Costa Rica	40	29	8	4	-28.7	-47.4	3.3	2.3	..	/65// ET]
[BT 67 Paraguay	41	31	11	7	-25.9	-38.0	4.0	2.7	..	/35// ET]
[BT 68 Tunisia	44	32	18	9	-27.1	-48.4	4.6	3.0	10	41 ET]
[BT 69 Colombia	45	28	15	7	-39.0	-50.5	3.4	2.5	34	55 ET]
[BT 70 Syrian Arab Rep.	48	45	16	8	-5.9	-49.2	6.8	4.0	..	/23// ET]
[BT 71 /Angola//	49	47	29	22	-3.8	-25.9	6.4	5.9	..	.. ET]
[BT 72 /Cuba//	34	17	8	6	-50.9	-25.0	2.0	2.0	..	/79// ET]
[BT 73 /Korea, Dem. Rep.//	39	30	12	6	-23.9	-49.6	3.8	2.6	..	.. ET]
[BT 74 /Lebanon//	41	28	13	8	-30.3	-33.9	3.6	2.6	/53//	.. ET]
[BT 75 /Mongolia//	42	35	12	8	-15.5	-35.0	4.9	3.3	..	.. ET]
Upper middle-income										
[BT 76 Chile	32	21	11	6	-34.4	-41.7	2.5	2.1	..	/43// ET]
[BT 77 Jordan	48	46	18	8	-4.8	-56.0	7.4	5.2	/22//	26 ET]
[BT 78 Brazil	39	30	11	8	-24.6	-30.6	3.6	2.6	..	/50// ET]
[BT 79 Portugal	23	14	10	10	-37.4	-7.7	2.0	2.0	..	/66// ET]
[BT 80 Malaysia	41	30	12	6	-26.1	-46.8	3.7	2.4	/33//	/42// ET]
[BT 81 Panama	40	27	9	5	-33.5	-40.9	3.3	2.1	..	/61// ET]
[BT 82 Uruguay	21	18	10	9	-15.5	-3.0	2.5	2.1	..	.. ET]
[BT 83 Mexico	45	33	11	7	-25.5	-38.8	4.4	2.7	..	/48// ET]
[BT 84 Korea, Rep. of	36	20	11	6	-43.8	-46.7	2.5	2.1	/25//	/58// ET]
[BT 85 Yugoslavia	21	16	9	9	-21.9	5.7	2.1	2.1	59	/55// ET]
[BT 86 Argentina	22	24	9	9	8.8	0.0	3.3	2.5	..	.. ET]
[BT 87 South Africa	41	38	19	13	-9.2	-31.1	4.9	3.5	..	.. ET]
[BT 88 Algeria	50	42	18	11	-16.6	-42.9	6.4	4.1	..	/7// ET]
[BT 89 Venezuela	43	32	9	5	-26.8	-43.5	3.9	2.4	..	/49// ET]
[BT 90 Greece	18	13	8	9	-27.7	12.7	2.1	2.1	..	.. ET]
[BT 91 Israel	24	23	6	7	-6.6	7.9	3.0	2.2	..	.. ET]
[BT 92 Hong Kong	28	14	6	5	-49.1	-17.2	1.8	2.0	/42//	/80// ET]
[BT 93 Trinidad and Tobago	33	26	7	7	-21.2	-2.8	2.8	2.2	/44//	/52// ET]
[BT 94 Singapore	31	17	6	6	-43.6	0.0	1.7	1.9	/60//	/71// ET]
[BT 95 /Iran, Islamic Rep.//	50	41	17	9	-19.2	-45.3	5.6	4.2	3	/23// ET]
[BT 96 /Iraq//	49	45	18	10	-8.7	-42.3	6.7	5.1	/14//	.. ET]
High-Income oil exporters										
[BT 97 Oman	50	45	24	14	-11.0	-43.0	6.8	4.5	..	.. ET]
[BT 98 Libya	49	46	18	11	-7.4	-40.2	7.2	5.4	..	.. ET]
[BT 99 Saudi Arabia	49	43	20	9	-12.4	-58.0	7.1	5.6	..	.. ET]
[BT 100 Kuwait	47	35	8	3	-25.2	-56.9	5.4	2.9	..	.. ET]
[BT 101 United Arab Emirates	41	30	15	3	-26.5	-79.1	5.9	3.6	..	.. ET]
Industrial market economies										
[BT 102 Spain	21	13	8	7	-36.5	-11.9	2.1	2.1	..	/51// ET]
[BT 103 Ireland	22	19	12	9	-14.0	-19.1	2.7	2.2	..	.. ET]
[BT 104 Italy	19	10	10	9	-46.1	-7.0	1.6	1.9	..	/78// ET]
[BT 105 New Zealand	23	18	9	8	-21.8	-6.9	2.2	2.1	..	.. ET]
[BT 106 United Kingdom	18	13	12	12	-28.8	0.0	1.8	2.0	/69//	/77// ET]
[BT 107 Belgium	17	12	12	11	-29.1	-9.0	1.6	1.9	..	/85// ET]
[BT 108 Austria	18	12	13	12	-34.6	-10.8	1.6	1.9	..	.. ET]
[BT 109 Netherlands	20	12	8	8	-39.2	3.8	1.5	1.8	..	/75// ET]
[BT 110 France	18	14	11	10	-22.5	-12.5	1.9	2.0	/64//	/79// ET]
[BT 111 Japan	19	13	7	7	-32.6	-2.8	1.8	2.0	56	/56// ET]
[BT 112 Finland	17	13	10	9	-21.6	-5.2	1.7	1.9	/77//	/80// ET]
[BT 113 Germany, Fed. Rep.	18	10	12	11	-46.3	-1.7	1.4	1.8	..	.. ET]
[BT 114 Denmark	18	10	10	11	-43.9	10.9	1.4	1.8	67	/63// ET]
[BT 115 Australia	20	16	9	7	-20.9	-19.3	2.0	2.0	..	.. ET]
[BT 116 Sweden	16	11	10	11	-28.9	7.9	1.6	1.9	..	/78// ET]
[BT 117 Canada	21	15	8	7	-29.6	-7.9	1.7	1.9	..	.. ET]
[BT 118 Norway	16	12	10	10	-25.5	7.4	1.7	1.9	..	/71// ET]
[BT 119 United States	19	16	9	9	-19.1	-7.4	1.8	2.0	65	/76// ET]
[BT 120 Switzerland	19	12	10	9	-39.8	-4.2	1.5	1.9	..	/70// ET]
East European nonmarket economies										
[BT 121 Hungary	13	12	11	14	-10.7	29.2	1.7	1.9	/67//	/74// ET]
[BT 122 /Albania//	37	26	9	6	-31.6	-31.5	3.4	2.3	..	.. ET]
[BT 123 /Bulgaria//	15	14	8	11	-10.5	37.8	2.0	2.1	..	/76// ET]
[BT 124 /Czechoslovakia//	16	15	10	12	-10.4	18.0	2.0	2.1	..	/95// ET]
[BT 125 /German Dem. Rep.//	17	14	14	13	-17.0	-1.5	1.8	2.0	..	.. ET]
[BT 126 /Poland//	17	19	7	10	9.2	29.7	2.3	2.1	/60//	/75// ET]
[BT 127 /Romania//	22	14	9	10	-34.4	20.9	2.2	2.1	..	/58// ET]
[BT 128 /USSR//	20	20	7	11	-1.3	47.9	2.3	2.1	..	.. ET]

a. Figures include women whose husbands practice contraception. See the technical notes. b. Figures in italics are for years or periods other than those specified. See the technical notes.

Table 31. Urbanization

	Urban population: As percentage of total population		Urban population: Average annual growth rate (percent)		Percentage of urban population: In largest city		Percentage of urban population: In cities of over 500,000 persons		Number of cities of over 500,000 persons	
	1965[a]	1984[a]	1965-73	1973-84	1960	1980	1960	1980	1960	1980
Low-income economies										
China and India										
Other low-income										
Sub-Saharan Africa										
[BT 1 Ethiopia	8	15	7.4	5.1	30	37	0	37	0	1 ET]
[BT 2 Bangladesh	6	18	6.6	7.7	20	30	20	51	1	3 ET]
[BT 3 Mali	13	19	5.4	4.5	32	24	0	0	0	0 ET]
[BT 4 Zaire	19	39	5.9	7.1	14	28	14	38	1	2 ET]
[BT 5 Burkina Faso	6	11	6.5	4.8	..	41	0	0	0	0 ET]
[BT 6 Nepal	/4//	7	4.3	8.4	41	27	0	0	0	0 ET]
[BT 7 Burma	21	29	4.0	4.0	23	23	23	23	1	2 ET]
[BT 8 Malawi	5	12	8.2	7.3	..	19	0	0	0	0 ET]
[BT 9 Niger	7	14	7.0	7.1	..	31	0	0	0	0 ET]
[BT 10 Tanzania	6	14	8.1	8.6	34	50	0	50	0	1 ET]
[BT 11 Burundi	2	~~2~~ 2	1.4	3.3	..	..	0	0	0	0 ET]
[BT 12 Uganda	6	7	8.3	-0.1	38	52	0	52	0	1 ET]
[BT 13 Togo	11	23	6.4	6.5	..	60	0	0	0	0 ET]
[BT 14 Central African Rep.	27	45	4.4	4.6	40	36	0	0	0	0 ET]
[BT 15 India	~~18~~ 19	25	4.0	4.2	7	6	26	39	11	36 ET]
[BT 16 Madagascar	12	21	5.3	5.5	44	36	0	36	0	1 ET]
[BT 17 Somalia	20	33	6.4	5.4	..	34	0	0	0	0 ET]
[BT 18 Benin	11	15	4.5	5.0	..	63	0	63	0	1 ET]
[BT 19 Rwanda	3	5	6.0	6.6	..	0	0	0	0	0 ET]
[BT 20 China	18	22	2.8	1.6	6	6	42	45	38	78 ET]
[BT 21 Kenya	9	18	7.3	7.9	40	57	0	57	0	1 ET]
[BT 22 Sierra Leone	15	24	5.0	3.5	37	47	0	0	0	0 ET]
[BT 23 Haiti	18	27	3.8	4.2	42	56	0	56	0	1 ET]
[BT 24 Guinea	12	27	5.0	6.2	37	80	0	80	0	1 ET]
[BT 25 Ghana	26	39	4.5	5.3	25	35	0	48	0	2 ET]
[BT 26 Sri Lanka	20	21	3.4	3.5	28	16	0	16	0	1 ET]
[BT 27 Sudan	13	21	6.3	5.5	30	31	0	31	0	1 ET]
[BT 28 Pakistan	24	29	4.3	4.4	20	21	33	51	2	7 ET]
[BT 29 Senegal	27	35	4.2	3.8	53	65	0	65	0	1 ET]
[BT 30 /Afghanistan//	~~10~~ 9	18	5.6	6.1	33	17	0	17	0	1 ET]
[BT 31 /Bhutan//	~~4~~ 3	4	2.1	4.6	0	0	0	0	0	0 ET]
[BT 32 /Chad//	9	21	6.9	6.5	..	39	0	0	0	0 ET]
[BT 33 /Kampuchea, Dem.//	11	15	3.4	1.6	..	..	..	..	..	.. ET]
[BT 34 /Lao PDR//	8	15	4.6	5.7	69	48	0	0	0	0 ET]
[BT 35 /Mozambique//	5	16	8.2	10.2	75	83	0	83	0	1 ET]
[BT 36 /Viet Nam//	16	20	5.5	2.3	32	21	32	50	1	4 ET]
Middle-income										
Oil exporters										
Oil importers										
Sub-Saharan Africa										
Lower middle-income										
[BT 37 Mauritania	7	26	16.0	5.1	..	39	0	0	0	0 ET]
[BT 38 Liberia	22 ~~25~~	39	5.3	6.0	..	..	0	0	0	0 ET]
[BT 39 Zambia	24	48	7.6	6.4	..	35	0	35	0	1 ET]
[BT 40 Lesotho	2	13	7.8	20.1	..	..	0	0	0	0 ET]
[BT 41 Bolivia	40 ~~36~~	43	8.9	3.6	47	44	0	44	0	1 ET]
[BT 42 Indonesia	16	25	4.1	4.5	20	23	34	50	3	9 ET]
[BT 43 Yemen Arab Rep.	~~6~~ 5	19	9.7	8.8	..	25	0	0	0	0 ET]
[BT 44 Yemen, PDR	30	37	3.4	3.5	61	49	0	0	0	0 ET]
[BT 45 Cote d'Ivoire	23	46	8.2	8.3	27	34	0	34	0	1 ET]
[BT 46 Philippines	32	39	4.0	3.7	27	30	27	34	1	2 ET]
[BT 47 Morocco	32	43	4.0	4.2	16	26	16	50	1	4 ET]
[BT 48 Honduras	26	39	5.4	5.7	31	33	0	0	0	0 ET]
[BT 49 El Salvador	39	43	3.6	3.6	26	22	0	0	0	0 ET]
[BT 50 Papua New Guinea	5	14	14.3	6.1	..	25	0	0	0	0 ET]
[BT 51 Egypt, Arab Rep.	40 ~~41~~	45	3.0	3.0	38	39	53	53	2	2 ET]
[BT 52 Nigeria	15	~~20~~ 23	4.7	5.2	13	17	22	58	2	9 ET]
[BT 53 Zimbabwe	14	27	6.8	6.1	40	50	0	50	0	1 ET]
[BT 54 Cameroon	16	~~21~~	7.3	8.2	26	21	0	21	0	1 ET]
[BT 55 Nicaragua	43	56	4.4	5.2	41	47	0	47	0	1 ET]
[BT 56 Thailand	13	18	4.8	3.1	65	69	65	69	1	1 ET]
[BT 57 Botswana	4	~~21~~ 20	19.0	11.3	..	..	..	..	..	.. ET]
[BT 58 Dominican Rep.	35	55	5.6	4.7	50	54	0	54	0	1 ET]
[BT 59 Peru	52	68	4.7	3.6	38	39	38	44	1	2 ET]
[BT 60 Mauritius	37	56	4.6	3.4	..	..	..	..	..	.. ET]
[BT 61 Congo, People's Rep.	35	56	4.4	5.4	77	56	0	0	0	0 ET]
[BT 62 Ecuador	37	~~41~~ 47	3.9	3.9	31	29	0	51	0	2 ET]
[BT 63 Jamaica	38 ~~36~~	53	4.3	2.7	77	66	0	66	0	1 ET]
[BT 64 Guatemala	34	41	3.8	4.1	41	36	41	36	1	1 ET]
[BT 65 Turkey	~~31~~ 32	46	4.9	4.0	18	24	32	42	3	4 ET]

Note: For data comparability and coverage, see the technical notes.

	Urban population				Percentage of urban population				Number of cities of over 500,000 persons	
	As percentage of total population		Average annual growth rate (percent)		In largest city		In cities of over 500,000 persons			
	1965	1984[a]	1965–73	1973–84	1960	1980	1960	1980	1960	1980
[BT 66 Costa Rica	38	45	3.8	3.3	67	64	0	64	0	1 ET]
[BT 67 Paraguay	36	41	3.2	3.4	44	44	0	44	0	1 ET]
[BT 68 Tunisia	40	54	4.1	3.8	40	30	40	30	1	1 ET]
[BT 69 Colombia	54	67	4.3	2.9	17	26	28	51	3	4 ET]
[BT 70 Syrian Arab Rep.	40	49	4.8	4.3	35	33	35	55	1	2 ET]
[BT 71 /Angola//	13	24	5.9	6.0	44	64	0	64	0	1 ET]
[BT 72 /Cuba//	58	71	2.8	1.6	32	38	32	38	1	1 ET]
[BT 73 /Korea, Dem. Rep.//	45	~~52~~ 63	4.9	4.1	15	12	15	19	1	2 ET]
[BT 74 /Lebanon//	~~50~~ 49	~~79~~ 76//	6.2	1.5	64	79	64	79	1	1 ET]
[BT 75 /Mongolia/	42	55	4.6	4.1	53	52	0	0	0	0 ET]
Upper middle-income										
[BT 76 Chile	72	83	2.8	2.4	38	44	38	44	1	1 ET]
[BT 77 Jordan	47	72//	4.7	4.7	31	37	0	37	0	1 ET]
[BT 78 Brazil	51	72	4.5	4.0	14	15	35	52	6	14 ET]
[BT 79 Portugal	24	31	1.2	2.5	47	44	47	44	1	1 ET]
[BT 80 Malaysia	26	31	3.3	3.6	19	27	0	27	0	1 ET]
[BT 81 Panama	44	50	4.1	3.1	61	66	0	66	0	1 ET]
[BT 82 Uruguay	81	85	0.8	0.8	56	52	56	52	1	1 ET]
[BT 83 Mexico	55	69	4.8	4.0	28	32	36	48	3	7 ET]
[BT 84 Korea, Rep. of	32	64	6.5	4.6	35	41	61	77	3	7 ET]
[BT 85 Yugoslavia	31	46	3.1	2.7	11	10	11	23	1	3 ET]
[BT 86 Argentina	76	84	2.1	2.1	46	45	54	60	3	5 ET]
[BT 87 South Africa	47	~~39~~ 56	2.6	3.7	16	13	44	53	4	7 ET]
[BT 88 Algeria	~~38~~ 32	47	2.5	5.4	27	12	27	12	1	1 ET]
[BT 89 Venezuela	72	85	4.8	4.3	26	26	26	44	1	4 ET]
[BT 90 Greece	48	65	2.5	2.5	51	57	51	70	1	2 ET]
[BT 91 Israel	81	90	3.8	2.7	46	35	46	35	1	1 ET]
[BT 92 Hong Kong	89	93	2.1	2.6	100	100	100	100	1	1 ET]
[BT 93 Trinidad and Tobago	22	22	0.6	1.2	..	..	0	0	0	0 ET]
[BT 94 Singapore	100	100	1.8	1.3	100	100	100	100	1	1 ET]
[BT 95 /Iran, Islamic Rep.//	37	54	5.4	5.0	26	28	26	47	1	6 ET]
[BT 96 /Iraq//	~~50~~ 51	70	5.7	5.5	35	55	35	70	1	3 ET]
High-income oil exporters										
[BT 97 Oman	4	27	10.8	17.6	..	..	..	..	..	.. ET]
[BT 98 Libya	26 ~~39~~	63	8.9	7.9	57	64	0	64	0	1 ET]
[BT 99 Saudi Arabia	39	72	8.4	7.3	15	18	0	33	0	2 ET]
[BT 100 Kuwait	~~78~~ 78	93	9.3	7.7	75	30	0	0	0	0 ET]
[BT 101 United Arab Emirates	56	79	6.7	10.4	..	..	..	..	..	.. ET]
Industrial market economies										
[BT 102 Spain	61	77	2.5	2.0	13	17	37	44	5	6 ET]
[BT 103 Ireland	49	57	2.0	2.2	51	48	51	48	1	1 ET]
[BT 104 Italy	62	71	1.4	1.0	13	17	46	52	7	9 ET]
[BT 105 New Zealand	79	83	1.9	0.9	25	30	0	30	0	1 ET]
[BT 106 United Kingdom	87	92	0.7	0.2	24	20	61	55	15	17 ET]
[BT 107 Belgium	86 ~~88~~	89	0.9	1.2	17	14	28	24	2	2 ET]
[BT 108 Austria	51	~~56~~	0.8	0.6	51	39	51	39	1	1 ET]
[BT 109 Netherlands	79	76//	0.8	-1.0	9	9	27	24	3	3 ET]
[BT 110 France	67	81	2.0	1.2	25	23	34	34	4	6 ET]
[BT 111 Japan	67	76	2.4	1.4	18	22	35	42	5	9 ET]
[BT 112 Finland	44	60	2.8	1.9	28	27	0	27	0	1 ET]
[BT 113 Germany, Fed. Rep.	79	86	1.2	0.3	20	18	48	45	11	11 ET]
[BT 114 Denmark	77	86	1.3	0.6	40	32	40	32	1	1 ET]
[BT 115 Australia	83	86	2.6	1.5	26	24	62	68	4	5 ET]
[BT 116 Sweden	77	86	1.6	0.7	15	15	15	35	1	3 ET]
[BT 117 Canada	73	75	1.9	1.2	14	18	31	62	2	9 ET]
[BT 118 Norway	37	77	3.4	2.7	50	32	50	32	1	1 ET]
[BT 119 United States	72	74	1.6	1.3	13	12	61	77	40	65 ET]
[BT 120 Switzerland	53	60	1.9	0.8	19	22	19	22	1	1 ET]
East European nonmarket economies										
[BT 121 Hungary	43	55	2.2	1.4	45	37	45	37	1	1 ET]
[BT 122 /Albania//	32	39	3.5	3.2	27	25	0	0	0	0 ET]
[BT 123 /Bulgaria//	46	68	3.2	2.1	23	18	23	18	1	1 ET]
[BT 124 /Czechoslovakia//	51	66	1.8	1.7	17	12	17	12	1	1 ET]
[BT 125 /German Dem. Rep.//	73	76	0.2	0.2	9	9	14	17	2	3 ET]
[BT 126 /Poland//	50	60	1.5	1.8	17	15	41	47	5	8 ET]
[BT 127 /Romania//	34	52	4.2	3.0	22	17	22	17	1	1 ET]
[BT 128 /USSR//	52	66	5.9	-3.0	6	4	21	33	25	50 ET]

a. Figures in italics are for years other than those specified.

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

File N448

DATE August 18, 1986

TO Mr. Lyn Squire, Senior Economist, WA1DR

FROM Chrik J. Poortman, WA1DA

EXTENSION 76226

SUBJECT 1985 GNP Per Capita Figures - Mali, Niger and Burkina

1. Reference is made to Mr. Chopra's memorandum of August 13 requesting clearance of GNP per capita estimates prepared by EPD staff.

2. We have cleared the estimates for Mali and Niger. However, population estimates for Burkina have recently been revised based on the outcome of a 1985 census. The new estimate for 1985 - as adjusted by PHN (Mr. Zachariah) - is 7.89 million as against an estimate of 6.66 million used by EPD. As a result, Burkina's GNP per capita figure for 1985 will need to be recalculated.

cc: Messrs. Hinkle, Ahlers, Heim, Zachariah, Dailly
Ms. Bendokat (o/r), Jonas (o/r)

MEMO33/ADM3
CPoortman:kmv

THE WORLD BANK INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

File

DATE: September 12, 1986

TO: Mr. C.L. Robless, Chief, ASAIN

FROM: S.M. Asher, ASAIN

SUBJECT: India - Population

1. Further to the Back-to-Office Report on our mission to India in June/July 1986, a report (attached) highlighting the need to strengthen the demographic data base for the Family Welfare Program (FWP) has been prepared by Mr. Zachariah (PHNPR). Although a section on the role of nongovernmental organizations in FWP is not yet ready, we decided to distribute the paper so that it can be earlier reviewed and incorporated in the forthcoming PHN strategy paper.

2. Family planning has been part of the 20-point poverty alleviation program of the Government of India and it is one of the subjects closely monitored by the Prime Minister's Secretariat. The Government's revised population strategy reflects this high level interests and envisages introduction of a system to measure the impact of the family welfare program in terms of reduction in fertility and mortality rates. This emphasis on demographic impact is a new development and would require considerable improvements in both the family planning statistics and the demographic data before the evaluation system could be satisfactorily implemented. The paper attached gives some recommendations for improving related policies and institutional capacity for this purpose. One of the conclusions of the report is that the Sample Registration System under the Registrar General of India would be the most viable source of data for timely monitoring of the demographic impact once improvements were made in such key areas as the sample size, accuracy and speed of data publication, but it is not the best organization to produce the needed data for evaluation. For that purpose, the paper proposes the use of Population Research Centers (PRC) under the Ministry of Health and Family Welfare by strengthening intellectual leadership at the center, creating PRCs as a national network each contributing to national priority tasks, and increasing staff capacity and financial resources.

