

AGENCY FOR INTERNATIONAL DEVELOPMENT WASHINGTON, D. C. 20523 BIBLIOGRAPHIC INPUT SHEET		FOR AID USE ONLY <i>Batch 72</i>
1. SUBJECT CLASSI- FICATION	A. PRIMARY Communications	CC00-0000-G726
	B. SECONDARY Applications--Nepal	
2. TITLE AND SUBTITLE Radio listening patterns in Nepal		
3. AUTHOR(S) (101) New Educational Reform Associates, Kathmandu, Nepal		
4. DOCUMENT DATE 1974	5. NUMBER OF PAGES 141p.	6. ARC NUMBER ARC
7. REFERENCE ORGANIZATION NAME AND ADDRESS NERA		
8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)		
9. ABSTRACT		
10. CONTROL NUMBER PN-AAC-670		11. PRICE OF DOCUMENT
12. DESCRIPTORS Nepal Development Surveys		13. PROJECT NUMBER
Villages Radio broadcasting		14. CONTRACT NUMBER USAID/N-367-378 GTS
		15. TYPE OF DOCUMENT

RADIO LISTENING PATTERNS IN NEPAL, 1974

A Study of the Radio Listening Patterns Among
Both Radio Owners and Non-owners in Various
Districts of Nepal

Prepared By:

New Educational Reform Associates
Gyaneshwar, Kathmandu

For Submission To:

Human Resources Development Division
United States Agency for International Development
Rabi Bhawan, Kathmandu

Under:

USAID/N Contract Number AID-367-378

October 16. 1974

ACKNOWLEDGEMENTS

The New ERA research staff wishes to express its gratitude to the many individuals who assisted and encouraged us in this study. We would especially like to recognize those to whom we are most indebted.

We would like to express our appreciation, first, to Mr. Ram Raj Poudyal, Director General of Radio Nepal, and to Mr. Krishna Bahadur Khattri, Deputy Director General of Radio Nepal, for their specific suggestions and impartial encouragement throughout the study.

Dr. Burton C. Newbry, Chief of the Human Resources Development Division of the United States Agency for International Development, Kathmandu, gave us close and valuable assistance in questionnaire design, survey methodology, and other aspects of the study.

Mr. Hem Hamal, Chief of Information for the Family Planning and Maternal and Child Health Project, and who conducted Nepal's first radio listener survey several years ago, reviewed our questionnaire and made valuable suggestions for its revision as well as for the selection of the sampling areas. Mr. Kirin Mani Dikshit, Chief of Agricultural Information, reviewed part of the questionnaire and made numerous helpful suggestions. Mr. Chandra Kumar Bhattarai, also of Agriculture Information, provided much useful information to us. Mr. Dhruva Kumar Deoja, Chief of Educational Broadcasting, provided us with information on his programs.

Dr. Arthur Coladarci, Dean of the School of Education, Stanford University, reviewed our questionnaire in some detail and suggested several useful alterations for which we remain grateful. Dr. Leslie Sargent of UNESCO took time from a crowded schedule in Kathmandu to review, also in detail, a preliminary draft of the questionnaire.

We also thank Mr. Paul Wishinski and Mr. Jeff Malick, Regional Officers of the U.S. Peace Corps, for sharing their expertise and knowledge of Nepal in a discussion of possible sampling areas.

Mr. Shankar Risal of the Human Resources Development Division, USAID, provided us with invaluable assistance during the preparation of the questionnaire and the field phase of the project. He and Mr. Laxmi Bahadur Nakarmi narrowly escaped serious injury during field work in eastern Nepal when the brakes and the engine of the jeep in which they were travelling up a steep cliff-side road failed simultaneously.

Literally scores of individuals