Attachments

cc: Messrs. Denning/Mullan (PHND1); Cambridge (ASPED); Cheetham (ASADR); Lieberman (ASAIN); Zachariah, Ms. Birdsall (PHNPR)

SMAsher:abk

INDIA

STRENGTHENING THE DEMOGRAPHIC DATA BASE FOR THE FAMILY WELFARE PROGRAM

Introduction

1. From the beginning, the family welfare program in India has been target-oriented with specific demographic goals to be achieved by a specified period of time. The first target setting was introduced in the third five-year plan (1961-66). The target was a reduction in the birth rate to 25 by 1973. In the next plan (1966-69) the goal was changed to a birth rate of 25 by 1975. The target was changed again in the next five-year plan to a birth rate of 32 in 1974 and 25 by 1981. The shifts in goals continued in succeeding five-year plans as shown in Table 1.

Table 1. Demographic Targets in India's Family Welfare Program.

Plans	Targets
Third Five-year plan	BR of 25 by 1973
Fourth Five-year plan	BR of 25 by 1975
Revised	BR of 32 by 1974
Fifth plan (1974-79)	30 by 1979
	25 by 1984
Revised	30 by 1983
Sixth plan	NRR = 1 by 2001
	BR = 21 by 2001
Seventh plan	NRR = 1 by 2011
	BR = 29.1 by 1990

2. Thus, in every 5-year plan, beginning with the third one, the family planning program had definite demographic goals. Experience over the years has shown that these goals have never been achieved and successive 5-year plans were compelled to set more realistic targets. The targets under the seventh plan were essentially long-term ones. The seventh plan did not provide short-term (5-year) targets except for the plan period. But approximate short-term targets for other years could be taken from the World Bank projections as the seventh-plan targets and World Bank projection assumptions are essentially the same.

Table 2. Approximate Short-Term Targets Consistent with Seventh Plan Long-Term Targets

Period	B.R.	D.R.	G.R.	TFR	IMR	NRR
1980-85	34.2	12.7	2.15	4.8	94	1.8
1985-90	31.0	11.3	1.96	4.2	84	1.7
1990-95	27.5	10.1	1.73	3.6	73	1.5
1995-00	25.0	9.4	1.55	3.1	65	1.3
2000-05	22.5	8.8	1.37	2.7	58	1.2
2005-10	20.0	8.4	1.16	2.4	51	1.0
2010-15	18.9	8.3	1.06	2.2	45	1.0

3. The inability of achieving the targets in the past was to a large extent due to the unrealistic targets set in the various plans. This in turn was partly due to a lack of understanding of what has been the actual trend in fertility; how much more can be achieved in future under the conditions prevailing in India. To answer these questions, it is important to know: what was the actual year-by-year variation in fertility, mortality and other relevant demographic variables in recent years in India and in the various states? Why has not the fertility declined as fast as it was expected by the planners? What were the factors underlying the failure of the birth rate to decline to the targeted level? How much was it due to the shortcomings of the family welfare program, and how much due to other factors working against a decline in the birth rate? To devise plans and programs to close the gap between the targets and the achievements, answers to these questions are very important. This means a continuous monitoring of how the demographic indices have behaved and periodic analysis of why the behavior has not been as expected.

Data needed for M&E of the Demographic Impact of Family Welfare Program.

4. In deciding the data needs for monitoring and evaluation (M&E) a number of factors will have to be taken into consideration. First, the data needs for evaluation is not the same as that of monitoring. Secondly, some of the data comes from operations directed at monitoring and evaluation (e.g., family welfare program status) while others are obtained indirectly from a much broader system of data collection effort (e.g., population censuses). Thirdly, we need data not only on family planning practice and operations but also on demographic trends and socioeconomic characteristics.

On family planning (FP), a minimum set of required data are:

- number of F.P. acceptors by methods and age
- number of F.P. users collected through periodic samples surveys classified by the source of contraceptives (from F.P. program or from outside)
- continuation rate by method
- information on accessibility, quality services provided, IEC efforts, etc.

On the demographic side a minimum set is:

- number of women 15 - 49 years classified by marital status, family planning status
- birth rate, fertility rate, mortality rate
- socio-economic factors related to fertility and mortality trends

These data should be available on a continuing annual basis, and the data for F.P. should be comparable to the demographic data being for the same time period and for the same geographic subdivisions.

Present Status of Data Availability

5. The responsibility for collecting official statistics in India is shared by a number of government agencies and departments. The Registrar General (RG) of India is responsible for carrying out the decennial census and the Sample Registration System; the Department of Family Welfare is responsible for collecting the data on family planning acceptance, use, and program related factors such as the number of personnel employed for F.P., etc. While there is no particular agency charged with the responsibility of carrying out demographic sample surveys, most of these are in practice sponsored by the Department of Family Welfare. Whatever be the agency ultimately responsible for a particular system of data collection, the actual work is shared between the central government and the state governments. In addition to sponsoring, the central government meets much of the cost and the state governments meet much of the responsibility of the actual carrying out of the work in the field.

6. Data on fertility and mortality at the national level are produced by the Registrar General indirectly from census and directly from the Sample Registrations System. The censuses are carried out once in ten years and for yearly monitoring and evaluation of the family welfare program, it is not very useful. The sample registration is designed to produce yearly information on fertility and mortality and is perhaps the only viable source of demographic data for monitoring.

Sample Registration System

7. Realizing the deficiencies of the civil registration systems and the difficulty of eliminating these deficiencies in a reasonably short period, the Government of India initiated in 1965, a system of registering births and deaths in a sample of rural and urban areas of the country. This has developed into what is now commonly known as Sample Registration System (SRS). The principal objective of SRS is to provide reliable estimates of births and deaths at the national and state level every year. The methodology involves (i) continuous registration of births and deaths in a sample of villages/urban blocks by a resident part-time enumerator, (ii) a half-yearly survey by an independent full-time supervisor to record births, deaths, and updates houselist and household schedule, (iii) matching of events recorded by the registrar and the supervisor and (iv) field verification of unmatched events (v) and finalization of records of births and deaths during the period. More details about SRS are given in Annex I.

8. The SRS has developed as the best source of data on fertility and mortality at the national and state levels. Over the years it has been able to solve many of its teething problems and at present the estimates provided by SRS are considered to be quite accurate at the national level. Yet, there are several areas which require further development and improvements.

Needed Improvements in SRS

9. The principal areas in which SRS needs improvements are:

- sample size
- accuracy
- speed of publication of the results
- adequacy of information

10. Sample size. As given in Annex I, the present sample size is 6,022 units (4,147 rural units and 1,825 urban units). It is considered to be large enough to provide state-level estimates of fertility and mortality rates but is inadequate to provide district-level estimates. But the need for estimates at the district level is increasingly being felt by the Department of Family Welfare and most other users of the SRS data: "The need for obtaining district-level estimates is increasingly being recognized and was earlier considered by a Committee on Health and Family Welfare Information System constituted by the Ministry of Health and Family Welfare." 1/ "Further, the SRS does not permit blowing up the sample beyond the state level, whereas the requirement of the Planning Commission is for data at the block level, not even the district level.

1/ All India Conference of State Demographers, Pune, May, 1986, Page 81.

The sample size has therefore to be increased, the staff expanded, the training and supervision strengthened, etc." 2/

11. There is some resistance in the Registrar General's office to the idea of expanding the sample size large enough to produce district-level estimates of birth and death rates. The main reason is the fear that such an expansion would make SRS too big an operation to be controlled from a central place and that in the absence of central control, the quality of the estimates will suffer. There is no doubt that expansion of SRS to provide district-level estimate of birth rates and death rates will make it a very large operation. But this is no argument to keep it small permanently. India is a federation of states with the population of many of the states larger than that of several countries of the world, and it will be more fitting that each state takes the responsibility for SRS operation within its boundaries. With population increasing, the states will have to assume the responsibility of producing demographic statistics for themselves. Like the Indian census, which has been running smoothly for more than 100 years, it should be possible for the Registrar General's office to decentralize the SRS operations and at the same time ensure its quality from a central office.

12. Accuracy. Although the general feeling is that SRS estimates are accurate enough for planning purposes, independent evaluation of the system at the national level has never been undertaken. Studies have been carried out within the organization and they show that SRS estimates are more accurate now than in the beginning (The RG's Office estimates that corrections for birth rate were 7% during 1971-75 and 2% during 1976-80.) An independent evaluation done by the World Bank in 1979 indicated that SRS estimates for Kerala are acceptable. Before we can work out a plan to improve the accuracy of SRS, independent evaluation of the accuracy should be carried out -- especially in the northern states. This work should be entrusted to a reputable research organization capable of carrying out such an evaluation. The purpose of the evaluation study should not only be to estimate the accuracy of the rates being published, but more importantly, to know where improvements are needed and how best they can be achieved.

13. Timely Publication of Results. For monitoring and evaluation of the family welfare program (FWP), one essential requirement is the timely publication of birth rates and fertility rates. The FWP statistics are collected and published by the Ministry of Health and Family Welfare promptly, but the demographic data for the corresponding period become available several years later. The latest year for which the birth rates and death rates are available is 1983 and the latest year for which fertility data is available is 1982. On the other hand, the program statistics are available with a delay of only 1 or 2 months. In order to monitor the demographic impact of the program, the demographic data should be made available more promptly.

2/ Presidential Address: Indian Association for the Study of Population, Varanasi, 1986

14. It is possible to accelerate the publication of the results of SRS at least by a year. It will, of course, require several changes in the system of data collection, verification, and tabulation. At present, a half-yearly survey is carried out in each sample unit to make an independent recording of the births and deaths and after the completion of the half-yearly survey a matching exercise is carried out and this is followed by a field verification of unmatched or partially matched events. If the period can be reduced to 3 months instead of 6 months and if the matching can be done mechanically (with the help of a computer for example), the time required for completing the full operation can be reduced very much and the tabulation completed 6 months after the end of the year under consideration. A 3-month survey would, of course, be more expensive as this would involve twice the travel cost. But the number of events in each period will be correspondingly fewer.

15. Adequacy of the Information. Monitoring is easier than evaluation. One cannot complain too much about the adequacy of the presently available SRS data for monitoring demographic trends, although the data come out late and are of unknown quality. This is not the case with evaluation. SRS does not provide sufficient data to answer questions such as: why is it that the Indian birth rate has remained constant at 34 during the past 7 or 8 years while age at marriage has increased and the population of couples effectively protected has also increased? Why is it that some states such as Gujarat, which has a high contraceptive prevalence rate also has a high birth rate? Why is it that birth rate in some northern states has not declined as much as in some southern states although the per capita expenditure on family welfare is essentially the same? etc. To evaluate fertility trends, we need to have information not only on FWP, but also on all the determinants of the fertility trend. If the birth rate has not declined in the past 7 or 8 years in spite of a very considerable increase in the contraceptive prevalence rate, the reason may be that other determinants of the birth rate could have worked in the opposite direction.

16. The data needed for an adequate evaluation of fertility trends is too complex to be handled in SRS which should be reserved for providing accurate, timely information for monitoring fertility and mortality trends. There are better alternatives for evaluation studies. One such alternative is to use the network of population research centers (PRCs).

Population Research Centers

17. The Ministry of Health and Family Welfare (MHFW) has established 17 population centers to carry out demographic and communication research connected with health and family welfare programs. As the list in Annex II indicates, these 17 PRCs, are distributed all over India (in 16 states). Most of the PRCs are located in universities or other research organizations which ensure their autonomy in the conduct of research.

18. The research agenda of these centers is coordinated by the Department of Evaluation in MHFW, which is assisted in this effort by a Population Research Advisory Committee (PRAC). The PRAC meets from time

to time to lay down the priority areas for research keeping in view the needs of the Family Welfare program. Some of the important studies conducted by the PRCs in recent years is listed in Annex III. The Ministry has proposed the following topics as priorities for the PRCs and other similar institutions for the next couple of years:

- continuation rates for different methods among different groups
- the use-effectiveness of various methods
- demographic impact of contraceptive use including re- evaluation of the connection between the prevalence rate and the net reproduction rate (NRR)
- estimation of birth and death rates and contraceptive prevalence at district level
- apparent preference for terminal over spacing methods
- family planning and maternal and child health (MCH) program drop-outs
- reasons for underutilization of MCH and FP services in rural areas
- quality of health and FP services and public's response thereto
- impact of MCH services on infant and maternal mortality
- effectiveness of mass media in increasing acceptance of FP

In addition, the PRCs are encouraged to carry out evaluation of the quality of program statistics.

19. Not all PRCs are fully developed. A fully developed center has a sanctioned staff of 22 persons including 4 professional researchers and 4 research analysts. A semi-developed center has a staff of 9. (See Annex IV for details). In addition to staff salaries, each center has an operational budget for supplies, data processing, staff travel, contingencies, etc. with a maximum of Rs. 50,000 ($4,100). In actual practice, the operational budget is too small (5 to 7 percent of the total budget) to be of use for the center to carry out any significant research program. Almost the entire budget is now used up for staff salary leaving very little for library, equipment, transportation, supplies, etc. -- things essential for carrying out research. Research cannot be done without a considerable increase in the discretionary funds at the disposal of these institutions.

20. Although the PRCs have been in existence for several years (in some cases as much as 25 years) they have not made significant contribution to demographic research in India. The fault is not entirely the lack of funds or trained staff. The principal problem is a weakness in the central leadership. Whatever coordination which exists now is for

bureaucratic purpose -- fiscal control, etc. Intellectual leadership is lacking. The 17 centers work as individual centers -- not as a network of research organizations for any national purpose. When the research findings from these centers are compiled by the MHFW, they are given separately for each center and for each study. There is not one study which is carried out jointly by several of the centers as a national project.

21. The PRCs offer an excellent network of research centers for carrying out demographic research of national interest. The major centers (Delhi, Baroda, Bangalore, Calcutta, etc) have the minimum staff required for a viable specialized research organization and many of the senior staff are very well qualified for the job. What is needed is an agreed program of research at the national level, an acceptance of the centers as a network to carry out national projects, and sufficient funds for field work and other aspects of demographic research. In addition to the national projects, there should, of course, be state level projects which are of particular interest to the states in which the centers are located.

Recommendations to Improve Demographic Data for M and E of Family Welfare Program

22. The principle vehicle by which demographic data in India can be improved to meet the needs of M and E of the family welfare program is the SRS and the network of PRCs. Of these, the SRS should be developed to serve the purpose of monitoring, and the PRC should be developed for evaluation. The SRS is already serving the purpose of monitoring to a large extent. Needed improvements are:

- shortening the lag between the enumeration/reenumeration/field checkings and actual publication of demographic indices. This can be done by decentralizing the operation, conducting the enumeration in a 3-month cycle (with the necessary increase in staff and budget); and computer matching, tabulation, etc

- enlarging the sample to enable SRS to produce district-level estimates of the birth rate and the death rate. This would require decentralizing the operations by making the states responsible for all SRS related operations and the RG's office taking the responsibility for the overall coordination and quality control. This would also increase the cost of SRS very considerably

- improving the accuracy of the system. This would require a periodic assessment of the accuracy of the system by an independent organization, with recommendation on how the accuracy can be improved

23. Most of the PRCs are not working properly and they would require considerable strengthening and central guidance. Specific recommendations to improve the working of the PRCs so as to enable them to carry out evaluation of family welfare program are:

- creating a central unit (in MHFW or Family Planning Foundation or Indian Council for Social Science Research) to provide intellectual leadership for national purposes

- strengthening the staff and infrastructure of all the PRCs or selected PRCs (selected on a regional basis)

- providing funds specifically earmarked for research leading to evaluation of the demographic impact of the family welfare program

Possible Bank Assistance

24. The Bank could play a significant role in initiating steps to establish these long-term data needs of the country by improving the existing policies and institutional capacity. For instance, for the SRS, the Bank could assist the states in taking the responsibility of carrying out the SRS within its boundary, enlarging the sample to provide district-wise estimates, increasing the staff, equipment and budget to enable the SRS to cut the time lag between initial enumeration and publication of results, and contracting an independent research organization in the country to undertake independent evaluation of the SRS and give recommendations for its improvement. For the PRCs, the Bank could extend assistance to:

- create a central leadership to prepare a national priorities in research, to utilize PRCs as a national network each contributing components of national priorities, to preserve and make available to interested organizations PRC-produced demographic and FP data, and to organize needed training for PRC staff from time to time

- increase staff, and discretionary funds for research, library, and equipments in the PRCs

- improve office automation so that each professional has an office and each PRC has a well-equipped library, data processing facilities and office space.

Annex I

Sample Registration System of India[1]

The increasing acuteness of the population problem in India and the deficiencies in the statutory registration system have greatly intensified the need for quick and reliable estimates of birth and death rates on a current and continuous basis. The population census provides decadal vital rates; it does not provide a measure of the change in population form year to year. To measure short-term changes in the growth of population for projecting its future trends and to evaluate the results of the family planning programmes, there is need for resorting to alternate sources of data. One of these sources is civil registration system. There are various other alternate methods based on the application of sampling techniques which have been tried and tested in many developing countries. Such methods include single and multi-round retrospective surveys and the dual record system. In the absence of dependable vital rates from civil registration, the Office of the Registrar General, India initiated the sample registration of births and deaths in India, popularly known as sample registration system (SRS) in 1964-65.

1.1 The main objective of SRS is to provide reliable estimates of birth and death rates at the state and national levels for rural and urban areas separately. However, SRS also provides various other measures of fertility mortality.

1.2 The field investigation under SRS consists of continuous enumeration of births and deaths in a sample of villages/urban blocks by a resident part-time enumerator, preferably a local teacher, and an independent six monthly retrospective survey by a full-time supervisor. The data obtained through these two sources are matched. The unmatched and partially matched events are reverified in the field to get an unduplicated count of correct events. The advantage of this procedure, in addition to elimination of errors of duplication is that it can lead to a quantitative assessment of the sources of distortion in the two sets of records. In that way it is a self-evaluating technique.

Basic structure of the system

1.3 The main components of SRS are:

(i) Base-line survey of the sample unit to obtain usual resident population of the same area;

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[1] Source: Sample Registration System 1982. Office of the Registration General, India, 1985.

(ii) Continuous (longitudinal) enumeration of vital events pertaining to usual resident population by the enumerator;

(iii) An independent half-yearly survey for recording births and deaths occurred during the half-year under reference and up-dating the houselist and household schedule by the supervisor;

(iv) Matching events recorded during continuous enumeration and those listed during the course of the half-yearly survey.

(v) Field verification of unmatched and partially matched events.

1.4 Baseline Survey: The base-line survey is carried out prior to the start of continuous enumeration. This involves house numbering and houselisting and filling in of household schedule. Wherever a sound system of house numbering exists the same is adopted. Otherwise, the house numbering is done by the enumerator with help of chalk, tar, etc. at a conspicuous place near the entrance to the house. The enumerator prepares a notional map showing important landmarks and location of the house covered by the sample in form 1 and fills in the household schedule (form 2) wherein he records the residential status and demographic particulars of each individual residing in the household e.g. name, sex, age, marital status and relation to head of household. Visitors to the household on the specified date who are likely to stay in the household for a fairly long period are also listed and their residential status is shown as 'V' as against 'UR' for usual residents. The inmates of public institutions like hotels, inns, schools and hospitals are excluded, but households living permanently within the compound of such institutions are covered.

1.5 Enumeration: The enumerator maintains a birth record (form 5) and death record (form 6) in respect of his area. The enumerator is expected to record all births and death occurring within the sample unit, as well as those of the usual residents occurring outside the unit. Events to visitors occurring within the sample unit are also listed, but these are not taken into account while calculating rates. Thus the events to be enumerated by the enumerator are those pertaining to:

(i) Usual residents inside the sample unit

(ii) Usual residents outside the sample unit

(iii) Visitors inside the sample unit

1.6 For ensuring complete netting, the enumerator uses different means to keep himself informed of the occurrence of vital events in the sample unit. The enumerator takes the help of the village priest, barber, village headman, midwife and such other functionaries. He contacts those informants at frequent intervals and collects information about the occurrences of births and deaths. On being informed about the occurrence of an event, the

enumerator visits the concerned household and records the prescribed particulars. The enumerator also keeps in touch with other socially important persons and visits local or nearby hospital, nursing homes, cremation or burial grounds, at frequent intervals to keep himself informed about the occurrence of events. He is required to maintain a list of pregnant women so as to help netting all the birth events. Despite all these efforts, the enumerator may fail to have information about some of the events. So he is required to visit all the households once in each quarter and ensure whether all the events have been recorded or not. In the urban areas, the enumerator is required to visit each household during a moth so as to net all births and deaths pertaining to his area.

1.7 Half-yearly survey: Half yearly survey is carried out independently in each sample unit by a full-time supervisor. The supervisor visits households in the sample unit and records the particulars of births and deaths pertaining to usual residents and visitors (only those occurring within the sample unit) which had occurred during the half-yearly period under reference. Simultaneously, he updates the house list and household schedule (initially filled-in by the enumerator) by making suitable entries for each birth, death or migration. In carrying out this survey he does not have access to the birth and death records of the enumerator which are withdrawn from the field before the supervisor is deputed for the half-yearly survey. Also an overlapping reference period of one year is adopted in the survey in order to net the events which might have been missed in the previous half-yearly survey.

1.8 Matching: After the completion of the half-yearly survey, the forms 3 & 4 filled-in by the supervisors are compared with the forms 5 & 6 filled-in by the enumerators. This is done either at the state or district headquarters. Each entry in the enumerator's and supervisor's records is matched item by item and events are classified as fully matched, partially matched and unmatched. The items generally considered for matching are location of the household i.e., name of the head of house-hold and housenumber, name of mother (for birth) and name of deceased (in case of death), residential status, sex and month of occurrence.

1.9 Field verification of unmatched and partially matched events. Every event whether unmatched or partially matched is verified by visit to the concerned household. This is done either by a third person or jointly by the supervisor and the enumerator, depending upon the availability of staff.

Sample design

1.10 The sample design is stratified simple random sampling. In the rural areas, stratification has been done on the basis of natural division and population size classes. Each natural division within a state has been considered as a stratum and further stratification has been done by grouping the villages into population size classes. In the urban areas, stratification has been done on the basis of population size of cities/towns.

1.11 The sample unit in rural areas is either a village (if the population is less than 2000) or a segment of a village (if the population is 2000 or above). The segmentation of large size villages was found necessary to limit the population to a manageable size. This was done on the basis of clearly identifiable boundaries. The sample unit in urban areas is a census enumeration block with an average population size of 750. Statement A shows the sample size in rural and urban areas different states.

Organization

1.12 The SRS is being implemented through the Directorates of Economics & Statistics/Directorates of Health Services/Directorates of Census Operations. The implementing agencies for the rural sample are the respective Directorates of Economics & Statistics in the State of Kerala, Madhya Pradesh and Maharashtra; Directorates of Health Services in Andhra Pradesh, Gujarat, Haryana, Orissa, Punjab, Tamil Nadu; Directorates of Census (except Kerala) Operations in these/ the remaining states/union territories. The implementing agencies for the urban sample are the Directorates of Health Services in Haryana, Orissa and Punjab; and the Directorates of Census Operations in the remaining states/union territories.

1.13 For continuous enumeration, there is an enumerator for each sample unit, who is usually a resident teacher employed on a part-time basis and is paid a small honorarium for this purpose. However, in certain states, fulltime enumeration (Assistant Compilers) have been appointed for enumeration work in the urban areas in large cities. One full-time enumerator is usually assigned the work of enumeration in 6 to 8 sample units. For supervision and conduct of half-yearly surveys, there are full-time supervisor (Computers) at the state headquarters. One computer is usually assigned a set of 10 units for conducting half-yearly surveys. The state headquarters have also a complement of other staff necessary for planning and organizing various field operations, training of the field staff, effecting proper supervision and control, ensuring regular flow of returns from the field staff, forwarding of various returns to the Office of the Registrar General, India and undertaking certain minimum tabulation.

1.14 At the national level, the Vital Statistics Division of the Office of the Registrar General, India co-ordinates the implementation work, formulates and prescribes necessary standards, provides necessary instructions and guidance, undertakes tabulation and analysis of data and their dissemination.

Training and supervision

1.15 Each enumerator is given the necessary training before he starts the work. This is followed by periodic training. In addition, he is provided with a manual of instructions for day to day consultation in order to sort out any difficulties during the course of work. Each computer-supervisor is also given the necessary training with a view to enable him to carry out the supervision work and conduct the half-yearly surveys properly and efficiently. Besides, each supervisor is provided with a manual of instructions for this purpose. Various state officials associated with the

instructions for this purpose. Various state officials associated with the implementation of the SRS are also given necessary training. There is a manual for the state headquarters which provides detailed instructions and guidance with regard to the various stages of work involved at the state level. The manual is very comprehensive and covers all aspects of the system.

1.16 Supervision forms an important component of SRS. This is regularly done by the computer supervisors. Each computer supervisor is expected to supervise the enumeration work in a set of 10 sample units in each month. In addition, other staff and officers at the state headquarters also undertake visits to sample; units and inspect the work at the field level.

Flow of returns

1.17 An enumerator is required to send to the state headquarters on the first of each month, a monthly report (form 10) in duplicate for the previous month. This report is copied from the birth and death records. On the basis of the monthly reports received from the sample units, the state headquarters are required to prepare a consolidated monthly report (form 10A) and forward the same to the office of the Registrar General, India within one month following the month to which the report relates. The monthly reports (form 10) for the individual units remain at the state headquarters till the results of the half yearly survey are finalized. These are corrected in the light of the results of the half yearly survey and matching & field verification operations associated therewith. The finalized form 10 after necessary corrections and inclusion of additional events recorded during the survey is sent to the Office of the Registrar General, India along with the half-yearly survey results in form 11.

Estimation procedure

1.18 Estimation of births, deaths and population for both rural and urban areas are obtained using unbiased method of estimation. The estimates of birth and death rates are obtained as the ratios of the estimated births to the estimated population and the ratios of estimated deaths to the estimated population, respectively.

Annex II

List of Population Research Centres

Population Research Centre
Faculty of Sciencies,
M.S. University,
Loymanya Tilak Road,
Baroda, Gujarat 390 002

Population Research Centre
Institute of Economic Growth,
University of Delhi,
Delhi 110 007

Population Research Centre,
Institute of Economic
Research, Vidhyagiri,
Dharwad-4, Karnataka 580 004.

Population Research Centre,
Department of Economics,
Lucknow University,
Lucknow (U.P.) 800 005.

Population Research Centre,
Gokhale Institute of Polictics
and Economics,
Pune-411 004

Population Research Centre,
Institute of Social and
Economic Change,
Nagarbhavi P.O.,
Bangalore - 560 072.

Population Research Centre,
Department of Sociology,
Punjab University,
Chandigarh 160 014.

Population Research Centre,
Post-graduate Deptt. of
Economics,
Kashmir University,
Srinagar (J&K)

Population Research Centre
The Gandhigram Instt. of Rural
Health and Family Planning,
P.O. Ambathurai R.S.
Madurai Distt. Tamil Nadu.624309

Population Research Centre,
Directorate of Economics and
Statistics,
Govt. of Madhyda Pradesh,
Bhopal 462 004.

Population Research Centre,
Utkal University,
Bhubaneshwar,
Orissa 751 004.

Population Research Centre,
Dept. of Statistics,
Gauhati University,
Gauhati 781 014 (Assam)

Population Research Centre,
Mohanlal Sukhadia University,

Population Research Centre,
Deptt. of Demography and
Population Studies,
University of Kerala,
Kariavattom 695 581 (Kerala)

Population Research Centre,
Indian Sratistical Institute,
203, Barracapur Trunk Road,
Calcutta -700 035.

Annex III

LIST OF STUDIES COMPLETED BY THE POPULATION RESEARCH CENTERS DURING 1985

I. PRC - Bangalore

1. Industrialization and Population Growth in Bangalore -- Agglomeration.
2. A study of laparoscopic sterilizations in Karnataka.
3. Employment planning and Human Resource Development in Karnataka.
4. Evaluation of MCH and Family Planning Programme.
5. Population Projections for Karnataka -- 2001 AD.
6. Cost efficiency of mass camps: A methodology.

II. PRC — Baroda

1. Role of Health Delivery Services on the Acceptance of Family Planning -- Phase I.
2. Evaluation of Health Guide Scheme -- A National Level Study.
3. Baroda Reporter.

III. PRC — Bhubaneshwar

1. Evaluation of Family Planning Programme.
2. Study of drop-outs; reasons for drop-outs and continuation rates for Lippes loop, Copper-T and Oral Pill.

IV. PRC — Bhopal

1. Survey on differential impact of FP and KAP and MCH programme in the District of Char, Raigarh, Shivpuri and Sidhi.
2. A special study to assess the average number of children born and surviving per women in three broad age groups viz, 15-24, 25-34, 35-44 years.

V. PRC — Chandigarh

1. Evaluation of Family Welfare Programme.
2. Evaluation of Multipurpose Health Worker Scheme.
3. Evaluation of Health Guide Scheme.

VI. PRC — Delhi

1. Incidence of Malaria; Based on record in a PHC in Haryana.

VII. PRC — Dharwad

1. District level mapping for Karnataka State.
2. Current evaluation of Family Welfare acceptors and non-acceptors in Shimoga District.

VIII. PRC — Patna

1. An estimation of the correct age distribution of the Indian Population Based on 1981 census.
2. A study of completed fertility in six Villages of Bihar.

IX. PRC — Pune

1. Current evaluation of F.W. acceptors and non-acceptors in the district of Satara and Sangli.
2. Current evaluation of FW and MCH Programme in rural areas of Nasik District.
3. Population Projections in Aurangabad Corporation.
4. Population Research Priorities for India.
5. Summary paper on report writing.

X. PRC — Trivandrum

1. Preparation of a bibliography on relationship between education and fertility.

2. Preparation of bibliography on internal migration in India.

3. Desired family size as a motivating factor in family planning.

XI. PRC — Lucknow

1. Fertility and FP among white-collar workers: A study of a secretariate employees of Uttar Pradesh Government.

2. Study of fertility pattern in Lucknow city with special reference to child mortality experience.

3. Current evaluation of Family Welfare Programme on the basis of performance for 1982-83.

4. Reach and effectiveness of communication media in family welfare programme with special reference to Uttar Pradesh.

XII. PRC — Udaipur

1. A study of the communication factors in the acceptance of Family Welfare Programme in Udaipur District.

2. Evaluation of Family Welfare Programme of two Rural Family Welfare Centers in Chittorgarh District.

XIII. PRC — Gandhigram

1. Promoting use of condom in rural communities -- An action research proposal (Phase II).

2. Assessment level of infant mortality and its impact on family building.

3. Economic utility of children and its relationship to family size desires fertility and practice of contraception.

XIV. PRC — Waltair

1. Caste differentials in the characteristics of acceptors and non-acceptors of family planning.

XV. PRC — Gauhati

1. Evaluation of family welfare programme of Dibrugarh District.

XVI. PRC — Calcutta

1. Education and Family Welfare Planning in rural Bihar.
2. Construction of life tables in rural West Bengal.
3. Differentials of fertility change.
4. Health development and fertility change.
5. Distribution of households by family type composition.
6. Occupation distribution of persons in rural Bihar.
7. Education development in rural Bihar.
8. A pilot study on collection of live births.
9. Attitude towards practice of family planning methods.

LIST OF STUDIES IN PROGRESS IN POPULATION RESEARCH CENTERS, 1986

I. PRC — Bangalore

1. Incentives and disincentives for promoting Family Planning.
2. Evaluation of MCH and FP.

II. PRC — Baroda

1. USAID Baseline Survey in Gujarat.
2. Inter-relationship between Rural Development and Fertility.
3. Role of Health Delivery Services in the acceptance of family planning -- Phase II.
4. Fertility, mortality and contraceptive prevalence in Dang District.

III. PRC — Bhubaneswar

1. Study on techniques of spacing of children in relation to family classified.

2. Evaluation of performance of FP workers.

3. Study on identification of the socio-cultural factors leading to the practice of child marriage.

4. Study on the factors leading to high Population Growth in certain districts of Orissa during 1971-81.

5. Evaluation of FW and MCH Programme.

IV. PRC — Bhopal

1. Study on attitude of Health Workers, Village Health Guide and Dais in Madhya Pradesh.

2. Evaluation of Family Welfare Programme in two PHCs of a district.

3. Preparation of crude Health indices of birth rate, death rate and infant mortality rates.

V. PRC — Chandigarh

1. Migration and Population Growth.

2. Correlates of Population Growth.

3. Evaluation of Family Welfare Programme in Solan District of Himachal Pradesh.

4. Role of incentives and disincentives in the acceptance of Family Planning.

VI. PRC — Delhi

1. Growth of Population in individual towns of India.

2. Infant and Child mortality.

3. A note on the Civil registration in India. Some problems and suggestions for improvements.

4. A critical assessment of the child marriage restraint act as modified in 1978.

5. Pilot survey of the attitude towards the implementation of child marriage restraint act.

VII. PRC — Dharwad

1. Constraints on age at marriage of girls in rural Dharwad.

2. Current evaluation of Family Welfare acceptors in Uttar Kannada district.

3. District level estimates of fertility, mortality and contraceptive prevalence.

VIII. PRC — Patna

1. A study on evaluation of family welfare programme of sasaram PHC.

2. A study on completed fertility.

3. Evaluation of FW and MCH case in Bihar.

4. A follow up study of acceptors of IUD.

5. Perception of newly married couple towards marriage family size and family planning.

6. Changing educational status of women and their role in acceptance of F.W.P.

IX. PRC — Pune

1. Assessment of the level of health consciousness and utilization of health services in rural areas of Maharashtra.

2. IUD acceptance in Pune.

3. Correlates of FP acceptance: A multivirinate analysis based on the data from NFMS Maharashtra.

4. Indirect evaluation of fertility.

5. Fertility differentials by socio-demographic indicators.

6. Demographic hand book of district in Maharashtra.

7. A study of incentives and disincentives in the FP programme in India.

8. Factors associated with differentials in growth rates of district in Maharashtra 1971-81.

9. Current evaluation of FW and MCH programme in urban areas of Nasik District.

10. Evaluation of MCH and FP programme in same selected slums in Pune City.

11. Revision of the report on NFMS Maharashtra 1980.

X. PRC — Trivandrum

1. Developing methodology to measure infant mortality.

2. Family Welfare evaluation.

3. Administration of contraceptive distribution in Kerala.

4. Opinion of the public as well as family welfare workers on incentives now being given by the Government.

5. Demographic survey of Cannonore District.

XI. PRC — Lucknow

1. Study of rural-urban migration in Uttar Pradesh.

2. Health care, child survivorship and family building in rural Uttar Pradesh.

3. Determinants of family planning acceptance in Uttar Pradesh.

4. Correlates of age at marriage in India with special reference to literacy level: An interstate analysis.

5. Female status in Uttar Pradesh and India: a comparative study.

6. Socio-cultural factors leading to perpetuation of child-marriage in rural communities of Uttar Pradesh.

7. Evaluation of family welfare and MCH programme.

XII. PRC — Udaupur

1. Evaluation of FW programme of two PHCs of Ajmer District.
2. Infant mortality in scheduled castes and tribes in Rajasthan.
3. Nuptiality pattern in scheduled castes and scheduled tribes in Southern Rajasthan.
4. Evaluation of family welfare programme in Bhilwara District of Rajasthan.

XIII. PRC — Gandhigram

1. Minority status, fertility and practices: A study of Muslims and Christians in Tamil Nadu.
2. Evaluation of FW Programme in Tanjaveur District.
3. Study to identify the average number of children born and surviving per women in three broad age groups viz. 15-24 years, 25-34 years, 35-50 years.
4. Value orientation in relation to fertility and contraceptive behavior.
5. Family size preference achievement motivation and contraceptive behavior.
6. Study to know the attitude of the public as well as family planning workers towards incentives and disincentives in the family planning program as provided at present.
7. Estimating birth, death and contraceptive prevalence rates at District level.
8. Pattern and correlates of breast feeding.

XIV. PRC — Waltair

1. District-wise evaluation of FW and MCH programme: A study of acceptors and non-acceptors in Krishna District.
2. Socio-cultural factors leading to the preparation of the practice of child marriage.

XV. PRC — Gauhati

1. Evaluation study on laparoscopic programme in Kamrup District, Assam.

XVI. PRC — Calcutta

1. Estimation of fertility and mortality (indirect method).
2. Fertility trend in rural Bihar around Patna.
3. Couple formation in rural West Bengal.

Annex IV

PRC STAFF ORGANIZATION

Title	Number of Posts
Fully Developed	
Director	1
Joint or Deputy Director	1
Research Officer	1
Social Scientist	1
Librarian	1
Research Investigator	4
Field Investigator	4
Statistical Clerks	4
Office Supervisor	1
Secretary	1
Service Personnel	3
	22
New Centers	
Senior Research Officer	1
Research Officer	1
Research Investigator	2
Research Assistant	2
Clerk Typist	1
Service Personnel	2
	9

THIS BOOK CONTAINS INCOMING:

1. Correspondence **
2. Memoranda
3. Routed Reading Materials
4. cc's to Zachariah from outgoing mail

**Incoming correspondence which has been responded to will be in Zachariah's Chron book with pink file copy of response attached to it.

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION
OFFICE MEMORANDUM

DATE : June 6, 1986

TO : David J. Radel, PHND2

FROM : K.C. Zachariah

EXTENSION : 6-1579

SUBJECT : Nigeria: Demographic Indicators

A comparison between the population estimates and projections prepared by the U.S. Bureau and those of the Bank indicates that the principal differences lie in the TFR, growth rate and historical data on population totals (periods before 1985). The Bank population totals are smaller, but its TFR and growth rate are higher. As a result, Bank projection of totals remain smaller till 1990 and higher from 1991 onwards. A comparison between the two sets of estimates is given below:

	Year	Bank	US/BOC
TFR	1980-85	6.9	6.6
e (Both)	1980-85	48.5	45.3
CBR	1980-85	49.6	47.2
CDR	1980-85	17.1	18.6
Mig.Rate	1980-85	0	- 1.1
Growth Rate	1980-85	3.25	2.75
Population	1980	84,732	90,035
Population	1985	99,669	102,783

A few years ago, Althea Hill made an analysis of Nigerian demographic situation and concluded that the TFR should be about 6.9 which was the same as the UN estimate at that time. The country economist for Nigeria wanted us to use the UN estimate of TFR and the official estimate of total population. This, in brief, is the history of the Bank data.

I have no reason to believe that the Bureau's estimate of TFR is more accurate than the Bank estimate. During the past 4 to 5 years the only new fertility data which came to my attention is that from the WFS. This gave a TFR of 5.7, which is much lower than either the Bank estimate (6.9) or the U.S. Census Bureau estimate (6.6). We concluded that the Nigerian WFS was unreliable. Therefore, we continued to use the official estimate of total population and the UN estimate of TFR.

Recently UN has revised its TFR upwards to 7.1. We have not changed ours, because UN did not provide us with any hard evidence for such an increase. Growth rate is an outcome of the assumptions of TFR. There is, therefore, no point in discussing the difference in growth rate without discussing the TFR.

If the U.S. Bureau has any new information on TFR we will be happy to evaluate them and adopt them in our work. Therefore, your suggestion for a discussion with them is welcome.

cc: Ed. Brown, Khan, Over, Scheyer
Althea Hill, My Vu, Ho, Sirur, Mehra, Birdsall

UNITED NATIONS NATIONS UNIES

POSTAL ADDRESS—ADRESSE POSTALE: UNITED NATIONS, N.Y. 10017
CABLE ADDRESS—ADRESSE TELEGRAPHIQUE: UNATIONS NEWYORK

REFERENCE:

13 November 1985

Dear Dr. Zachariah,

As you requested in our telephone conversation, I am pleased to enclose a 5 1/4" diskette (IBM DDS format) with the FORTRAN 77 source listing for the computer program MATCH. The program will produce a United Nations or Coale-Demeny model life table consistent with a chosen mortality pattern, mortality level and sex. Documentation is enclosed. The program is a mainframe version so if you are running it on a microcomputer, your programmer will probably need to add OPEN FILE statements.

Please contact me if I can offer additional help.

Sincerely yours,

Larry Heligman
Population Affairs Officer
Population Trends and Structure Section
Population Division

Dr. K.C. Zachariah
Population and Human Resources Division
Development Economics Department
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

Name of procedure: MATCH

Purpose of procedure: Calculates and prints out United Nations or Coale-Demeny model life tables corresponding to given levels of mortality.

Description of technique: The user must designate the model pattern (any of the 5 United Nations, 4 Coale-Demeny patterns or an external model supplied by the user) and sex desired. The United Nations principal component equations or Coale-Demeny regression equations are then used with an iterative procedure to find the model corresponding to a given level of mortality. However, because of potential extrapolation problems, model life tables are calculated only when life expectancy at birth is between 20 and 80 years. The mortality level is specified by the user by designating a mortality value for one of four life table functions (${}_nm_x$, ${}_nq_x$, l_x or e_x) for any one of the age groups. The iterative procedure is carried out by the subroutine MATCH, which calls the subroutines LIFTB and, when necessary, ICM for construction of the model life table itself. For a more detailed description of the methodology, see the descriptions of these subroutines in Chapter 4. The model life table is presented as computer output; the life table columns are as given in the description of the main program LIFTB in this chapter.

Data required: the following information is required for running the main program.

Mnemonic	Definition and comments
$LABEL_1$	A data description of up to 40 characters, to be included in the heading at the top of the page of output.
NSEX	Indicates whether the life table refers to the male or female sex. NSEX = 1 indicates males; NSEX = 2 indicates females.
NREG	Indicates the model life table pattern to be used. The codes are: 0 = empirical age pattern 1 = UN Latin American model 2 = UN Chilean 3 = UN South Asian 4 = UN Far East Asian 5 = UN General 6 = Coale-Demeny West 7 = Coale-Demeny North 8 = Coale-Demeny East 9 = Coale-Demeny South If NREG = 0 the user is supplying his own average pattern of mortality to be used as a model (see AVE below). The United Nations principal component equations are then used to adjust this pattern to the desired mortality level.

Mnemonic	Definition and comments
$LABEL_2$	This variable is used only if NREG above equals zero. It is a name for the model supplied by the user and is included in the table heading.

The following variables, NPARM, NAGE, CMP, CMP2 and RNGE, indicate the life table column, age group and level(s) of the model life table(s) to be chosen.

NPARM	NPARM indicates the life table column: $1 = {}_nm_x$, $2 = {}_nq_x$, $3 = l_x$, $4 = e_x$.
NAGE	NAGE indicates the age group of interest: 0 = age group 0-1, 1 = 1-5, 5 = 5-10, 10 = 10-15, ..., 80 = 80-85. When NPARM = 3 (and only when NPARM = 3), NAGE may also take on the values 2, 3 or 4 to indicate matching on l_2, l_3 or l_4.
CMP CMP2 RNGE	CMP indicates the mortality value being matched. When a series of model life tables is desired, values for CMP2 and RNGE must also be given. In this case, CMP will be the mortality value for the first model life table, CMP2 for the final model table, and RNGE the increment. A maximum of 50 tables can be requested through the CMP2-RNGE option. For example, if a series of model life tables is desired in which e_5 varies from 40 to 60 years at 5 year intervals, we would code NPARM = 4, NAGE = 5, CMP = 40.0, CMP2 = 60.0 and RNGE = 5.0.

Mnemonic	Definition and comments
AVE	This variable is used only if NREG above equals zero. It consists of model ${}_nq_x$ values supplied by the user. The values must be given for age groups 0-1, 1-5, 5-10, ... As a minimum, ${}_nq_x$ values must be given through age group 60-65; as a maximum through age group 80-85. As these data are read in on a "per-person" basis, each value must be in the interval 0 to 1.

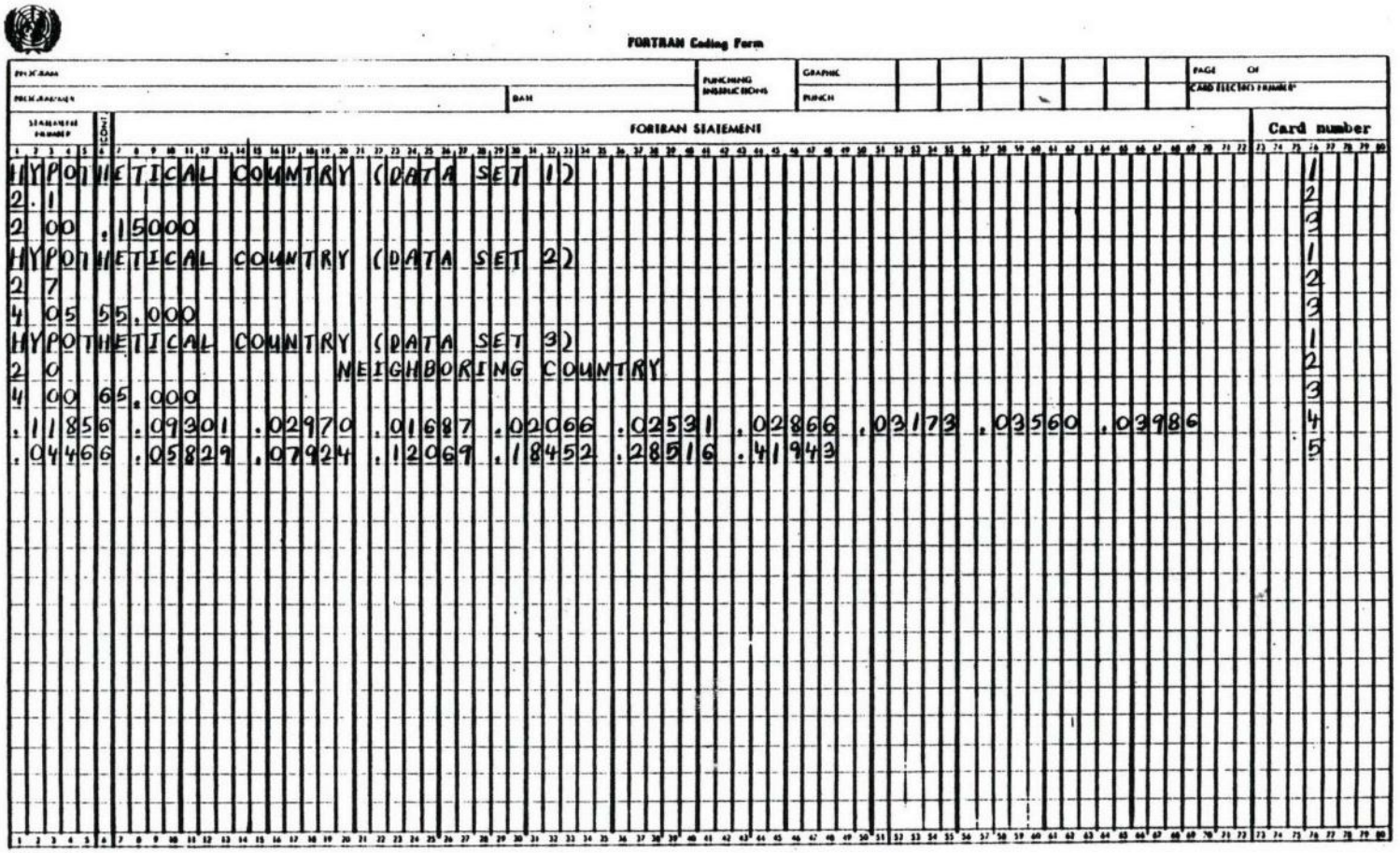
Data input: The required data should be punched onto cards according to the following format.

Card	Mnemonic	Columns	Special comments
1	$LABEL_1$	1-40	
2	NSEX	1	
	NREG	3	
	$LABEL_2$	20-51	

Card	Mnemonic	Columns	Special comments
3	NPARM	1	
	NAGE	3-4	Value must be punched to end in column 4.
	CMP	6-11	Decimal point must be punched.
	CMP2	13-18	Decimal point must be punched.
	RNGE	20-25	Decimal point must be punched.
4	AVE	1-6	For age group 0-1. Decimal point must be punched.
		8-13	For age group 1-5. Decimal point must be punched.
		15-20	For age group 5-10. Decimal point must be punched.
		.	
		.	
		.	
		64-69	For age group 40-45. Decimal point must be punched.

Card	Mnemonic	Columns	Special comments
5	AVE	1-6	For age group 45-50. Decimal point must be punched.
		.	
		.	
		.	
		22-27	For age group 60-65. Decimal point must be punched.
		29-34	For age group 65-70. Decimal point must be punched. Leave blank if fewer values are given.
		36-41	For age group 70-75. Decimal point must be punched. Leave blank if fewer values are given.
		43-48	For age group 75-80. Decimal point must be punched. Leave blank if fewer values are given.
		50-55	For age group 80-85. Decimal point must be punched. Leave blank if fewer values are given.

Examples: In the following example, model life tables are calculated corresponding to three different sets of input data. In the first set of data, a United Nations model life table for the Latin American pattern, females, corresponding to an infant mortality rate of 150 infant deaths per 1000 live births is requested. In the second data set, a North region Coale and Demeny female model life table with a life expectancy at age 5 of 55 years is requested. In the third data set, a set of ${}_nq_x$ values supplied by the user based on a neighbouring country is given, and the first component vector of the United Nations models is used to adjust them to correspond to a life expectancy at birth of 65 years.



FORTRAN Coding Form

```
HYPOTHETICAL COUNTRY (DATA SET 1)
2.1
2 00  .15000
HYPOTHETICAL COUNTRY (DATA SET 2)
2 7
4 05 55.000
HYPOTHETICAL COUNTRY (DATA SET 3)
2 0                  NEIGHBORING COUNTRY
4 00 65.000
.11856  .09301  .02970  .01687  .02066  .02531  .02866  .03173  .03560  .03986
.04466  .05829  .07924  .12069  .18452  .28516  .41943
```

Card number

1 2 3 1 2 3 1 2 3 4 5

IGC.2 10-66

MATCH

UNITED NATIONS MODEL LIFE TABLE FOR THE LATIN AMERICAN
PATTERN OF THE FEMALE SEX WITH A VALUE OF Q(0)= 0.15000
FOR THE STUDY OF HYPOTHETICAL COUNTRY (DATA SET 1)

AGE	M(X,N)	Q(X,N)	I(X)	D(X,N)	L(X,N)	S(X,N)		T(X)	E(X)	A(X,N)
0	.16621	.15000	100000.	15000.	90250.	.79041	/A/	3937158.	39.372	0.350
1	.04355	.15624	85000.	13280.	304954.	.88664	/B/	3846908.	45.258	1.361
5	.00936	.04571	71720.	3278.	350404.	.96511		3541954.	49.386	2.500
10	.00477	.02355	68442.	1612.	338179.	.97258		3191550.	46.632	2.500
15	.00673	.03313	66830.	2214.	328905.	.96009		2853372.	42.696	2.631
20	.00956	.04673	64616.	3019.	315780.	.94959		2524466.	39.069	2.582
25	.01098	.05343	61597.	3291.	299863.	.94306		2208686.	35.857	2.532
30	.01246	.06044	58306.	3524.	282788.	.93660		1908823.	32.738	2.519
35	.01365	.06600	54782.	3615.	264859.	.93313		1626036.	29.682	2.497
40	.01406	.06792	51166.	3475.	247149.	.92859		1361177.	26.603	2.501
45	.01582	.07613	47691.	3631.	229500.	.91673		1114028.	23.359	2.534
50	.01935	.09238	44060.	4070.	210391.	.89357		884528.	20.075	2.565
55	.02626	.12347	39990.	4937.	187998.	.85564		674137.	16.858	2.580
60	.03688	.16925	35052.	5933.	160860.	.79956		486139.	13.869	2.572
65	.05377	.23749	29120.	6916.	128617.	.72162		325279.	11.170	2.544
70	.07815	.32668	22204.	7254.	92812.	.62460		196662.	8.857	2.490
75	.11186	.43374	14950.	6485.	57971.	.51396		103850.	6.946	2.412
80	.15688	.55213	8466.	4674.	29795.	.35058	/C/	45879.	5.419	2.318
85	.23573	.....	3792.	3792.	16084.	.....		16084.	4.242	4.242

L(0,5)/500000 = 0-4 GROUP OF BIRTH TO AGE GROUP FOR 5 COHORTS OF SURVIVORSHIP /A/ VALUE GIVEN IS FOR S(0,5)=L(5,5)/L(0,5)
/B/ VALUE GIVEN IS FOR S(80+,5)=T(85)/T(80)
/C/ VALUE GIVEN IS

COALE & DEMENY MODEL LIFE TABLE FOR THE NORTH
PATTERN OF THE FEMALE SEX WITH A VALUE OF E(5)= 55.00000
FOR THE STUDY OF HYPOTHETICAL COUNTRY (DATA SET 2)

AGE	M(X,N)	Q(X,N)	I(X)	D(X,N)	L(X,N)	S(X,N)	T(X)	E(X)	A(X,N)
0	.12211	.11313	100000.	11313.	92647.	.85041 /A/	4840565.	48.406	0.350
1	.02528	.09481	88687.	8408.	332560.	.92473 /B/	4747919.	53.535	1.361
5	.00834	.04083	80279.	3277.	393202.	.96828	4415358.	55.000	2.500
10	.00449	.02222	77002.	1711.	380731.	.97710	4022156.	52.235	2.500
15	.00485	.02396	75291.	1804.	372014.	.97410	3641425.	48.365	2.539
20	.00570	.02810	73486.	2065.	362378.	.96974	3269411.	44.490	2.553
25	.00661	.03250	71421.	2321.	351414.	.96504	2907034.	40.703	2.548
30	.00765	.03754	69100.	2594.	339127.	.95980	2555620.	36.984	2.543
35	.00877	.04291	66506.	2854.	325493.	.95455	2216493.	33.328	2.534
40	.00983	.04798	63652.	3054.	310698.	.94996	1891000.	29.708	2.524
45	.01083	.05274	60598.	3196.	295150.	.94126	1580302.	26.078	2.547
50	.01370	.06628	57402.	3805.	277812.	.92384	1285152.	22.389	2.582
55	.01844	.08828	53597.	4732.	256654.	.89387	1007340.	18.795	2.605
60	.02725	.12795	48866.	6253.	229415.	.84353	750686.	15.362	2.615
65	.04202	.19083	42613.	8132.	193518.	.76693	521271.	12.233	2.596
70	.06586	.28347	34481.	9774.	148416.	.66302	327752.	9.505	2.546
75	.10104	.40242	24707.	9943.	98402.	.45130 /C/	179337.	7.259	2.472
80	.18242	.....	14764.	14764.	80935.	.....	80935.	5.482	5.482

/A/ VALUE GIVEN IS FOR SURVIVORSHIP OF 5 COHORTS OF BIRTH TO AGE GROUP 0-4 = L(0,5)/500000
/B/ VALUE GIVEN IS FOR S(0,5)=L(5,5)/L(0,5)
/C/ VALUE GIVEN IS S(75+,5)=T(80)/T(75)

USER SUPPLIED MODEL LIFE TABLE FOR THE NEIGHBORING COUNTRY
PATTERN OF THE FEMALE SEX WITH A VALUE OF E(0)= 65.00000
FOR THE STUDY OF HYPOTHETICAL COUNTRY (DATA SET 3)

AGE	M(X,N)	Q(X,N)	I(X)	D(X,N)	L(X,N)	S(X,N)	T(X)	E(X)	A(X,N)
0	.06937	.06593	100000.	6593.	95041.	.92152 /A/	6500001.	65.000	0.248
1	.00837	.03278	93407.	3061.	365720.	.97654 /B/	6404960.	68.570	1.417
5	.00199	.00991	90346.	895.	449491.	.99217	6039240.	66.846	2.500
10	.00115	.00573	89451.	513.	445972.	.99388	5589750.	62.490	2.500
15	.00135	.00671	88938.	596.	443242.	.99260	5143778.	57.835	2.571
20	.00164	.00815	88342.	720.	439964.	.99101	4700536.	53.209	2.577
25	.00198	.00986	87622.	864.	436008.	.98930	4260572.	48.625	2.570
30	.00234	.01163	86757.	1009.	431342.	.98699	3824564.	44.083	2.577
35	.00294	.01458	85748.	1250.	425732.	.98347	3393222.	39.572	2.593
40	.00376	.01863	84498.	1575.	418696.	.97929	2967490.	35.119	2.590
45	.00469	.02317	82924.	1921.	410023.	.97255	2548794.	30.737	2.608
50	.00662	.03260	81002.	2641.	398769.	.96091	2138771.	26.404	2.636
55	.00963	.04710	78361.	3691.	383180.	.93973	1740002.	22.205	2.662
60	.01588	.07660	74671.	5720.	360087.	.90100	1356822.	18.171	2.680
65	.02684	.12629	68951.	8708.	324437.	.83654	996735.	14.456	2.667
70	.04622	.20824	60243.	12545.	271404.	.73960	672298.	11.160	2.623
75	.07708	.32436	47698.	15472.	200729.	.49930 /C/	400894.	8.405	2.559
80	.16100	.....	32227.	32227.	200165.	.....	200165.	6.211	6.211

/A/ VALUE GIVEN IS FOR SURVIVORSHIP OF 5 COHORTS OF BIRTH TO AGE GROUP 0-4 = L(0,5)/500000
/B/ VALUE GIVEN IS FOR S(0,5)=L(5,5)/L(0,5)
/C/ VALUE GIVEN IS S(75+,5)=T(80)/T(75)

THE WORLD BANK / INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

Copies to Zach North Patel Shizari I. Husain

DATE: May 16, 1985

TO: Ms. Nancy Birdsall, Chief, PHNDR

FROM: Gloria Davis GD (AEPA4) and Michael MW Walton (AEAIN)

SUBJECT: INDONESIA: Demographic Analysis

This is just to express our appreciation for the extensive demographic analysis and projection work on Indonesia carried out by Sulekha Patel and Mahshid Shizari. The results have already proved to be very useful for the recently completed CEM, and will be used further in the ongoing transmigration sector work.

cc: Messrs. Hussain (AEPA4), Khalilzadeh-Shirazi (RSI), Ms. Hamilton

MWalton:vcb

DATE: September 9, 1985

TO: K.C. Zachariah, PHN

FROM: Mahshid Shizari MS

SUBJECT: Visit to Population Council

I spent two days in New York working with Mr. Bongaarts on his program on the relationship between fertility and contraceptive prevalence. He explained how to run the program and how to get the different tables it produces.

The program consists of several subroutines which help read in new data, modify existing data, calculate prevalence rates and number of acceptors and produces table of input and output data.

To use the Target program, as it is called, one needs an IBM PC or any other compatible computer (e.g.,IBM/XT or IBM/AT). The computer should have at least 256K of internal memory and one floppy disk drive. The DOS disk which is a floppy disk containing the operating system is also needed to start the computer. A manual will be prepared by Mr. Bongaarts to explain in detail how to start the Target program and how to input the data. The input data, which have to be prepared in advance consists of first and last year of the projection, the age range of married women in the reproductive age group, total fertility rate in both the beginning and last year of the projection, age specific fertility rates in the first year, number of women of reproductive age in first and last year, proportion of women currently married in the first year, contraceptive prevalence by method in the first year, percent distribution of methods by source, discontinuation rates by method and consumption rates.

Once the data are in the computer, the program calculates prevalence rates, the number using contraceptives, number of acceptors and consumption rates by method and source. The data are then placed in a file which is named by the user and both the input and output data can all be printed. The data in this file can be further changed, to give a new set of output. These changes can be saved or destroyed.

Mr. Bongaarts and I worked on the Thailand data file, studying the input and output data in detail and reproducing some numbers by hand, so that I would get a better feel of the calculations involved in the program. As a trial, I will gather the necessary data for a specific country and run the program on the IBM PC. Then we can send the results to the PHN staff and inform them about the existence of this program.

MShizari/dle

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE: March 26, 1985

TO: Ms. Nancy Birdsall, Chief, PHNPR

FROM: Abdallah El Maaroufi, Chief, EMPTA

SUBJECT Population Projection for the United Arab Emirates

1. A four-man manpower mission is scheduled to visit the United Arab Emirates on the second week of April 1985. A set of population projections is essential to the mission's work. We would appreciate your assistance in providing us with the population projections we require based on the data we are using for base year 1980 (see attached).

2. The mission requires the following: projections for male and female nationals, by single and five-year age groups, for single years and five-year groups, from 1981 to 2100. If the Bank population projections for the UAE include high- and low-growth scenarios, we would appreciate projections being prepared under both scenarios.

Thank you.

usual projection

Single yr. proj. 1980 - 2000

Attachment
Cleared with and cc: Messrs. You, Birks

DOdeh/A.Bernardo:gdl

UNITED ARAB EMIRATES

Base Year: 1980

Age Groups	Males	Females
0 - 4	31359	30319
5 - 9	24727	24015
10 - 14	18502	16742
15 - 19	15105	13411
20 - 24	11112	10797
25 - 29	8716	9318
30 - 34	6671	6533
35 - 39	6702	6873
40 - 44	6061	5087
45 - 49	5518	4427
50 - 54	4917	3778
55 - 59	2733	2077
60 - 64	2711	2227
65 - 69	2362	1540
70 - 74	1821	1357
75 - 79	664	501
80 - 84	508 1556	558 1420
85 +	384	411
Totals	150573	139971

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K.C. Zachariah - Incoming Correspondence - Volume 2 - 1986 - 1987	30171699

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Additional Comments

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Withdrawn by	Date
Chandra Kumar	13-Feb-15

international institute for population sciences
(DEEMED UNIVERSITY)

DR. K. SRINIVASAN
DIRECTOR

GOVANDI STATION ROAD,
DEONAR, BOMBAY-400 088.
INDIA

जनसंख्या विज्ञान का अन्तर्राष्ट्रीय संस्थान
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No.RP-IIPS/ 1908 /86
Date: 4 July 1986

Dear Prof. Zachariah,

We are very happy that Ms. Schigo Asher and yourself could visit the Institute on 26 June 1986 and discuss with us different aspects of population in India.

This Institute has conducted several studies on Family Planning and Maternal and Child Health care for both government and non-government organizations. Now that there is a desire to involve non-government organization in the development of Family Planning services in a big way, we feel the Institute can take up an exploratory type of study to identify the type of organization(s) which can achieve good result in the field of family planning programme.

....

Please find enclosed a copy of a note prepared by Prof.(Mrs.) Asha A. Bhende and her colleagues at the Institute on the subject of a likely project which the Institute would like to take up with World Bank's collaboration. This note gives only the outline of the line of thinking which can be moulded into a project proposal by the authors if World Bank is interested in it. If necessary, kindly write to Dr. Bhende directly for further information.

I shall be happy if a fruitful study design emerges with your collaboration.

With regards,

Yours sincerely,

S. Mukerji 4/7

(S. Mukerji)
Ag. Director

Dr. K.C. Zachariah,
Senior Demographer,
Economic Department,
International Bank for Reconstruction &
Development,
1818 H. Street, N.W.,
Washington D.C. 20433,
(U.S.A.)

Evaluation of the Family Planning Programme of Non-Government Organizations

The rapid population growth of India is a matter of concern to policy makers and administrators as well as to all those interested in the development of the country. The family planning programme is seen as one of the ways in which the population growth rate can be curbed. A large-scale population control programme, launched by the Government of India, with its humble beginnings in the First Five Year Plan, has been able to achieve some degree of success, though it falls much below the expected or desirable level. The National Population Policy declared in 1976 includes several "Beyond Family Planning" measures in order to achieve the national population goals. Since 1977, the programme has been renamed as the Family Welfare Programme, firmly establishing the wide base of the policy, the strategies and the action programmes related to the population problem.

Since the inception of the Family Planning Programme, the active involvement of the people has been considered to be an important component of the programme. For this purpose, the Government has encouraged non-government organisations to actively participate in the programme. Financial assistance to the extent of cent per cent grant-in-aid has been provided to voluntary organizations for setting up family planning centres and for carrying out related activities. Industries have been encouraged to provide family planning services to the workers in the organized sector, not only by providing financial assistance but by offering rebates on income-tax. The ILO in co-operation with the UNFPA has provided funds to various organizations in the organized sector to set up special family planning projects. Among others, these include the projects of the Employers' Federation of India, the Hind Mazdoor Sabha, the Indian Tea Association, the Maharashtra Labour Welfare Board etc., some of which the Institute has had an opportunity to evaluate.

While several non-government organizations carry out family planning activities with government assistance a few do so by raising their own funds, for example, the Rotary Clubs, the Lions Clubs etc. Some large-scale organizations launch health and family planning programmes with financial assistance from international agencies. It has also been observed that while some voluntary organizations belonging to specific religious communities cater to the needs of the general public (for example, the Christian Medical Association of India, the Young Men's Christian Association, the Young Women's Association), there are some that restrict their activities mainly to their own religious groups (for example, the Young India Muslim Association, Sanjeevani, a Neo-Buddhist Organization etc.).

The strategy and the programme declared by the Ministry of Health and Family Welfare for the remaining three years of the Seventh Plan period, lays increasing emphasis on the involvement and participation of non-government organizations. Some critics of the present approach to the problem go even as far as to say that the entire programme should be handed over to non-government organizations, rather than the government being mainly responsible for its implementation.

The time has now come to evaluate the role of the non-government organizations in the family planning programme. Such an evaluation would not only indicate what exactly their contribution is but will also be able to assess their commitment to the cause, the problems such organizations face in carrying out the programme, and how their contribution can be improved. Such a study will also be able to test the basic premise and conclude whether or not the non-government organizations can realistically be expected to deliver the goods.

As such a study will cover different types of non-government organizations, the findings should also be able to throw some light on the types of such organizations best suited to undertake this important responsibility. Such a study should also be able to recommend how best the potentials of different types of non-government organizations can be tapped, for improving their contribution.

Apart from the categories of non-government organizations mentioned above, one more category can also be covered in the study for widening its scope. Private medical practioners can play an important role in the family planning programme, by carrying out information, education and communication activities as well as by actually providing family planning services. Some private medical practioners are even today playing an important role in the Family Planning Programme. If private medical practioners are also covered in the study, it will be possible to identify their actual and potential role. It will also be possible to make recommendations regarding how this role can be strengthened.

Mr. Zachariah

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

File

March 20, 1986

TO: Regional Country Programs, Division Chiefs

FROM: John C. O'Connor, Division Chief, EPDCA

SUBJECT: Clearance of social data for World Development Indicators (WDI) and Social Indicators Data Sheet (SIDS)

---

1. On January 22, we sent preliminary population data for your review and clearance. This was the first step toward updating social data for the 1986 World Development Indicators (WDI) and the Social Indicators Data Sheet (SIDS). We have now completed this first step. We want to thank you for carefully reviewing the preliminary figures and, in several cases, for suggesting revisions.

2. The present memo and enclosed material refer to the second (and final) step in the clearance process. While we are asking for your assistance twice this year, our new process is designed to ensure that social indicators of development published by the Bank are consistent with the most recent data collected by country economists.

3. Figures for various social indicators are listed on the enclosed computer printout. These data will appear in the 1986 World Development Report and in the annual SIDS report. For your review, we are reporting data for the following years: 1965, 1973, and each year between 1980 and 1984. The latest year for which a figure appears will be used as the "most recent estimate" for that particular indicator within the WDI.

4. A separate printout has been provided for each country within your division. We have enclosed a copy of the 1985 SIDS so that you can identify any significant changes made since last year. In addition, the indicators are defined on the final attachment.

5. We ask that you clear these numbers as soon as possible. Please make any corrections directly on the printout. Any suggested modifications should be accompanied by a citation to the source and year of your data.

6. The corrected print out should be sent by c.o.b. Tuesday, April 1. Please send it to Mr. Fuller (EPDCA, room S-7125). If you have any questions, please call Mr. Mojaddidi (EPDCA, ext. 33819). If we do not receive your

clearance by April 1, we will assume that you have no objection to our using these numbers in the WDI. We very much appreciate your assistance.

Enclosures

Cleared with and cc: Mr. Jean Baneth, Director, EPD
cc: Regional Chief Economists
Regional Senior Economists
Messrs. Chopra, Chander, Ward, Ahmad, EPD
Ms. Birdsall, Mr. Zachariah, Ms. My Vu, PHNPR

BFuller:jmca

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

TO: My Vu, PHNPR DATE: February 7, 1986

FROM: Bruce Fuller, EPDCA BF

EXT: 33818

THROUGH: John C. O'Connor, JOC Division Chief, EPDCA

SUBJECT: Report on Step-One Clearance of Population Data

1. February 5 was the deadline for country economists to clear the initial population and demographic data. I am enclosing the responses that we have received from the divisions. Attachment 1 lists these responses and additional figures that country economists sent to our office. Our understanding is that you will directly contact the country economist where a disagreement exists and advise us as to the resolution. If this process could be completed by Friday, February 21, it would ensure that we stay on schedule for production of the WDI.

2. Attachment 1 also notes where data inconsistencies appear for the crude birth rate series. These questions are indicated with the notation "zdata" in column 1.

3. Countries for which you have provided population data are indicated in Attachment 2 (by an "x" in the "Send Clearance" column). This table also indicates the countries for which we heard back from the country economist (in the column labeled "Response 1"). We have not received population data sheets from you for several small countries as indicated in Attachment 2. These nations are indicated by the absence of an "x" in the column marked "Send Clearance." In addition, no population data have been provided for the small countries listed on page 6 of Attachment 2. Do you anticipate providing data on these countries? If so, we would like to get an estimate of when these data will be available. If not, do you have any objection to our using the figures provided by the UN population division?

4. In addition, we need to incorporate labor force data into the Step-Two clearance procedure. This includes, as you know, figures on the percent of the labor force employed in agriculture, industry, and services. We must mail the revised figures back to the country economists for the Step-Two clearance by March 7.

cc: Mr. Ward, Ms. Gutierrez-Ferguson, EPDCA
Mr. Zachariah, PHNPR ✓

Attachments

BFuller:jmca

Log Step-One Clearance 2-7-86

REGION	ECONOMIST	EXT	DATE	CLR1	CLR2	COUNTRY 1	COUNTRY 2	ISSUE
Africa east	Walton Mr	73939	0127	Yes		Zimbabwe		Slight inconsistencies with prior PHN run.
Africa east	Fazel Mr	73544	0127	Yes		Madagascar		Slight change, plus footnotes added.
Africa east	Bose Mr	73946	0131	Yes		Somalia		1980-84 figures ok; added '85 data fm PHN sector work.
Africa east	Hall Mr	72289	0206	Yes		Lesotho		
Africa east	Hall Mr	72289	0206	No		Botswana		Several changes recommended per gov't document.
Africa west	Kranjec Mr	74578	0124	Yes		Gabon		No additional information available.
Africa west	Kranjec Mr	74578	0124	Yes		Congo		Significant pop. changes, needs discussion.
Africa west	Vaurs Mr	75011	0131	No		Mauritania		Based on 1977 census, recs. different '85 total pop.
Africa west	Kawai Mr	75010	0203	Yes		Chad		No changes; no recent census & relying on estimates.
Africa west	Hewer Mr	73614	0203	Yes		Centr Af Rep		
Africa west	Klanecq	75012	0203	Yes		Guinea		
Africa west	Gil		0205	Yes		Guinea-Bissau		
Africa west	Jones Ms	78115	0205	Yes		Ghana		
Africa west	Grawe Mr		0206	No		Zambia		Changes recommended from country economic mission.
Africa west	Allen Mr	78056	0206	Yes		Nigeria		
Asia east	Peters Mr	72367	0127	Ok		Malaysia	Small isles.	Few data for small islands, he doesn't have either.
Asia east	Moulin Mr	73909	0129	Yes		Philippines		
Asia east	Woo Ms	72154	0203	No		China		Recommends slight changes fm China stat yearbook.
Asia east	Yusef Mr	74225	0205	No		5 countries		Significant changes for five countries.
Asia south	Phan Mr	32270	0131	Yes		India		Ok with figures [AM].
Asia south	Lieberman Mr	32263	0203	Yes		India		
Emena	Gassner Mr	32850	0124	Ok		Greece		No longer lending, no need to clear numbers.
Emena	King Mr	32495	0127	No		Hungary		Small chg in total pop.
Emena	King/Hanayon	32659	0127	Yes		Hungary		Slight change for total pop.
Emena	Hadian Miss	32325	0129	No		Turkey		Recommends chg: tot pop, 81-84, and demo. averages.
Emena	Wall Mr	32458	0129	No		Egypt		Recommends changes in total pop., CBR, and CDR.
Emena	Mendoza Mr	32414	0131	Yes		Morocco		
Emena	Santos		0205	Yes		Afghanistan		
Emena	Santos		0205	Yes		Iran		
Emena	Rangachar Mr	32496	0206	No				Several changes recommended.
Emena	Nowicki Mrs		0206	Yes		Portugal		
Latin Am	Burnett Mr	74604	0129	No		Haiti		Recommends chgs; new data come from PHN's own work!
Latin Am	Giral Mr	74146	0131	No		Uruguay		Adjustments recommended per 1985 census (att.).
Latin Am	Voyadzis Mr	72181	0203	Yes		Venezuela		
Latin Am	Voyadzis Mr	72181	0203	Yes		Trinidad	Tobago	
Latin Am	Voyadzis Mr	72181	0203	No		Grenada		Slight chgs recommended for tot pop.

REGION	ECONOMIST	EXT	DATE	CLR1	CLR2	COUNTRY 1	COUNTRY 2	ISSUE
zdata	Cuca [PHN]	61563	0129	No		Haiti	Jordan Ecuador	Several consistencies or more recent data.
zdata	bf		0127			Japan		Data inconsistencies for 1950 averages and for 1966.
zdata	bf		0205			Costa Rica		Temporary jump in CBR series for 1965-66.
zdata	bf		0127			Norway		Jump in CBR between 1983-84.
zdata	bf		0203			Kampuchea		15% jump in CBR, averages between 1977-1982.
zdata	bf		0205			Bolivia		I have rounded to just one digit to rite of decimal.
zdata	bf		0205			Bahamas		What is 1976 CBR figure, can't read it.
zdata	bf		0129			Jordan		Country label ("Jordon") simply misspelled.
zdata	bf		0127			Romania		CBR inconsistency for 1960's.
zdata	bf		0203			China		Major drop in 1955('57) average for CBR.
zdata	bf		0129			Kuwait		For 1982, 34.7 figure an average or specific to year?
zdata	bf		0205			Antigua/Barb		Is 1982 CBR figure an average or for that year?
zdata	bf		0203			Mauritius		1982 average and 1984 actual figure??

Clearance Country List
Update 2-7-86

ATTACHMENT 2

Country	Borrower	WDI	SID	Send Clr	Response 1
AFRICA EAST					
Kenya	x			x	
Uganda	x			x	
Botswana	x			x	x
Lesotho	x			x	x
Swaziland	x			x	
Zambia	x			x	x
Zimbabwe	x			x	x
Malawi	x			x	
Mozambique	x			x	
Tanzania	x			x	
Comoros	x			x	
Djibouti	x				
Madagascar	x			x	x
Mauritius	x			x	
Seychelles	x				
Ethiopia	x			x	
Somalia	x			x	x
Sudan	x			x	
Burundi	x			x	
Rwanda	x			x	
Zaire	x			x	
Reunion				x	
Namibia				x	
South Africa				x	
AFRICA WEST					
Burkina / Upper Volta	x			x	
Mali	x			x	
Niger	x			x	
Ghana	x			x	x
Liberia	x			x	
Sierra Leone	x			x	
Nigeria	x			x	x
Cape Verde	x			x	
Guinea-Bissau	x			x	x
Ivory Coast	x			x	
Sao Tome / Principe	x				
Chad	x			x	x
Gambia	x			x	
Mauritania	x			x	x
Senegal	x			x	
Cameroon	x			x	
Central Afr Rep	x			x	x
Congo	x			x	x
Equatorial Guinea	x			x	
Gabon	x			x	x
Benin	x			x	
Guinea	x			x	x
Togo	x			x	
Angola				x	

Country	Borrower	WDI	SID	Send Clr	Response 1
ASIA EAST					
Kampuchea	x			x	
Lao	x			x	
Thailand	x			x	
Viet Nam	x			x	
Philippines	x			x	x
Indonesia	x			x	
Fiji	x			x	x
Malaysia	x			x	x
Papua New Guinea	x			x	x
Solomon Islands	x			x	x
Tonga	x				
Vanuatu	x			x	x
Western Samoa	x			x	x
Korea, Rep of	x			x	
Korea, Dem People Rep					
China	x			x	x
Brunei				x	
Mongolia				x	
Singapore				x	
Hong Kong				x	
ASIA SOUTH					
Bhutan	x			x	
Burma	x			x	
Maldives	x			x	
Nepal	x			x	
Sri Lanka	x			x	
Bangladesh	x			x	
India	x			x	x
Pakistan	x			x	x

Country	Borrower	WDI	SID	Send Clr	Response 1
EMENA					
Egypt	x			x	x
Hungary	x			x	x
Portugal	x			x	x
Yemen, Arab Rep	x			x	
Yemen, PDR	x			x	x
Afghanistan	x			x	x
Iran	x			x	x
Romania	x			x	
Yugoslavia	x			x	
Greece	x			x	x
Syria	x			x	
Turkey	x			x	x
Algeria	x			x	
Lebanon	x			x	
Malta	x			x	
Morocco	x			x	x
Bahrain	x			x	
Cyprus	x			x	
Iraq	x			x	
Jordan	x			x	x
Kuwait	x			x	
Libya	x			x	
Oman	x			x	
Qatar	x			x	
Saudi Arabia	x			x	
Tunisia	x			x	
United Arab Emirates	x			x	
Poland				x	
LATIN AMERICA					
Cuba				x	
Mexico	x			x	
Costa Rica	x			x	
El Salvador	x			x	
Guatemala	x			x	
Honduras	x			x	
Nicaragua	x			x	
Dominican Rep	x			x	
Haiti	x			x	x
Panama	x			x	
Peru	x			x	
Ecuador	x			x	x

Country	Borrower	WDI	SID	Send Clr	Response 1
LAC (con't)					
Chile	x			x	
Brazil	x			x	
Colombia	x			x	
Antigua	x			x	
Bahamas	x			x	
Belize	x			x	
Dominica	x			x	
Grenada	x			x	x
Guyana	x			x	
Jamaica	x			x	
Montserrat	x				
Netherlands Ant	x				
St Kitts-Nevis	x			x	
St Lucia	x			x	
St Vincent	x			x	
Suriname	x			x	
Trinidad & Tobago	x			x	x
Venezuela	x			x	x
Argentina	x			x	
Bolivia	x			x	
Paraguay	x			x	
Uruguay	x			x	x

Country	Borrower	WDI	SID	Send Clr	Response 1
EUROPE / HICs					
Germany, Dem Rep					
Germany, Fed Rep					
Albania					
Austria					
Belgium					
Australia					
Bulgaria					
Czechoslovakia					
Denmark					
Finland					
France					
Iceland					
Ireland					
Italy					
Luxembourg					
Netherlands					
Malta					
UK					
Switzerland					
Sweden					
Spain					
Romania					
USSR					
Japan					
New Zealand					
Canada					
USA					
Norway					

Country	Borrower	WDI	SID	Send Clr	Response 1
Samoa, American					
Samoa (Western Samoa)?		lif exp			
Bermuda					
Guiana, French		maps			
Polynesia, French					
Gibraltar					
Kiribati					
Guadeloupe					
Guam					
Macao					
Martinique					
New Caledonia					
Puerto Rico (U.S.)?					
Pacific Island Trust Terr					
Virgin Islands (U.S.) ?					
Channel Islands					
Faeroe Islands					
Greenland		maps			
Isle of Man					

THE WORLD BANK INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE: February 24, 1986

TO: John O'Connor, EPDCA

FROM: Mahshid Shizari, PHNPR M. Shizari

SUBJECT: Demographic Data for 1986 World Development Indicators

By March 1, 1986, PHN will provide EPD with (a) the changes that resulted from the first clearance; and (b) percent of the population in urban areas.

After March 1, the following tasks remain to be done. Following each task that involves EPD's help, in parenthesis, is an estimate for the time EPD will spend on that particular task. If, later in March, further assistance is needed, EPD will be informed.

(1) PHN will prepare two lists, one of countries which need the new age specific fertility rates and the other of countries which need the new age sex structure.

(2) The year in which the net reproduction rate will reach unity has to be calculated and compared to last year's data.

(3) Using the 1980-85 life expectancy data and regressions relating life expectancy and the increase in life expectancy, mortality data will have to be calculated for periods following 1980-85. (20 hours)

(4) For those countries which will need any change in the above mentioned data, the new numbers and rates will have to replace the old data in the country's data file. (20 hours)

(5) The projections will then be run. Rates may subsequently have to be adjusted.

(6) Sulekha looked into the labor force data from ILO. As she informed Bruce, data are only available until 1980. She suggested that for data after 1980, EPD should inquire with ILO as to whether they have unpublished projected data or whether they would project the data for EPD. (20 hours)

(7) Infant Mortality Rates have been cleared once. The final values, however, will be supplied at the time of the preparation of the tables.

(8) Child mortality calculations will be done by EPD when infant mortality rates are set. (20 hours)

(9) Migration is in some cases a residual value and in other cases, obtained from appropriate sources. Migration figures will be finalized after the projections.

(10) Two sets of projections will have to be run: a finalized standard set and another for calculating population momentum. EPD can help with the latter set. (20 hours)

(11) The last step is to prepare the WDI tables. As in the past, EPD will prepare these tables, and PHN will review them.

(a) Table 1 - 1984 population and life expectancy at birth

(b) Table 19 - Average population growth rate, year in which net reproduction rate equals one, population momentum, crude birth rate, crude death rate, and total fertilty rate

(c) Table 20 - Family planning data and percent change in total fertility rate, crude birth rate, and crude death rate

(d) Table 21 - Labor force, growth

(e) Table 22 - Percent urban population, growth

(f) Table 23 - Life expectancy at birth, infant mortality rate, child death rate

cc: K.C. Zachariah, PHNPR
Karen Hall, PHNPR
My Thi Vu, PHNPR
Sulekha Patel, PHNPR
Michael Ward, EPDCA
Bruce Fuller, EPDCA
Miriam Gutierrez-Ferguson, EPDCA

Mr. Zachariah

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

January 22, 1986

TO: Regional Country Programs Division Chiefs

FROM: John C. O'Connor, Division Chief, EPDCA

SUBJECT: Clearance of population data for the World Development Indicators

1. We are beginning to update population and other social data for the 1986 World Development Indicators (WDI) and the Social Indicators Data Sheet (SIDS). This year we are instituting a two-step clearance process. The first step involves clearance of recent population variables shown on the attached country table. Clearance of these basic demographic data will permit PHN to estimate projected population levels and to make certain other "recent estimates." It also allows us to calculate other social indicators of development that are derived in part from these population variables. The second step will occur in early March when you will receive updated estimates of the full range of social indicators that appear in the WDI and the SIDS. We believe that this two-step clearance procedure will lead to more reliable estimates and will minimize last minute disagreements prior to publication of the WDI.

2. The attached population figures come from the data files of the Population, Health, and Nutrition Department (PHN). If you have questions or suggested revisions, please directly contact one of the following PHN staff members:

Africa and Europe	Ms. My Vu (x60528)
Latin America	Ms. Mahshid Shizari (x61587)
Asia (inc. Oceania)	Ms. Sulekha Patel (x61591)

EPD will accept revisions with the concurrence of PHN staff.

3. At this point, we are requesting that you review and clear only a subset of the population data that are attached. We are not asking you to examine all of the numbers contained in the attached two pages. At this point, we are requesting that you review and clear only the following items:

(a) Country Table: Total population data only for 1980 and 1984. If the 1984 figure does not appear, then please check the 1983 figure.

(b) Country Table: Demographic data appearing in the next four columns only for the 1980-1984 period. These numbers are for crude birth rate (CBR), crude death rate (CDR), infant mortality rate (IMR), total fertility rate (TFR) and life expectancy for males (e:m) and for females (e:f). If only one number appears in a column for the 1980-1984 period, this figure indicates an average annual rate for the period.

(c) Table on Rate of Contraceptive Use Among Married Women: If this figure is missing for your country, please advise us as to whether a figure does exist.

4. We ask that you clear these numbers as soon as possible. Please make any corrections on the worksheet in red so that we can distinguish your changes. Return the corrected tables by c.o.b., Wednesday, February 5. The tables should be returned to Bruce Fuller (EPDCA, room S-7125, ex. 33818). Please feel free to call Mr. Fuller if you have any questions regarding this clearance process or general questions regarding the attached packet. If we do not receive your clearance by this date, we will assume that you have no objection to our using these numbers in the WDI. We very much appreciate your assistance.

Attachments

Cleared with and cc: Mr. Jean Baneth, Director, EPDDR

cc: Messrs. Chopra, Chander, Ward, Ahmad, Fuller, EPD
Ms. Birdsall, Mr. Zachariah, Ms. My Vu, PHNPR
Regional Chief Economists
Regional Country Programs Senior Economists

done

File
KZ

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION
OFFICE MEMORANDUM

DATE: 13 April 1987

TO: Mr. K.C. Zachariah, Head, Demographic Unit, PHNPR

FROM: David J. DR Radel, PHND2

EXTENSION: 61601

SUBJECT: NIGERIA: Demographic Data for Country Strategy Paper

1. This is to confirm our discussion today regarding production of a simple graph and table showing population projections for Nigeria over the next 30-40 years. You will use the same assumptions regarding changes in fertility as appear in para. 4 of our December 1984 issues paper, unless the responsible country economist, Joanne Salop suggests a different set. In addition, if Programs would like to have per capita income projections under the three fertility scenarios, you can run off a second graph and table, provided Programs gives you the figures for projected GDP.

2. In view of urgent commitments for WDR, I understand your staff will not be able to produce the desired graph(s) and table(s) until early in the week of April 20. Please send one set directly to Ms. Salop (J-4-145) and one to me.

3. Many thanks for your assistance.

cc: Ms. Salop, WA1NI; Mr. Over, Mr. Brown (o/r), PHND2

DRadel:pl (b:demodata.csp)

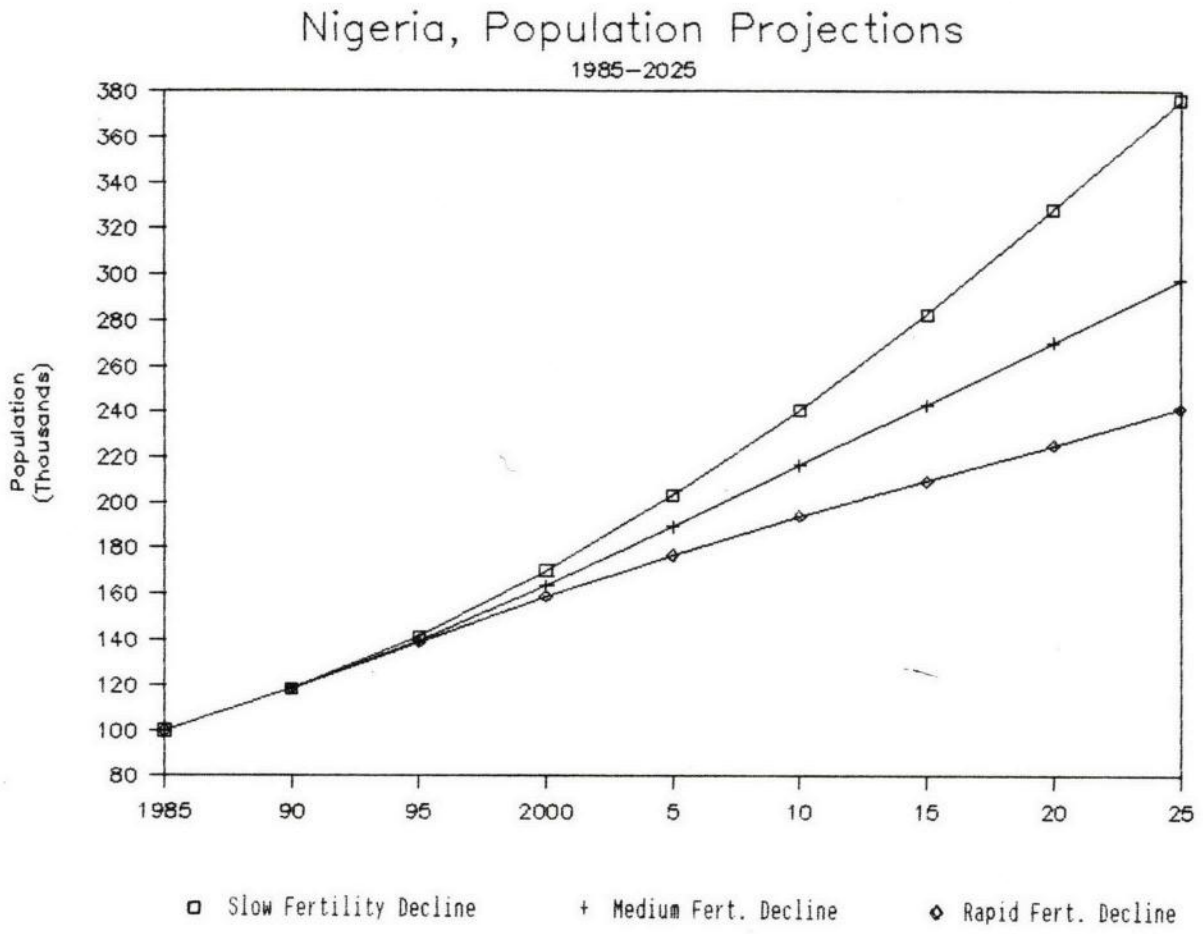

Nigeria, Population Projections
1985–2025
Population (Thousands)
380
360
340
320
300
280
260
240
220
200
180
160
140
120
100
80
1985
90
95
2000
5
10
15
20
25
Slow Fertility Decline
Medium Fert. Decline
Rapid Fert. Decline

Table 1. Nigeria, Population Projections 1985-2025
(in thousands)

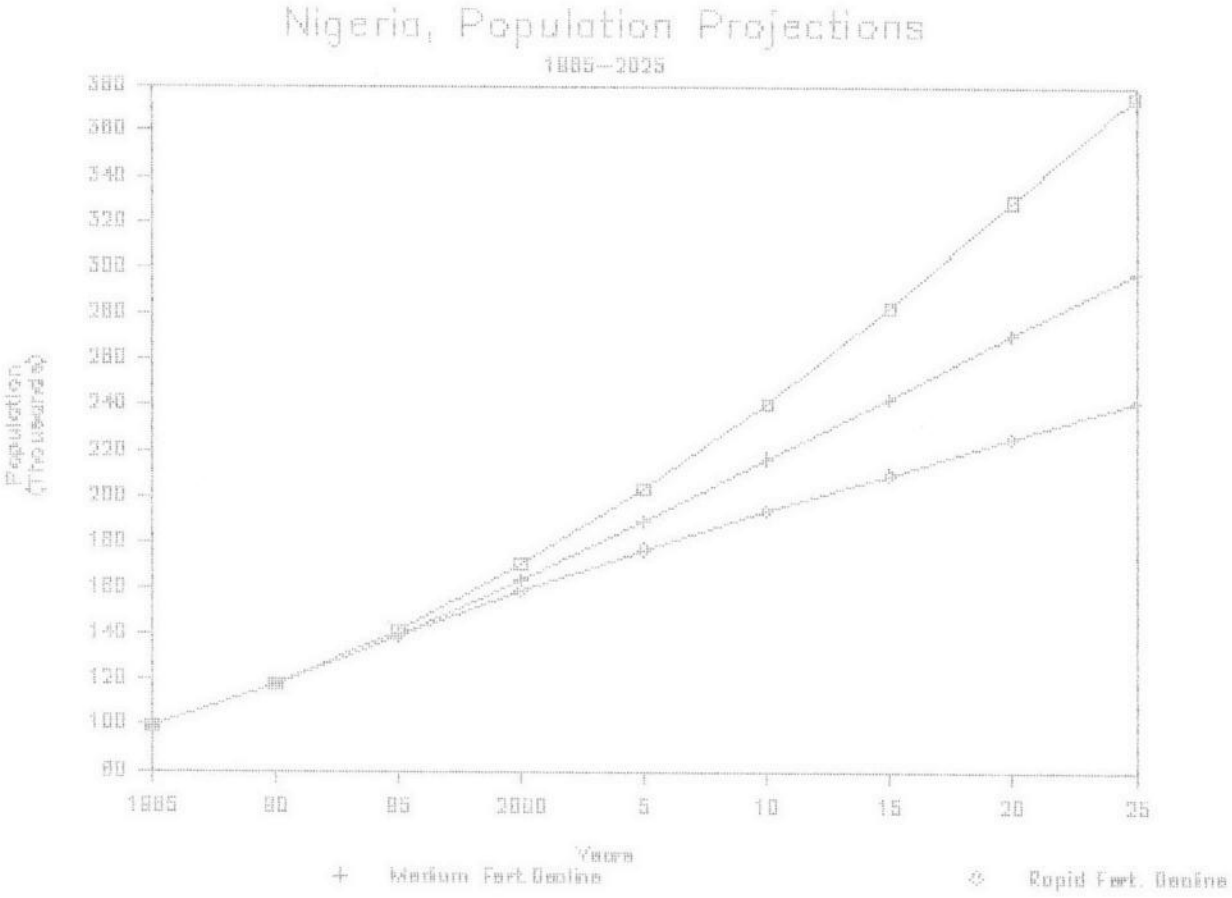
Year	Slow Fertility Decline Rapid Population Growth (1)		Medium Fertility Decline Medium Population Growth (2)		Rapid Fertility Decline Slow Population Growth (3)	
	Pop.	Growth R.	Pop.	Growth R.	Pop.	Growth R.
1985	99669		99669		99669	
1990	118255	3.42	118255	3.42	118255	3.42
1995	141406	3.58	139575	3.32	138752	3.20
2000	170227	3.71	163484	3.16	159215	2.75
2005	203206	3.54	189416	2.94	176926	2.11
2010	240587	3.38	216530	2.68	193881	1.83
2015	282542	3.22	242946	2.30	209498	1.55
2020	328428	3.01	270371	2.14	225179	1.44
2025	376073	2.71	297944	1.94	241487	1.40

Notes:

(1) Slow Fertility Decline;
TFR remains constant during 1985-2000 and then declines to replacement level (NRR=1) by 2050.

(2) Medium Fertility Decline;
TFR declines after 1990 to replacement level by 2035 (WDR, 1987, Assumptions).

(3) Rapid Fertility Decline;
TFR declines after 1990 to replacement level by 2015.


Nigeria, Population Projections
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120
100
80
1985
90
95
2000
5
10
15
20
25
Years
Medium Fert.Decline
Rapid Fert. Decline

Table 1. Nigeria, Population Projections 1985-2025
(in thousands)

Year	Slow Fertility Decline Rapid Population Growth (1)		Medium Fertility Decline Medium Population Growth (2)		Rapid Fertility Decline, Slow Population Growth (3)	
	Pop.	Growth R.	Pop.	Growth R.	Pop.	Growth R.
1985	99669		99669		99669	
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2025	376073	2.71	297944	1.94	241487	1.40

Notes:

(1) Slow Fertility Decline;
TFR remains constant during 1985-2000 and then declines to the replacement level (NRR=1) by 2050.

(2) Medium Fertility Decline;
TFR declines after 1990 to replacement level by 2035 (WDR, 1987, Assumptions).

(3) Rapid Fertility Decline;
TFR declines after 1990 to replacement level by 2015.

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION
OFFICE MEMORANDUM

DATE : May 19, 1986

TO : Distribution List

FROM : K.C. Zachariah

EXTENSION : 61579

Paul Demeny is expected to be in the Division on Wednesday, May 21st to give his views on improving our work on population projections. He is expected to reach here at about 9.30 am.

Distribution: William McGreevey
Nancy Birdsall
Althea Hill
Rodolfo Bulatao
Sulekha Patel
Mahshid Shizhari
My Vu

4/30

Mr. Zuckerich -
Let us know if
we should make changes.
May influence growth rates
appearing in WDI.
Bruce Fuller

April 29

TO: Miriam, Sultan, Michael

FM: Bruce

RE: Jumps in historical population data

1. Erratic jumps occur in our updated historical population series for the countries and years listed below. These blips include large gains or significant declines in population over one-year periods.

China	1960-61	Portugal	1970-73
~~Thailand~~	~~1966-68~~	Malta	1960-73, 1981-82
Mexico	1976-78		

2. The Thailand error looks like we entered just one digit wrong prior to uploading from the lotus spreadsheet. But the other cases should be referred to PHN. I also will recalculate pop. growth rates to see if we need to amend the WDI tables.

3. These jumps were discovered by Khai Nguyen in EPDGL who ran a program that simply looked at the one-year percent change in population for all countries, 1960-2000. We may want to do such a run in the future to pinpoint these problems earlier.

cc: Khai Nguyen

P.S. Want all changes in writing, to O'Connor, c c to Bruce Fuller.

China: Pop decline OK - famine, per Ken Hill's series.

Malta: data from govt sources - probably due to migration.

Portugal: due to Migration -

Mexico:

Copies to:
M Shigaru
My Vu

D R A F T

May 2. 1986

TO: John O'Connor

FM: Sultan, Miriam, Bruce

SUBJ: Population data: Current versus projected figures

Breaks in Current and Projected
Total Population Figures

1. In Fall 1985, EPDCA staff raised the issue of possible breaks between 1984 actual and 1985 projected total population figures with Mr. Zachariah (PHNPR). At that time, Mr. Zachariah argued that such breaks may continue to occur for some countries, given the different nature of the figures. He did, however, indicate that they would check 1984 and 1985 numbers to minimize discontinuities in their revised historical data and projections.

2. In general, PHNPR population figures provided for WDI-9 do not show breaks in annual growth for the 1984-1985 period. The attached printouts document that no serious general exists.

3. However, discontinuities do appear for several countries -- looking at one-year growth rates for 1983-84 and 1984-85. Problems with the following countries should be resolved by PHNPR in the next few days.

Country	Annual % Change in Total Population 1980-84 (actual)	1983-84 (actual)	1984-85 (projected)
Pakistan	~~4.3%~~ 2.75	2.5%	2.5% 2.75
Ethiopia	2.8	2.8	**0.2**
Albania	2.1	2.1	**1.4**
Cuba	0.7	**2.4**	0.8
Dominican Rep	2.4	2.6	**0.8**
Qatar	5.3	**7.4**	5.3
Jamaica	0.5	**-3.2**	1.4

4. In the case of Jamaica, PHNPR recently reached agreement with the country economist to shift 1984 total population for Jamaica by 4.5 percent. But without adjusting the historical series, a 3 percent drop in population between 1983-84 is now shown (as indicated by EPDGL's printout). Second, a 1 percent drop in population for China, over 1995-96, is shown in EPDCA's data file. This will be checked against PHNPR's projection which shows average growth at 1 percent over the 1984-2000 period.

Breaks in Pre-1980 Historical Series

5. The EPDGL printout also brought to light the following jumps in our historical series: China, 1955-1961; Mexico, 1976-78; Portugal, 1970-73; Malta, 1960-73, 1981-82; and Thailand, 1966-68. The problem with Thailand is simply a typing error that we made in preparing the lotus spreadsheet. The other cases have been referred to PHNPR. Any adjustments in the historical series will come from PHNPR on May 6 when they provide recommended corrections in the draft WDI tables.

cc: Mr. Zachariah, Mr. Ward (o/r)

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

File

April 30, 1986

TO: Nancy Birdsall, PHNPR

FROM: John C. O'Connor, Chief, EPDCA

SUBJECT: Population Data in the Pacific

to Zach

In connection with the work recently undertaken by EPDCA on small islands (see "The Measurement of GNP in Small Islands Economies, Division Working Paper No. 1986-1, April 3, 1986), we wrote to the Health and Population Division of the U.K. Overseas Development Administration for some information on population estimation in the South Pacific. Although you are no doubt aware of the present situation in these various small island countries, I thought you might be interested in reading Dr. Macrae's attached reply to our inquiry.

Attachment

cc: Messrs. Ward, Ahmad, Fuller, Ms. Gutierrez-Ferguson, EPDCA

MWard:llt

JOC

MW

OVERSEAS DEVELOPMENT ADMINISTRATION
Eland House Stag Place London SW1E 5DH

Telephone 01-213:
or Switchboard 01-213:3000

Mr M Ward
Senior Economist
Comparative Analysis & Data Division
Economic Analysis & Projections Department
The World Bank
1818 H Street, NW
Washington, DC 20433
USA

Your reference

Our reference HEA 305/208/01

Date 11 April 1986

Dear Michael

Thank you for your letter of March 24th asking for information on the availability and reliability of population data and related vital statistics in the Pacific region. Following my several consultancies at the South Pacific Commission and my fellowship at the Australian National University I have, as far as possible, kept in touch with developments in the demographic situation in the region and will try to provide the information you need. Of the 22 countries covered by the South Pacific Commission (SPC), you indicate that the World Bank has specific interest in the few you name, and I will therefore confine my comments to these. However, if required, I can subsequently give you information on some others, particularly the Solomon Islands, Fiji and Papua New Guinea.

2. Kiribati and Tuvalu

I personally undertook the demographic analysis of the 1978 Kiribati and 1979 Tuvalu censuses and consider these data to be reasonably reliable. The reports are published by the respective government Statistics Offices and they are certainly held at SPC. I cannot yet comment on the recent census of Kiribati as it is only at the processing stage, but ODA funded the Census Commissioner, Mr Michael Crone, who is very experienced, and I therefore expect the census to have been well done.

3. Tonga

The last full census was, I think, in 1976. Its analysis was protracted as the data were questionable and was completed with difficulty only several years later. I understand that there has recently been a sample survey conducted in Tonga but again the data are said to be suspect and so the survey will no doubt have raised more questions than it answered.

4. Vanuatu

ODA funded a consultant (Dr Heather Booth) to undertake the demographic analysis of the 1979 census. This was a difficult exercise as questions on fertility and mortality had not been asked, as the French had thought (incorrectly) that their vital

registration data were sufficient to provide fertility and mortality indices. The report entitled "Fertility and Mortality in Vanuatu: The Demographic Analysis of the 1979 Census" was published by the South Pacific Commission in September 1985 as the first in a new series of papers entitled "Pacific Population Papers". I am asking Heather Booth to send you a copy of this. There has been some dispute over both the data and also the validity of the results, and discussions of the analysis in both SPC and Port Vila would be advantageous if you are hoping to learn which are the finally agreed and accepted indices.

5. Samoa

I regret I know little about either American or Western Samoa - I presume your interest is in the latter. There was a complex and virtually incomprehensible analysis of the 1976 census undertaken by Michael Hartmann, but I am not up-to-date with the current situation there.

6. The SPC certainly holds all the reports and documents you may require concerning demographic indices of the Pacific region. Several of these documents are published by SPC and unfortunately do not receive wide circulation and probably have not reached the World Bank Library. In addition SPC produces a Population Bulletin of the region, which is a summary of the key demographic indices and which is a useful ready-reckoner. If you are ever in the area, I strongly recommend that you visit SPC if you require detailed and reliable population data.

7. Dr Ko Groenewegen is no longer the demographer in SPC but left last year and is now the Census Commissioner for the 1986 census in the Solomon Islands. His successor at SPC is Dr Peter Pirie, previously of the East West Population Institute in Honolulu. Dr Pirie has a team which includes Dr Heather Booth (cf Vanuatu Report) and Dr Geoffrey Hayes, who is a migration specialist. Also at SPC is Dr Richard Taylor, an epidemiologist, who has conducted some small-scale surveys which have focussed on child mortality. Other institutions which have an interest in the Pacific region from the demographic point of view are:-

The East West Population Institute, Honolulu
(Dr Murray Chapman, though he is about to move to the Solomon Islands)

The Development Centre, Australian National University, Canberra (Dr David Lucas)

Population Division, ESCAP, Bangkok (Dr Laurie Lewis)

Department of Demography, University of the South Pacific, Suva (Dr Martin Bakker)

In addition, Dr Richard Bedford, (University of Canterbury, New Zealand) and Dr John Connell (Macquarrie University, Sidney) have done considerable work on migration in the Pacific region, and Professor Ian Pool (University of Waikato, New Zealand) has undertaken several studies and Needs Assessment Missions in several Pacific countries.

8. Most of the above Institutions have, I think, little active role in population surveys other than from a research point of view. The South Pacific Commission does not carry out its own population surveys except on a very small scale and mostly these have been in relation to health and epidemiology. Of course, with the small populations that exist in the Pacific, most surveys are actually of total populations, ie censuses, and have been largely funded by UNFPA.

9. I hope I have been able to answer your queries satisfactorily. Please do not hesitate to contact me again if I can be of any further assistance.

Yours sincerely

Sheila Macrae

(Dr) Sheila M Macrae
Population Adviser
Health & Population Division

File

Mr. K.C.Zachariah
Room N. 446
The World Bank, H.Street, N.W.
Washington, D.C. 20433

3772 N.Tillotson Ave. Apt 180
Muncie, IN 47304
Tel. 317-747-5678

April 22, 1986

Dear Mr. Zachariah :

Dr. Murray Gendell, Chairman, Department of Demography at GeorgeTown University, has referred you to me for the possibility of part-time employment in your department in some research projects. I have been offered tution scholarship to pursue Masters Program in Demography at GeorgeTown for this Fall. I need some part-time employment to cover my living expenses during the study period.

I do have extensive working experience with the microcomputers and I have a very good knowledge with Lotus 1-2-3, Dbase III, and some experience with Symphony. I have also worked in various rural development research projects in Nepal. I am certain that I could use my experience and expertise effectively in your projects if given the opportunity.

I have also applied for Summer jobs at the World Bank. I have been informed that they have interest with my background. I am waiting for their final decision.

I am enclosing my Curriculum Vitae for your reference. Please let me know if you need any more information. I look forward to hearing from you soon.

Sincerely,

SBhattarai

Saroj Bhattarai

Record Removal Notice

The World Bank Group Archives & Records Management

File Title	Barcode No.
K.C. Zachariah - Incoming Correspondence - Volume 2 - 1986 - 1987	30171699

Document Date	Document Type	
22 April, 1986	CV / Resumé	

Correspondents / Participants

Subject / Title
Curriculum Vitae - Saroj K. Bhattarai

Exception(s)
Personal Information

Additional Comments

The item(s) identified above has/have been removed in accordance with The World Bank Policy on Access to Information. This Policy can be found on the World Bank Access to Information website.

Withdrawn by	Date
Chandra Kumar	13-Feb-15

4/19

POLICY AND RESEARCH DIVISION

N Birdsall

~~J Akin~~
I Barnum
R Bulatao
D Chernichovsky
K Chomitz
D Gwatkin
A Hill
W McGreevey
V Paqueo
~~K Zachariah~~

L Chester
S Patel
D Prevoo
M Shizari
L Truong
M Vu

H Sailo
C Shaw
J Benson
L Jose

THE WORLD BANK INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE April 16, 1986

TO Mr. Ghassan El-Rifai, EM2

FROM James L. Theodores, Field Coordinator, VPA

EXTENSION 74911

SUBJECT Libya - Ban on all Travel

North/OH
cc: FS
AB
ARH
BHL
NB/W McG
SHD
IZH
EHS

1. We have received the following telexed advisory from the UNDP Overseas Security Unit in New York:

> "Designated Official Libya informs that with immediate effect phase two declared and no travel to Libya to be undertaken until further notice. All UN international staff and dependents are safe."

2. This ban supercedes the prior clearance requirement previously in effect.

3. Pending further clarification from the Designated Official, the ban also applies to benefit travel until further notice. Intending benefit travelers should contact the Field Coordinator's Office for further information prior to initiating travel plans.

cc: Messrs. Wapenhans, EMNVP
Patel, EMNVP
Stoutjesdijk, EM2
Picciotto, EMP
Chadwick, VPA
Libert, ADMTR
Reed, CEX
Richardson, OPS
Malik, SEC
Raczynski, PMD
Clarke, COM
Townsend, ADM
Mrs. Bazin, Paris Office
Ms. Duncan, VPA

P 1866

Rand
SANTA MONICA, CA

16 April 1986

Dr. K. C. Zachariah
Ms. My T. Vu
World Bank
1818 H. Street, N.W.
Washington, DC 20433

Dear Dr. Zachariah and Ms. Vu:

Thank you for sending the European population data, which will be very useful. I greatly appreciate the time and effort you expended in responding to my request.

Please do not hesitate to contact me if I can be of service to you.

Sincerely,

Barry Wolf

Barry Wolf

Pls. circulate generally 4/9

POLICY AND RESEARCH DIVISION

W. McGreevey

~~N. Birdsall~~
~~J. Akin~~
~~R. Bulatao~~
~~D. Chernichovsky~~
~~D. Gwatkin~~
K. Hall
~~A. Hill~~
~~V. Paqueo~~
~~K. Zachariah~~

~~L. Chester~~
~~S. Patel~~
~~D. Prevoo~~
~~M. Shizari~~

L. Truong
M. Vu

Population Reference Bureau, Inc.
777 14th St., N.W., Suite 800, Washington, D.C. 20005
(202) 639-8040

April 7, 1986

Dear Population Colleague:

The seventh in PRB's 1985-86 noonhour seminars on "Population Today: Myths and Realities" features a very special speaker. We invite you to join us in Room A of the Washington Conference Center on the first floor of our headquarters at 777 14th Street N.W.

Our speaker is: PAUL CLANCY
Staff Writer and noted "people/population watcher" of USA TODAY

His topic is: "How population people can help the media put across the population story"

PLACE: Washington Conference Center, Room A
First floor (PRB is on the 8th floor)
777 14th Street N.W.
Washington, D.C. 20005

"Realtors Building," east side of 14th St. NW, between New York Ave. and H St., close to McPherson Square and Metro Center stations.

DATE/TIME: Wednesday, April 16, 1986
12 noon to 1:30 pm

Please bring your bag lunch. Coffee, tea, and soft drinks are provided.

ABOUT PAUL CLANCY AND HIS TOPIC

Veteran journalist and political biographer Paul Clancy's main interest is people and "demographic statistics are the best way to get at people," he says, as he has shown vividly with his frequent stories since joining USA TODAY in July 1983 as Staff Writer and demographics specialist. He will offer us tips on how the working population community can help the media demonstrate that, indeed, "demographics touch almost every facet of our lives."

Mr. Clancy came to Washington in 1970 to join the Washington bureau of the Charlotte (N.C.) Observer and later worked on the Washington Star. He is author of bestselling biographies of Sam Erwin, Just a Country Lawyer (1974), and Tip O'Neill, Tip (Macmillan, 1980). As a "newspaper entrepreneur," he has also helped found and direct now-flourishing weekly newspapers in Reston and Burke, Virginia.

Currently, he is pursuing a "fascinating" story he'll tell us about, to be given full-blown USA TODAY coverage in May, on how the Vietnam turbulence and student unrest of the 1960s affected the cohort that came of age in that decade, as revealed, for example, in what is apparently the highest cohort divorce rate recorded so far in the U.S.

We look forward to seeing you on April 16. Friends and colleagues are most welcome.

Sincerely,

Conrad Taeuber Tom Merrick

Conrad Taeuber Tom Merrick

P.S. Please give PRB a call (639-8040) by 5 pm, Tuesday, April 15, if you can, to let us know if you and/or others plan to attend.

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 19104-6297

School of Arts and Sciences

DEPARTMENT OF ECONOMICS
3718 LOCUST WALK

18 March 1986

Mr. K.C. Zachariah
The World Bank
1818 H Street, NW
Washington, D.C. 20433

Dear Zachariah:

I was very sorry to learn of the outcome of REPAC's evaluation of our Sierran Leonean proposal on "Determinants of Infant and Child Health and Mortality and of Fertility in Sierra Leone." Based on our meeting with the representatives of REPAC, I do not agree with the conclusion that "the proposed analysis of the data was considered to be extremely weak," but am disappointed that our effort at communicating further in our memo apparently was not effective. I would be interested in seeing the attachments (i.e., the referee reports) which apparently you received, but which were not forwarded to me. Would you please send me copies of those reports.

Please send a copy as attached KZ

Sincerely,

Jere R. Behrman
William R. Kenan, Jr. Professor
of Economics

JRB/arf
cc: N. Birdsall

THE WORLD BANK INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE:

TO:

FROM:

EXTENSION:

SUBJECT: Research Proposal "Determinants of Infant and Child Health and of Mortality and Fertility in Sierra Leone" - Comments

1. I enjoyed reading the proposal and learned from it. My initial question about the research proposal was: Are determinants of child health and mortality and of fertility country specific or are these general? This question had three parts:

A. If these are general and known then the investigation in Sierra Leone (or any country) could focus on separating those which are the most important, and to identify those which are subject to control and modification by the Government;

B. If these are general and not known then confining the study to Sierra Leone may not produce evidence which could apply to Sub-Saharan Africa (as indicated in the proposal). The sample should then be broadened to include other countries - with reasonable representation of the range of conditions in Sub-Saharan Africa.

C. If, however, the determinants are known but are country specific the "A" type analysis could bear dividends.

Both my gut feeling and personal experience of living with very poor people incline me to believe that the determinants are general and known 1/: for example, imbalanced nutrition, contaminated water supply, lack of access (physical and/or economic) to medical facilities, lack of knowledge about what to do in a variety of emergency or non-emergency situations. The series of questions 2/ listed on Pages 2 and 3 cover a very wide domain from micro-level specifics to complex questions about impacts of different food price, other prices, subsidy and other income affecting policies. Answers to the whole range of questions would be desirable, if feasible. Answers to the complex questions would be especially important but, it seems, would require a sample which provides variability in policies (intra

---

1/ I may be quite wrong in my presumption; if so, I would welcome correction.

2/ "Types of questions that we will explore ....." (Page 2).

country or inter-country). A single country sample may not be enough??

2. I reviewed the theoretical framework, and while I acknowledged the need to have the indicated range of variables and depth of information I was not sure about the feasibility of getting the needed information. I looked at the questionnaire and found it to be quite comprehensive, but again I was not sure if it could be filled with meaningful data. Looking at the (impressive) qualification of Dr. Behrman I felt that his association would definitely be beneficial to the project - the data collection as well as making sense out of the data (ie research). The cost of Dr. Behrman's association will, however, double the cost ie add $150 thousand. So I struggled with the question of what would be the net total (research plus better data collection) gain if the research component was added.

3. I discussed the issue of benefits with my programs colleagues and concluded that the principal operational benefits would be the (1) possible improvement in the quality of the data proposed to be collected under the PHN project; (2) temporary strengthening of concerned indigenous institutions; and (3) ordered presentation of the collected data even if the "ordering" and the "analysis" does not produce research dividends. I understand from my program colleagues that the earlier discussion with PHN had focussed on the need for ordered base line data. The expected operational benefits may not materialize if the research focus remains dominant; the proposal's focus could, however, be re-ordered to emphasize improved data collection rather than research about determinants of infant health and mortality. The research effort could be used to improve data quality through appropriate feedback during the data collection process to improve its relevance. The shift would produce maximum benefits for both the operational and research objectives, but would safeguard the vulnerable part through explicit emphasis on ordered data generation.

4. We would support the proposal with the above caveats. A few margin comments are attached.

THE WORLD BANK INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE: February 11, 1986

TO: REPAC Members

FROM: Guy Pfeffermann and Dennis de Tray DdT parch

EXTENSION: 75903, 33480

SUBJECT: Subcommittee report on "Determinants of Infant and Child Health and Mortality, and of Fertility in Sierra Leone"

The proposal requests $150,000 of RSB funds to undertake a household survey in Sierra Leone households and subsequent analyses of economic and demographic interrelationships This sum would be supplemented with $150,000 of project funds and 45 weeks of PHN staff time ($162,000). The proposal states that work would take three years starting with notification of REPAC approval although the start date would, in fact, depend on Board approval of the underlying health and nutrition project.

The project's three main foci are: (1) the design and administration of a national household survey emphasizing health and demographic outcomes, (2) the provision of basic health, nutrition, and fertility statistics for Sierra Leone and for the country's various subregions, and (3) an econometric analysis of determinants of children's nutrition and health status and of parents' fertility behavior.

We received reviews of this application from two external and two internal referees and one of us (de Tray) provided additional comments (see the attached "Notes on Sierra Leone Proposal"). However, the following summary is based only on the views of the four official reviewers. Of these one was strongly positive, two supported some parts of the proposed work but questioned others, and one was strongly negative.

With the exception of the favorable reviewer three themes can be found to varying degrees in the reviews. These are first that the issues on which this application rests are important and would benefit from additional research; Second, that Sierra Leone and the Bank would benefit from improved health, nutrition, and fertility data for that country; and, third, that the proposed econometric analysis isn't sufficiently well justified or described to warrant strong support.

On receipt of the formal reviews we met with Messrs. Zachariah and Behrman, and Ms. Birdsall to discuss objections raised by reviewers and our own reservations. This meeting ended with a request by the proposal's authors for permission to submit an "addendum" to their original application that would attempt to address the reviewers' and our criticisms. This addendum was forwarded to us in early January.

For the most part the addendum covered no new ground although it did attempt to change the proposal's emphasis especially in the second phase of the project. Whereas the original application had raised several estimation problems that could only be resolved with panel data the addendum suggested that the bulk of the proposed analysis would be carried out on the large cross sectional survey rather than on the much smaller panel survey.

In assessing the original proposal, the reviews thereof, and the authors' addendum, the following points deserve emphasis:

- o The proposal suffers from an internal inconsistency of approach. The first part (presumably to be undertaken by Mr. Zachariah) sets out an exploration of "how one demographic phenomenon [is] related to another" which will rely for the most part on cross-tabulations; the second part (presumably written by Mr. Behrman) then lays out a detailed argument for why such an analysis is inappropriate and potentially misleading;

- o Even given this inconsistency the reviewers generally saw the first part of the proposal (the data collection and descriptive analysis) as having a high payoff but three out of four raised serious questions about the proposed econometric analysis;

- o Although the reviewers generally supported the need for additional data on demographic and health conditions in Sierra Leone (and in Africa in general) several questioned the proposed survey design in terms of information coverage and realism.

REPAC has three alternatives is ruling on this application: (1) Full funding conditional on Board approval of the PHN project. (2) Partial funding, roughly $70,000, to supplement resources to be provided by the health and nutrition project. These funds would help ensure the quality of survey operations, allow for production of a first set of descriptive statistics and some basic and simple regressions, and leave the issue of a more elaborate econometric analysis to be settled at a later date. Or, (3) reject the application outright. Based on the above discussion we find it difficult to support full funding for the application; however, the second option deserves consideration by REPAC.

Attachment

Notes on Sierra Leone Proposal

1. The proposal promises two products: (1) improved estimates of mortality, fertility and health for Sierra Leone; and (2) an econometric analysis of the determinants of these variables. Although two products are promised the proposal is virtually mute with regard to the first. This is not a problem so long as the sponsors want REPAC to judge this submission on the second part of the study only. This is tantamount to saying that the non REPAC funds are to be used to produce the improved statistics and the REPAC request to support Mr. Behrman and his econometric analysis.

2. This raises several problems. In the first instance the proposal is very weak on the relationship between the proposed econometric analysis and existing or future Bank or Sierra Leone policy. While such links exist, I am basically sympathetic with the statement given by the Region questioning the value of the "elaborate multivariate analysis." As it now stands the proposal sets out what appears to be an overly complex framework from which it extracts virtually nothing except a statement that it is very difficult to get unbiased estimates of behavioral parameters. It is particularly telling that after pages of model formulation the proposal never specifies the actual equations to be estimated. Further, there seems to be very little connection between data needs as defined by theory and data that will be collected. Put another way, the equation that will be estimated is so far removed from the ideal as specified in Eq. 11, p. 17 that one wonders why the authors bother at all.

3. The substantive part of the proposal begins on p. 9 and runs through p. 20. In these pages the sponsors set out a theoretical model of family behavior based on the farm household production model. This section also contains a discouraging discussion of the problems with previous empirical work based on this or related models. One is left with the impression that such work is virtually impossible to do correctly given any existing or foreseeable household data set (see, especially, the discussion beginning on the bottom of p. 17 and continuing onto p. 18). The implication is clear that only through panel data can one produce even roughly justifiable empirical estimates of mortality, fertility, and health determinants. This view is reinforced in the data section when endogenous income and wage effects are said to be dealt with through family fixed effects.

4. Thus, as it now stands the proposal asks REPAC to support a study of the determinants of mortality, fertility, and health using 750 Sierra Leone households. The strengths of the data to be drawn from these households lie not in the area of socioeconomic variables but rather in the demographic and health area. This raises a question regarding suitability of the proposed data set for the suggested analysis. Also, there is a very similar effort now under way in the Ivory Coast which will provide health and fertility information on 2400 households over a two year period and anthropometric information on 2000 households. This survey will also include a panel element which will contain 400 households with anthropometric measures during the study's first two years. Might it not make sense to explore some of the methodological issues, raised in the Sierra Leone proposal, using this existing data before we devote resources to new data?

5. Timing issues: There are two types of timing issues not dealt with in the proposal. The first concerns the nature of the mortality, fertility, and health production functions. These are inherently long term processes but the key explanatory variables are for the most part contemporary, i.e., based on the year of the survey. Is it legitimate to use current time variables to explain a long run process? Second, the authors make much ado about the difference between exogenous and endogenous variables and the poor treatment this distinction has received in other studies. But surely this distinction depends on the time dimension of the question being asked. If we're talking about the next generation's behavior then the sky's the limit -- for all practical purposes everything is endogenous. If, however, we're talking about the behavior over the next year for a couple in their late twenties then many things are fixed. Over a five or ten year horizon the list would be shorter than for one year but still much longer than for the next generation.

6. More on endogeneity: The econometric part of the proposal is a bit self-serving in its dealings with the endogeneity issue. When it suits the authors' purpose the world is virtually fully endogenous as on pps 17 and 18; at other points some obvious choice variables, for example, household structure and composition, land and livestock ownership, are said to be predetermined. Since endogeneity is often in the eye of the beholder, the authors leave themselves open to the risk of being hoisted on their own petard on this issue.

7. With regard to the actual survey operations I remain skeptical about the time table given in the proposal. The LSMS experience in both the Ivory Coast and Peru suggests that it takes much longer than this to get a <u>good</u> survey in operation (and, my guess is that both these countries are at a higher level in terms of survey know how than is Sierra Leone). Further, getting data out of the field and into analyzable form is generally a long and painful process. The LSS data management system does seem to be working exceptionally well in this regard but so far as I can tell there are no plans to use those techniques in this project.

THE WORLD BANK / INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE

TO

FROM

EXTENSION

SUBJECT Research Proposal on Sierra Leone

1. The proposal aims at:

   (i) Providing descriptive statistics on morbidity, mortality and fertility in Sierra Leone, useful for Bank lending policies, and health and other policy makers in Sierra Leone.

   (ii) Building statistical and analytical capabilities in Sierra Leone, in the area of population and health policies, and

   (iii) Learning more about the determinants of child morbidity, mortality and fertility.

2. The proposal is unlikely to deliver on any of these three promises in a satisfactory way. I therefore strongly advise against funding. The enclosed comments explain briefly how I reached this conclusion for each of the three objectives separately (if desired, I could produce a more detailed set of comments).

3. Since each of the three objectives are worth pursuing, especially in a Sub-Saharan African setting, I enclose some very brief suggestions for transforming the current proposal into a more acceptable one.

Comments on: "Determinants of Infant and Child Health and Mortality and of Morbidity in Sierra Leone".

1) The proposal demonstrates convincingly the need for better data on mortality, morbidity and fertility in Sierra Leone. Unfortunately, the proposed survey activity can only be characterized as a second rate/ill-developed and naive proposal that is very unlikely to produce statistics that can help policy makers to "understand how economic developments are likely to affect mortality and fertility", to answer convincingly any of the 13 (!) questions listed on page 2/3, or ("the purely descriptive dimensions of the project") to have "an immediate impact in improving understanding of current reality".

   The main weakness of the proposal is that the survey/documentation activity (perhaps the most important, and definitely the best defended part of the proposal) does not get the attention it deserves. From the definition of household members (as suggested in Annex B, page 2), of the decision <u>not</u> to include a key variable such

as household income, to the lack of mentioning and specifying training for supervisors, interviewers, etc., the whole survey enterprise seems to be geared to collecting data for some sophisticated multi-variable analysis (but see below), while ignoring the need to produce reliable and very basic descriptive statistics.

2) The second best defended objective of the proposal is the need to develop indigenous survey and research capacity in this area in Sierra Leone. Unfortunately this is never worked out in the proposal. Moreover, while the proposal states that one has to start "almost from zero base" regarding survey and data processing activities (p.9), it expects to need just 2 months for preliminary survey work, plus another 2 months for "printing, pretest of questionnaire, etc." This part of the proposal is naive at best and/or suggests a complete lack of interest in developing indigenous survey capacity and/or - more seriously - shows a complete lack of understanding of the complexities of doing survey work in LDC's. In addition, it further reduces the likelihood that reliable descriptive statistics, useful for Bank and other policy purposes, will be produced as output of this proposal. (This is especially damaging to the proposal since ensuring "the quality of field work" is one of the main justifications to ask for REPAC funding.

3) The primary objective of the study is stated as "to learn more about the determinants of infant and child health and mortality and of fertility in Sierra Leone". The theoretical framework is that of combination of the household firm/farm model with the quality-quantity fertility human-capital model". (p.9). The bulk of the proposal is devoted to this model and the authors clearly show that they know what they are talking about. Unfortunately, they promise much more than they can possibly deliver. Given the proposed survey activities it is highly doubtful that useful results on the main issue (determinants of morbidity, etc.) will be obtained.

The key equation of the proposal is equation (11) which relates the endogenous variables (the "demand" for health, for example) to a set of exogenous prices and endowments. I list the variables belows: (suppressing superscripts):

Endogenous		Exogenous	
H	health	P_C	price of consumption
N	nutrient intake	P_H	price of H
C	consumption	P_C^*	price of consumption
C_B	(?)	P_E	price of E
C_H	consumption of health goods	P_L^*	price of labor
C_C	contraceptive use	P_A	price of A
O	Occupation	P_Y	price of
P_L	wage	r	rent

T_H	time dedicated to health related activities	P_K	price of capital (land etc.)
Y	household firm/farm product	E	education of parents
T_L	leisure time		
T_W	labor market work time	η_i	generic endowment
T_E	school time	Ω	household endowment
L	hired labor for firm/farm	θ	community characteristics
A	intermediate inputs for firm/farm	ξ	"taxes"
E	education of child	R	transfers minus taxes
B	number of births	W_i	physical assets (?)
M	child and infant mortality	$\sum_i$	(?)
S	number of surviving children	d	depreciation rate
W_F	financial assets (3)		

Clearly this is a very "general" model that allows for the analyses of occupational choice and wage equations, for the estimation of consumption and labor supply functions, for extensive time use studies, for studying many more household decisions, as well as for a study of the determinants of health (H), fertility (B) and mortality (M). What the proposal lacks is a clear description of how this general model is going to be translated into a more tangible form. It remains unclear exactly which equations will be estimated, which variables will be used as proxies for-say-health, and what can and cannot be learned from these estimated equations.

For example: a lot is being made of the proposed panel character of some of the data. First of all this relates only to 750 households. Secondly, in spite of the attractiveness of panel surveys, they are not a solution to every problem. The one place where equation (11) is made more concrete, on page 19 equation 11B) where ΔH (the change in health) is stated as a function of ΔV (the change in V, where V includes prices, parental schooling, etc.) The "beauty of 11B" is that all unobserved fixed effects are controlled for. But that does not mean that all problems have been solved. First, which dependent variables are of interest in first-difference (Δ) form? Of the three sets of variables, health, morbidity and fertility, only the first seems a potential candidate. But still, what can be learned about one year changes in health status? Which health measures can be used to render such an analysis useful? The proposal does not specify this and the issue is certainly less than obvious. Secondly, which observable exogenous variables (ΔV) show sufficient information in first difference form? Mother's education (as in the example)? Inter-regional variation in-say-the price of food relative to non-food? Inter-regional variation in the availability of health-care facilities? In most cases it seems very unlikely that ΔV takes on any other value than zero.

Or do the authors envision a model in which the change of an endogenous variables is estimated as a function of the level of the exogenous variables. What is the interpretation of such functions? How do they contribute to answering the main questions asked? I am not saying that they don't, but the proposal lacks any information that shows clearly how the analyses relates to the policy issues.

In short, the authors do acknowledge serious data problems but depend too much on the magic of the "fixed effects" model as a solution to all problems. The pure cross section analyses is not sufficiently specified, while the analyses of the panel data raises at least as many questions as it intends to solve. Questions that are not addressed in the proposal.

4. In order to transform this proposal into a more acceptable one (that has the same three objectives) I suggest the following:

   (i) Given the need for reliable data, descriptive statistics and the development of indigenous research capacities, the authors should take a much more realistic approach to the survey work. The Bank has developed a comprehensive survey instrument and methodology (LSMS) that is currently being tested in Ivory Coast and Peru. Moreover first results strongly suggests that the methodology is highly successful. It seems inconceivable that the same institution that funded this development would fund subsequent survey efforts of unacceptably low quality. Some way to benefit from the Bank's in-house expertise on these matters should be found to make the proposal more promising with regard to its first objectives.

   (ii) As for the research: the proposal should be much more explicit about what questions will be answered and how. Which equations will be estimated, which variables used. The authors of this part of the proposal are clearly very competent in this field and will be able to produce an acceptable academic report even out of the low quality data. But the policy relevance of the research needs to be (and can be) demonstrated, not merely stated. The research effort will undoubtedly benefit tremendously if the survey work is dealt with in a more professional way.

THE WORLD BANK INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE March 6, 1986

TO Mr. John D. North, Director, PHN

FROM Ma. Vilma V. Mataac, VPERS

EXTENSION 33487

SUBJECT Research Proposal: Determinants of Infant and Child Health and Mortality and of Fertility in Sierra Leone

1. Your department's request for $150,000 from the RSB funds to undertake a household survey in Sierra Leone and subsequent analyses of economic and demographic interrelationships was evaluated by a REPAC subcommittee. It had also been reviewed by two internal and two external referees whose comments are attached. REPAC subsequently considered the proposal at its meeting on February 25. Its recommendation is reported below.

2. As the data collection was being undertaken and financed by the PHN project, REPAC did not consider any additional funding from the RSB for this task as being justified, particularly as the proposed analysis of the data was considered to be extremely weak by most of the reviewers. As such, REPAC regrettably decided not to fund this proposal.

3. This recommendation was endorsed by the Vice President, ERS.

cc and cleared with: Mr. D. Lal

cc with attachments: Ms. N. Birdsall,
Mr. K. C. Zachariah, PHN

cc without attachments: REPAC members

Reviewer's Report:

"Determinants of Infant and Child Health and of Mortality and Fertility in Sierra Leone."

This is a well written and carefully thought out proposal to gather and analyze new data on critical demographic behaviors and their determinants in Sierra Leone. Since I am not knowledgable about existing demographic data for Africa, in general, or Sierra Leone, in particular, I am taking the statements made in the proposal about the poor quality and quantity of existing data at face value. Of course, because a significant component of value of the proposal rests on the validity of the claim that it will greatly increase basic demographic data in Sierra Leone, it is important for someone with expertise in this area to verify this claim. Although the data to be gathered fall considerably short of the detail provided by the 1974 Malaysian Family Life survey, they would add to the lamentably small set of micro-data sets which combine fairly detailed information on both demographic and economic behavior in developing countries. In my view, such data are crucial if we are to gain a firm understanding of the determinants of fertility, mortality and health in these societies.

The theoretical framework to be employed in this proposal represents a fairly elaborate, but nonetheless conventional version of economic theories of fertility, household consumption and household production. The theory plays two somewhat distinct roles in the proposed project. First, it provides an organization framework to help guide the development of the questionaire and sampling scheme. Second, it provides the basis for the derivation of hypotheses about the determinants of demographic and health outcomes that will be a major analytic objective of the study (beyond the production of descriptive statistics).

In most respects these two roles are complementary, although in some cases they may conflict. For instance, a possible conflict is illustrated on p. 11 when the investigators note that they will use a one period model under certainty even though issues concerning uncertainty and dynamics might be interesting to explore. If they wish to use their model to derive hypotheses, they are probably correct in suggesting that incorporation of uncertainty and dynamics would render their model (analytically) intractable and, therefore, unproductive of testable hypotheses. It does not follow, however, that this should deter them (in their role as data producers) from attempting to measure various aspects of uncertainty concerning, e.g., child survival, future prices, etc. if such uncertainty is of potential importance in determining behavior. I would encourage them to rethink their position on this. (It may be noted, for example, that they <u>are</u> proposing to obtain full birth histories, even though their formal model cannot deal with the sequential aspects of fertility behavior.)

The theoretical discussion fails to mention ideas such as those of Caldwell [1976] or Willis [1982] who stress the relationship between intergenerational transfers and demographic behavior nor does it deal with the impact of imperfect credit markets (Hammer [1981]) and, consequently, no data will be gathered on variables related to these issues. Even if it is not feasible to go into great detail, it might be possible to ask a few questions to determine the degree to which parents to derive benefits from their children's labor and the degree to which they expect to rely on their children

for old age support. Some effort could also be made to determine the degree to which respondents currently provide support for their own parents.

On the whole, the reservations I have expressed are minor (and possibly remediable) in view of the potential value of the new data to be produced. The plans for analysis also appear to be well conceived and suggest considerable sophication concerning issues of causality, identification and the role of unmeasured variables. The staffing of the project is strong: Professor Behrman is a leading figure in the analysis of economic and demographic data and Mr. Dodoo appears to be well qualified for his role. The involvement of local institutions in data collection and analysis is a significant added benefit. The budget appears to be quite reasonable.

References

Caldwell, John C. "Toward a Restatement of Demographic Transition Theory." Population and Development Review 2 (September/December): 1976.

Hammer, J.S. "Children and Savings in Less Developed Countries." Discussion Paper 81-27. Department of Economics, University of California, San Diego, 1981.

Willis, Robert J. "The Direction of Intergenerational Transfers and Demographic Transition: The Caldwell Hypothesis Reexamined." In Yoram Ben Porath (ed.) Income Distribution and the Family A Supplement to Population and Development Review (1982): 207-234.

October 14, 1985

I have reviewed the research proposal "Determinants of Infant and Child Health and Mortality and of Fertility in Sierra Leone." I agree that the basic survey would be very valuable and is long overdue. However, I do not find this research proposal to be sufficiently well developed to indicate what it is that the Bank will be getting from the research component of this survey effort. I also do not find the role of the research consultants to be sufficiently described.

To the extent that the research consultant services are integral to carrying out the survey, I would support their efforts. To the extent that they are asking for money to carry out economic/demographic research, I believe that substantially more information concerning their theoretical and econometric models, their research hypotheses and the policy implications of their research needs to be added to their current proposal.

The experience and expertise of the research consultants are of top caliber. It is probable that they will come up with a meaningful plan of analysis and carry out a successful research project. I would like to see that plan of analysis in some detail before recommending approval of the research component of this survey project.

I hope that you find my comments useful. If you have questions or comments, please do not hesitate to contact me. I appreciate the opportunity to serve the World Bank in this role.

Sincerely yours,

Determinants of Infant and Child Health and Mortality
and of Fertility in Sierra Leone

Project Proposal Review Comments:

On the whole, the proposed survey appears to be of great potential value in the areas of: i) determining the causes and correlates of child and infant health status in Sierra Leone, ii) redressing the inadequacy of reliable data on the relatively high rates of infant and child mortality in Sierra Leone, and other parts of English-speaking West Africa, iii) improving the demographic and statistical research capabilities of the relevant counterpart institutions in Sierra Leone, and iv) providing data useful in comparative LDC research on infant and child health.

The proposed research design is based on an microeconomic human capital theory of fertility stemming from the work of Becker and others. Prof. Behrman clearly has substantial expertise and experience in working with this type of analytic paradigm. The basic theoretical structure is reasonable. However, it is inadequately developed.

No maximization conditions, second order conditions or comparative statics results are presented. Thus, no testable hypotheses concerning the potential impacts of observable variates are derived from the model that is outlined. In fact, it appears that the only value of the model, as developed, is in helping to categorize potentially observable variables into endogenous and exogenous groupings.

In essence, the researchers are asking for as much money as is required to implement the original survey, to carry out some rather amorphous econometric analysis of data that will be collected. The basic descriptive statistics concerning infant and child health that would flow out of the statistical survey are straightforward, and presumably could be developed at lower cost using a less high-powered research team. It is not at all clear what the marginal value to the World Bank will be of adding this particular research component to an undoubtedly highly useful survey, since the analytic goals of the research are not spelled out.

Several of the key questions that are not answered by the proposal include:

i)- What is the precise role of the consultants? Are they integral to the survey and data collection tasks or are they just using the data that is collected to carry out an as yet undefined research agenda?

ii)- If the answer to the latter question is yes, could not some portion of the proposed research funds be devoted to extending the survey portion of the proposed project (e.g. adding an additional point in time, adding another country, etc.), while in the meantime, the research consultants could hone in on what it is that they wish to test?

iii)- With some exceptions, the proposed survey appears to gather, at a reasonable cost, most of the information that economic demographers would want. Perhaps if the proposed questionnaire and the ultimate data were made more widely available, some of the researchers in this field would present the Bank with a more specific plan of analysis at the same or lower cost.

iv)- Why are contingency funds required at 15 percent of the total project budget? What are these contingencies?

Additional Comments:

While critical of partial and quasi-reduced form specifications of child and infant health, the authors do not state what their model will do to allow true structural specification and estimation of the various simultaneous relationships between health, nutrition, consumption, income, wealth, etc. In fact they propose to estimate only a set of reduced form relationships.

The researchers plan to augment their cross sectional survey with a 15 percent resurvey after one year's time. This will create a panel data base of 750 households with obervations at two points in time. They correctly point out that first-order differencing of the endogenous and exogenous variables will allow them to adjust for individual-, household-, and region-specific fixed effects. However, this additional observation in the time domain will not allow them to gain much insight into the dynamic structure of household decisionmaking, particularly with regard to infant birth and survival, since those decisions have longer adjustment lags.

The temporal stucture of household decisionmaking is crucial to determination of what is endogenous and what is exogenous in a cross sectional data base. For example, both wealth and the number of surviving children could be considered as predetermined

in short run consumption decisions. Moreover, the current pattern of infant births and survivals, and the levels of child health, could more reasonably be thought to depend on a vector of past input/consumption prices as well as on predetermined past levels of the endogenous variables in their model. It is likely that more information could be collected on past prices at the regional level and past household and individual consumption, production and health status than is detailed in the proposal.

Fixed effects error components models require that everything that is unobservable and individual-specific is immutable over time. Lag structures on the endogenous variables will be both individual-specific and changing over time. They will not be eliminated through the first-differencing procedure. If the true model does have a dynamic structure, then the fixed effects model will be open to omitted variables bias.

The researchers do not describe the kind of econometric specifications that they plan to employ. Three of their primary endogenous variables, mortality, births and survivors, are all limited-discrete (ordered) dependent variables with lower truncation points at zero. Some type of ordered logit or probit might be appropriate, although the first-differencing required for fixed effects adjustments will substantially complicate any type of limited-dependent variables estimation approach. They do not describe what transformations of the four anthropometric measurments that they propose to collect will be used as proxies for child health status, and what implications use of these variables will have for the appropriate econometric specification.

The researchers mention in passing that they plan to utilize a latent variables representation of health status. What do they mean by this specifically? What are the indicators and causes of an unobservable health status in their model? What other variables are to be treated as unobservable? How would the model be identified? Do they plan to use the joint-normal assumptions of the LISREL package in the face of all the discontinuities and boundary constraints on the endogenous variables described above?

Many of the variables that are to be collected in the survey are dependent on interviewee recall. How do the researchers plan to examine the reliability and validity of these survey instruments? What methods will be used to ensure response accuracy and reduce interviewer bias? Wouldn't it be useful to collect more medical history information on household members?

INSIDE THE BELTWAY

Family planning

The average woman in Kenya bears eight children. In Bolivia, most women have five or more children. The average fertility rate for all developing nations is 4.1, compared with 1.8 in the United States. "Sustained population growth rates of this magnitude are unprecedented in history," according to a new study from the National Research Council, an affiliate of the National Academy of Sciences.

An argument for enforced family planning? Not exactly.

Despite these growth rates, developing countries have consistently increased levels of income per person, literacy and life expectancy over the past 25 years. Population growth can actually move a country into the modern world of "better-defined property rights, larger integrated markets, more agricultural research, and so on." Events have not borne out the theory that increasing populations create scarcity, according to the report. Rather, population pressures spark adaptive strategies.

The report nonetheless backs up family planning advocates, saying slower growth is beneficial in education and health care areas, and particularly to economic development in those countries.

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THE WORLD BANK AND INTERNATIONAL FINANCE CORPORATION

Manual Transmittal Memorandum

Distribution: Administrative Manual Holders

March 12, 1986

Administrative Manual Statement Adm 10.20
Security of Records

1. In the coming months, Administrative Manual statements and circulars housed in the "old" binder will be converted to the new Administrative Manual. This will be accomplished as quickly as possible to avoid confusion and to provide staff with a complete and up-to-date reference source.

2. Attached for insertion in your new Administrative Manual is Statement Adm 10.20, "Security of Records." It replaces Statement 5.012, of the same title, which is located in the old binder.

3. Please route this Transmittal Memorandum to the staff in your unit to let them know of this issue.

Attachment

Released by Records Management Division, Room N-1004, Ext. 61177

Administrative Manual

SECURITY OF RECORDS

PURPOSE

1. The purpose of this Statement is to implement the policy of the World Bank and the International Finance Corporation (IFC) set out in Administrative Manual Statement (AMS) 1.01, "Directive on Disclosure of Information,"[1] insofar as it requires security classification for some records of the institutions.[2]

GENERAL POLICY

2. While much of the information held by the Bank and IFC is considered "public," that is, available in published form or on request to any individual, whether inside or outside the institutions, certain information, because of its nature, content or the conditions under which it was acquired, must be protected from unauthorized disclosure. To this end, records containing such information are assigned one of three security classifications. In descending order of restrictiveness of access, these are: *Strictly Confidential, Confidential* and *For Official Use Only*.

3. *Originating offices*[3] are responsible for (a) classifying, in accordance with the provisions of AMS 1.01, marking and authorizing distribution of records which they create or receive from outside sources; and (b) downgrading such records to the next level when and as appropriate.

Definitions

4. The security classifications are defined, as follows:

(a) *Strictly Confidential:* a record containing information of a highly sensitive nature requiring that access be confined to the recipient(s) designated by the originator.

(b) *Confidential:* a record containing information to be confined to recipients who have a need to know as determined by the originator (except that authorization is not required for further distribution on a need-to-know basis within a recipient office of the institutions).

(c) *For Official Use Only:* a record containing information available to all staff of the institutions but to which external access is limited.

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[1] Statement 1.01 is contained in the old version of the Administrative Manual. When the Statement is reissued, it will carry a different number. Administrative Manual holders will be notified accordingly.

[2] In the World Bank and IFC, *records* are defined as all letters, memoranda, reports, telexes, charts, maps, photographs, films, recordings, machine readable materials or other documentary materials produced or received in the course of the work of the institutions, and preserved, or appropriate for preservation, as evidence of their organization, functions, policies, procedures, operations, or other activities, or because of their informational value. For purposes of this Statement, *records* include both originals and copies.

[3] In the case of a record which originated outside the institutions, the office first receiving the record for action or which has acquired it for purposes of its own work is considered the "originating office."

5. Staff should refer to AMS 1.01 in determining which, if any, of the three classifications is appropriate. If it is determined that a need for security classification exists, the classification which imposes the least constraint on access consistent with adequate protection of the information contained in the record should be selected. Should the recipient of a record question the access indicated or permitted by the originator either pursuant to classification or through failure to classify, the matter should first be discussed with the originator. If necessary, a determination concerning access should then be sought from the responsible official designated in AMS 1.01. Where a record coming into the Bank or IFC carries a classification which is not employed by the Bank/IFC (e.g., "Secret") or which, under Bank/IFC usage, would restrict access more than was intended by the external source, it should be appropriately reclassified.

MARKING SECURITY CLASSIFICATIONS

6. The originator should ensure that the marking "Strictly Confidential" appears on the cover and all pages of records so classified. The marking "Confidential" or "For Official Use Only" should appear on the cover and first page of records so classified.

7. The originator should ensure that documents prepared for consideration by the Executive Directors and standard series reports (i.e., Staff Appraisal, President's, Economic, Sector and Project Performance Audit Reports) classified "For Official Use Only" carry on the cover, first page and, where appropriate, on the transmittal memorandum that marking and a caveat which reads "This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank or IFC authorization." Where such records also require the classification "Confidential," both markings and the caveat should appear on the cover, first page and, where appropriate, on the transmittal memorandum.

8. Until all records in file folders can be marked as required by this Statement, file folders themselves should be marked with the most restrictive classification likely to be required by the records they contain. As individual records are removed from the folder, they should be appropriately classified in accordance with AMS 1.01.

Special Categories of Records

9. When a security classification is required, the originator should ensure that the following records carry the appropriate classification marking, as indicated:

(a) *Charts, maps and drawings:* under the legend, title block or scale or in the upper right hand corner.
(b) *Photographs:* on the verso side for prints; on the envelope for negatives.

(c) *Transparencies or slides:* if possible, on the medium itself, otherwise on the frame or holder.
(d) *Microfilm:* on the film itself.
(e) *Punch card decks:* on the first and last cards, and on any individual card removed from the deck.
(f) *Computer magnetic storage media:* with external and/or internal notations.
(g) *Computer print-outs:* on the first page and the front and back covers.

SAFEGUARDING RECORDS

10. Staff are responsible for taking measures to ensure that classified records in their custody as originators or users are appropriately safeguarded and not made accessible or available to unauthorized individuals. Specifically, records classified as "Strictly Confidential" must be under lock or given equivalent protection when not in use. Records classified as "Confidential" should be protected, e.g., in binders, cabinets, etc., so that they are not visible to unauthorized individuals when not in use. Procedures for disposal of classified records are contained in Annex A.

11. Staff should take proper safeguards (including authorization by the originating office for release) when transmitting records classified "Strictly Confidential" or "Confidential" inside or outside the Bank and IFC. Any such records sent outside the institutions should be enclosed in two envelopes. The inner envelope should be marked with the appropriate classification and sealed; the outer envelope should carry no classification marking. Double envelopes should likewise be used for transmitting "Strictly Confidential" records within the Bank and IFC. "Confidential" records distributed within the institutions should be in appropriately marked sealed envelopes. Where the originator wishes to assure that access to a record will be confined to the recipient and will not be made available to a person acting for or under instructions from the recipient, the words "Personal" or "To be Opened Only by the Addressee" should be added to the "Confidential" label.

12. When a group of physically connected records includes a classified record, the entire group is considered classified. Access to and treatment of the group should be as required by the record with the most restrictive classification. However, a record separated from the group should be handled in accordance with its individual classification.

DOWNGRADING

13. At the time of classification, the originator should indicate when the record should be reviewed for possible downgrading. When feasible, the originator should place specific downgrading instructions on the record, such as when, in what circumstances or under what conditions it might receive a lower classification.

14. When a record is downgraded, the originator should cancel all prior markings and enter new instructions, if necessary, as follows:

Downgraded to: _____.
Date: _____; Authorized by: _____.

15. The Records Management Division should annually review those operational records classified "Confidential" or "Strictly Confidential" in its custody for possible downgrading by the originating office.

ORGANIZATIONAL RESPONSIBILITY

16. The Administrative Services Department (ADM) is responsible for developing policies and procedures to safeguard all records and to ensure that staff comply with the general provisions of this Statement. The Records Management Division, ADM, and the Security Division, ADM, share administration of the program as stated in Organizational Manual Statement 1.61, "Administrative Services Department.".

Questions regarding this Statement should be referred to the Chief, Records Management Division, ADM.

March 1986
Statement Adm 10.20
Annex A
Page 1 of 1

Administrative Manual

DISPOSAL OF CLASSIFIED RECORDS

1. Staff should use "burn bags" (which are available from the Stockrooms, Item B-0045) to dispose of all classified records, including drafts, one-time-use carbon paper, notes, etc. Burn bags containing classified records should be stored in locked file cabinets until they have been collected.

2. The Security Division, Administrative Services Department, is responsible for the collection and final disposition of classified waste. Collection will be made between 10:00 a.m. and 4:00 p.m. in accordance with the following schedule:

Monday:	A, B, and C Buildings
Tuesday:	D, E, and F Buildings
Wednesday:	I and N Buildings
Thursday:	H and Satellite Buildings
Friday:	S Building and Special Pickups

3. Uniformed contract security guards will conduct the pickups. Prior to collection, staff should fold over the top of each burn bag used and staple them shut. The security guards will collect the bags from office secretarial staff.

4. Special pickups are also available. If an office needs to dispose of a large amount of classified records and does not have adequate storage space to safeguard them, staff should call the number listed under "Burn Bags" in the Services Section of The World Bank/IFC Telephone Directory to request a sufficient quantity of large "postal" bags, and to arrange a special pickup *(on Fridays).*

5. Certain classified records of the Accounting, Personnel Management, and Compensation Departments that pertain to payroll and personnel matters require shredding before disposal. In these cases, the Security Division will, on request of the departments involved, collect, shred and dispose of these records.

Questions regarding these procedures should be addressed to the Chief, Security Division, Administrative Services Department.

POLICY AND RESEARCH DIVISION

N Birdsall

J Akin
H Barnum
R Bulatao
D Chernichovsky
D Gwatkin
K Hall
A Hill
W McGreevey
V Paqueo
K Zachariah

L Chester
S Patel
D Prevoo
M Shizari
L Truong
M Vu

NB

FORM NO. 75
(6-83) THE WORLD BANK/IFC

ROUTING SLIP	DATE: February 25, 1986
NAME	ROOM NO.
To All Department Directors of	
IFC and IBRD	

	APPROPRIATE DISPOSITION		NOTE AND RETURN
	APPROVAL		NOTE AND SEND ON
	CLEARANCE		PER OUR CONVERSATION
	COMMENT		PER YOUR REQUEST
	FOR ACTION		PREPARE REPLY
	INFORMATION		RECOMMENDATION
	INITIAL		SIGNATURE
	NOTE AND FILE		URGENT

REMARKS:

Some of your staff may be interested in the attached memo. If you think it appropriate perhaps you would circulate it to them.

FROM:	ROOM NO.:	EXTENSION:
D.B. Minch	I-10-158	60634

THE WORLD BANK INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

Date: February 24. 1986

Memo to: The Chairperson, World Bank Staff Association

From: D.B. Minch and Others

Subject: US Tax Status of G-4 Visa Holders

This memo arises from your circular dated January 29, 1986 indicating that the Staff Association is engaging in representations to the US Treasury aimed at altering the current tax status of G-4 visa holders. We are not aware of any consultation with G-4 visa holders on this issue. Presumably, you and your colleagues are basing your actions on a determination that a majority would gain financially from a change to resident tax status. Certainly we would concede that staff members whose asset base is in this country and those with substantial non-exempt US income could benefit.

We wonder whether in drafting your representations you are adequately considering their effect on an increasing number of your members who may suffer injury if your actions were to result in a mandatory change of tax status, particularly without adequate notice. The staff members most likely to be in this category are the increasing numbers of G-4 visa holders now being hired on fixed term appointments and those on regular appointments who have decided to rent rather than buy homes in the US. However, any staff member whose asset base remains principally in his home country may suffer injury.

For example, a French staff member who during his absence here rents out his apartment in Paris would have to report the resulting income to the IRS and, if sold, the capital gain would have to be reported. Only as long as a staff member remains non-resident for tax purposes are offshore income and capital transactions not reportable to the IRS.

The objective of this memo is three-fold. Firstly to alert colleagues to think out the implications for them and their families of what appears to be going on. Secondly, to alert Personnel to the possible effect on recruitment. Lastly and principally, to suggest that you carefully consider ways in which the advantages to those staff members who wish to acquire resident tax status can be gained without injury to those who may prefer to remain as they are - non-resident aliens.

cc: Mr. Martin Paijmans
Mr. John Stewart

6956I

POLICY AND RESEARCH DIVISION

N Birdsall

J Akin
H Barnum
R Bulatao
D Chernichovsky
D Gwatkin
K Hall
A Hill
W McGreevey
V Paqueo OR 03/12
K Zachariah

L Chester
S Patel
D Prevoo
M Shizari
L Truong (Vash)
M Vu

A Menciano
H Sailo
C Shaw
D Ellis
L Jose

THE WORLD BANK AND INTERNATIONAL FINANCE CORPORATION

Manual Transmittal Memorandum

Distribution: Administrative Manual Holders

March 4, 1986

Administrative Manual Statement Adm 2.25
World Bank Diplomatic Pouch Service

Please note: This Transmittal Memorandum and the attached Annex A to Statement Adm 2.25 replace those dated February 26, 1986, which were printed incorrectly and should be discarded.

1. The Administrative Services Department has completed efforts to improve mail communications between Headquarters and field offices. Effective immediately, the World Bank Diplomatic Pouch Service is available to all 45 Bank/IFC field offices.

2. Since this service is being provided through a special pricing agreement with a commercial express courier service, normally, ad hoc requests for use of other courier services to field offices will not be accepted by the Outgoing Mail Unit.

3. Transmittal time averages three to four days from pickup to delivery. Door-to-door service is provided to all field offices except Antananarivo, Madagascar and Khartoum, Sudan. These offices are contacted by phone to arrange for airport pickup.

4. Material to be sent by pouch must be brought to the Outgoing Mail Unit, Room F-145, by 11:30 a.m. on the day of transmittal. Pouch mail brought to the Unit later than 11:30 a.m. is held for the next available pouch.

5. Annex A, attached, of Administrative Manual Statement Adm 2.25, "World Bank Diplomatic Pouch Service," provides the latest pouch schedule.

6. Please route this Transmittal Memorandum desk-to-desk within your unit to let staff know of the expanded schedule. File Annex A with Statement Adm 2.25 in your new Manual, delete the August 1985 Annex A, and make a "pen and ink" change in the Manual Table of Contents.

Attachment

Released by Records Management Division, Room N-1004, Ext. 61177

February 1986
Statement Adm 2.25
Annex A
Page 1 of 1

Administrative Manual

WORLD BANK DIPLOMATIC POUCH SCHEDULE

City/Country	*Departure Day(s)*
ABIDJAN, Ivory Coast	Tuesday, Thursday
ACCRA, Ghana	Tuesday
ADDIS ABABA, Ethiopia	Monday
ANTANANARIVO, Madagascar	Friday
BAMAKO, Mali	Monday
BANGKOK, Thailand	Friday
BEIJING, China	Monday, Thursday
BOGOTA, Colombia	Friday
BUJUMBURA, Burundi	Friday
CAIRO, Egypt	Friday
COLOMBO, Sri Lanka	Tuesday
CONAKRY, Guinea	Thursday
COTONOU, Benin	Friday
DAKAR, Senegal	Thursday
DAR ES SALAAM, Tanzania	Wednesday
DHAKA, Bangladesh	Tuesday, Friday
GENEVA, Switzerland	Monday
HARARE, Zimbabwe	Thursday
ISLAMABAD, Pakistan	Thursday
JAKARTA, Indonesia	Tuesday, Friday
KAMPALA, Uganda	Thursday
KATHMANDU, Nepal	Tuesday
KHARTOUM, Sudan	Friday
KIGALI, Rwanda	Wednesday
KINSHASA, Zaire	Monday
LAGOS, Nigeria	Thursday
LA PAZ, Bolivia	Monday
LILONGWE, Malawi	Wednesday
LIMA, Peru	Tuesday
LOME, Togo	Friday
LONDON, England	Tuesday
LUSAKA, Zambia	Monday, Thursday
MANILA, Philippines	Wednesday
MOGADISHU, Somalia	Tuesday
MONROVIA, Liberia	Thursday
NAIROBI, Kenya	Tuesday, Friday
NEW DELHI, India	Tuesday, Thursday
NIAMEY, Niger	Tuesday
NOUAKCHOTT, Mauritania	Wednesday
OUAGADOUGOU, Burkina	Friday
PARIS, France	Monday, Wednesday, Thursday, Friday
RECIFE, Brazil	Wednesday
RIYADH, Saudi Arabia	Friday
TOKYO, Japan	Wednesday (Bank Office), Thursday (IFC)
YAOUNDE, Cameroon	Friday

Mail to be sent by pouch must be received in the Outgoing Mail Room by 11:30 a.m. on the day of transmittal.

3/4

POLICY AND RESEARCH DIVISION

~~N Birdsall~~

~~J Akin~~
H Barnum
R Bulatao
D Chernichovsky
D Gwatkin
~~K Hall~~
~~A Hill~~
W McGreevey
~~V Paqueo~~
K Zachariah

L Chester
~~S Patel~~
D Prevoo
~~M Shirazi~~
L Truong
~~M Vu~~

~~Hai~~
Noni
Judy
Nelly

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE February 27, 1986

TO OPS Directors

FROM Brenda C. Enuton (OPSVP)

EXTENSION 72283

SUBJECT Transmittal of Cables or Telexes

Would you please inform your staff that whenever a cable or telex is transmitted in Mr. Husain's name, it should first be sent to him for authorization. This procedure is similar to handling of letters prepared in Mr. Husain's name, which are first sent to him for his signature.

THE WORLD BANK / INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

cc: OPS FS ARM AB BHL DH EHS NB IZH SMD

DH

DATE 19 February 1986

TO Mr. T. T. Thahane, Vice-President and Secretary

FROM R. H. Dean 2/19/86

EXTENSION 75065

SUBJECT **AUSTRALIA: Communications with the Bank**

2/28

1. I have been asked by my Australian authorities to request that communications with the Australian Development Assistance Bureau (ADAB) follow the normal procedure and be sent through this office.

2. ADAB have advised that telexes on operational matters addressed personally to the Director-General of ADAB by Bank staff have resulted in unnecessary complications in Canberra, and the Bureau would prefer communications to be by way of this office.

3. I would be grateful if you would bring this memorandum to the attention of staff dealing with Australia.

cc: Mr. Ohuchi, VPCOF
Mr. Karaosmanoglu, AENVP
Mr. Hopper, ASNVP

RHD/al

THE WORLD BANK INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE **February 27, 1986**

TO **Mr. Attila Sonmez, AEA**

FROM **James L. Theodores, Field Coordinator, VPA**

EXTENSION **74911**

SUBJECT **PHILIPPINES - Prior Clearance Requirement for Operational Travel**

FS
ARH
AB
BHL
DH
[redacted]
NB ✓
12H
[redacted]

1. The following telexed advisory was received from the UNDP Overseas Security Unit in New York:

> "Designated Official Philippines advises Phase Two discontinued with effect 26 February and reverted to Phase One. Travel ban also lifted but travel of missions subject to prior clearance Designated Official."

2. Accordingly, the Travel Office will require written confirmation of prior clearance before releasing operational travel tickets to the Philippines.

3. In the present circumstances, intending operational travelers must consult with the Programs Division Chief before arranging travel plans to first ensure that counterpart agencies are functioning and prepared to receive proposed missions. On concurrance of the Programs Division Chief, the requisite security-related prior clearance must be obtained from the Designated Official in Manila (UNDP Resident Representative).

4. Intending operational travelers need only to submit a copy of the return telex confirming prior clearance to the travel counselor for release of tickets.

cc: Messrs. Karaosmanoglu, AEN
Clarke, Acting VP, PA
Calderisi, AEN
Kaji, AEA
Kirmani, AEP
Stewart, CEX
Chadwick, VPA
Lloyd, ADM
Richardson, OPS
Michaels, COM
Raczynski, PMD
Reed, CEX
Cole, IMF
Ms. Duncan, VPA

File

22 de abril de 1986

Dra. Graciela Baca de Valdéz
Directora
Instituto Nacional de Estadística
1056 Avda. 28 de Julio
Lima, PERU

Estimada Dra. Baca de Valdéz:

Con la presente le adjunto copia de un análisis de datos demográficos del Perú preparado por el Señor Kenneth Hill para el Banco Mundial con la colaboración de su Instituto.

El Banco acostumbra publicar ciertos estudios llamados "Notas Tecnicas" para distribuir internamente, y en este caso pensamos que organismos peruanos con interés en estadísticas de población también se beneficiarían de recibir copias.

De acuerdo con la conversación telefónica con el Dr. Victor Lozano de la semana pasada, me permito pedir su revisión previa del estudio antes de proceder a imprimirlo y distribuirlo.

Agradeciendo su cooperación, la saluda muy atentamente,

Emmerich M. Schebeck
Jefe, Division III
Departamento de Población, Salud y Nutrición

Cleared with and cc: RSkolnik, PHND3
Mr. White (LC1PA), Mr. Zachariah (PHNPR)

MValdivia:mv
File: Peru

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

File

March 18, 1986

TO: Mr. Zachariah, PHNPR

FROM: John C. O'Connor, JOC Chief, EPDCA

SUBJECT: Deadline for Completing Population Projections

1. I refer to Mr. Aiken's memorandum of 13 March and Mr. Ward's subsequent telephone conversations with Mr. McGreevey and you on March 18.

2. I am pleased to hear that you think you will be able to meet our agreed timetable on the submission of the population data for the World Development Report/Indicators (WDR/I). We attach the highest importance to completing the WDR/I data requirements on schedule. As explained, the WDR/I timetable is not very flexible but we could cope with up to 4-days' slippage if this would enable you to complete all your commitments.

3. In addition, I am happy to repeat my offer to transfer Bruce Fuller to your office for a week to assist in getting the population data out as soon as possible.

cc: Messrs. Baneth (o/r), Chopra, Chander, Ward, EPD

MWard:llt

THE WORLD BANK / INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

file

DATE : March 13, 1986

TO : John C. O'Connor, Chief, EPD

FROM : John Akin, Acting Chief, PHNPR JSA

EXTENSION : 61581

SUBJECT : Deadline for completing country specific population projections

The deadline for completing country specific population projections, needed for preparing the 1986 WDI table, is 31 March. Projections for Asian and Pacific regions will be completed by 11 April instead of 31 March. Projections for all other regions will be completed according to the original schedule (by 31 March). Slippage in this timetable occurs because one of the research assistants engaged in this work has to be reassigned to another top priority task in the Department.

cc: K.C. Zachariah
My Thi Vu
Sulekha Patel
Mahshid Shizari

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

Copy to My Vu Sulekha Mahshid KC2 File

TO: Mr. K.C. Zachariah, PHNPR DATE: March 10, 1986

FROM: Mr. John C. O'Connor, Division Chief, EPDCA

EXT. 33805

SUBJECT: April Deadline for Projected WDI Demographic Data

1. We have recently met with the 1986 WDR publications group. They emphasize that EPDCA must stay on schedule to ensure that the WDR is published on time.

2. The WDI production schedule which we earlier circulated to you and your staff indicates that all demographic and social figures must be in our data set and frozen by April 7. Therefore, I would appreciate that on or before April 1 your office (a) resolve any outstanding disputes with country economists, and (b) complete the calculation of projected demographic data.

3. Mahshid Shizari recently specified five remaining tasks for which EPDCA assistance is requested (memo of February 25). I suggest that Ms. Gutierrez-Ferguson and Mr. Fuller on my staff meet with Ms. Shizari to decide how to execute four of these tasks (numbered 3, 4, 8, and 10 on the February 24 memo). We have completed work on the fifth task relating to the entry of data on labor structure (No.6).

4. We have appreciated the cooperation of you and your staff in this cycle in what seems to be an improved process.

cc: Messrs. Blazic-Metzner, Ahmad, Ward, Fuller, Gutierrez-Ferguson, Cieslikowski.
Mss. Shizari, My Vu. PHNPR

BFuller:jmca

INSTITUTE OF POPULATION PROBLEMS
MINISTRY OF HEALTH AND WELFARE

2-2, 1-CHOME, KASUMIGASEKI, CHIYODA-KU
TOKYO, JAPAN

28 January 1986

Dr. K.C. Zachariah
Senior Demographer
Population and Human Resources
Division
Development Economics Department
World Bank
1818 H Street, N.W. Washington,
D.C. 20433, U.S.A.

Dear Zachariah,

After having received a copy of Bulatao's working paper from you the other day, I have noted in the paper that you also prepared two working papers on the fertility decline one for India and the other for Kerala (Staff Working Papers #699 and 700). I would greatly appreciate receiving a copy each of these papers of yours, together with Tan, Jee-Peng and Michael Haines, Schooling and Demand for Children, Staff Working Paper #697 and Merrick, Thomas W, Recent Fertility Declines in Brazil, Colombia, and Mexico, Staff Working Paper #692.

I am sorry for bothering you continuously, but since it is rather difficult to get World Bank Staff Working Paper here in Japan and our library does not have copies, I am going to make these requests.

With very best wishes,

Sincerely yours,

Shigemi Kono
Director, Division of Population
Policy Studies

Sent
3/7/86

UNITED NATIONS NATIONS UNIES

POSTAL ADDRESS—ADRESSE POSTALE: UNITED NATIONS, N.Y. 10017
CABLE ADDRESS—ADRESSE TELEGRAPHIQUE: UNATIONS NEWYORK

REFERENCE:

Please send this to Horiuchi

Dear Colleague:

I would greatly appreciate receiving a copy of your paper entitled:

Determinants of fertility decline in India: an analysis

published in World Bank Staff working paper 699.

Thank you for your courtesy,
Yours sincerely,

Shiro Horiuchi

Shiro Horiuchi, Ph.D.
Population Affairs Officer
Estimates and Projections Section
Population Division

sent 3/7/86

N-4148

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

(1) Copies to: Vu, Shizari, Patel

TO: Mr. Zachariah, PHNPR

January 10, 1986

FROM: John O'Connor, Chief, EPDCA JOC (2) file.

SUBJECT: Time Table for Population Data for 1986 World Development Indicators (WDI) and Social Indicators Data Sheet (SIDS)

1. Following my conversation with you this morning, we agree to provide you with the following assistance, and you agree to provide the data according to the time table presented in Sultan Ahmad's December 23 memorandum:

(a) Clearance

We will receive historical data from you on January 16 and provide you with a "post office" function of transmitting these data to the regions for clearance by January 31 and collating cleared data. We understand that your office will handle all questions of substance regarding these data.

(b) Entering Historical Data in Projections Models

We will provide assistance in updating your files with historical age distribution data, preferably by transfer from the UN tape, by January 31. We will also assist you in entry of historical data into your computerized systems so that you may run your models.

(c) Collating Projections Output into WDI Tables

We will provide research assistance to prepare these tables. You agree to arrange the work in a manner so that these tables can be prepared in groups of countries and in time so we may prepare the social indicators "comparative tables," send them out for clearance in batches and complete the process by March 31.

(d) Computing Group Averages

As in the past, our staff will compute all group averages.

2. It is understood that you will contact me if you think our assistance in items (b) and (c) would require much more than the 150 hours of a research assistant's time, from January 17 to March 31, suggested in your memorandum of January 3.

3. Please get in touch with me if you disagree on any of these points.

cc: Messrs. Chopra, Chander, Ward, Ahmad

SAhmad:sj

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

File

DATE January 6, 1986

TO Messrs. Fossberg (TRP); Verspoor (EDT); Zachariah (PHN); Ms. Patel (PHN); Ms. Hewitt (WUD)

FROM Dennis Casley, Chief, AGRME

EXTENSION 60077

SUBJECT Improving the Efficiency of Monitoring and Evaluation of Projects

1. You will be pleased to hear that the above paper that we prepared in December has been well received, with Mr. Stern, in particular, stating that he thought it excellent. He is placing it on the agenda for a meeting of the OVPs with particular reference to our discussion of the role of a central unit vis-a-vis regionalization as proposed by OED. I will contact you further when we know the result of the discussion by the OVPs.

cc: Mr. Pickering (AGR)

DCasley:jf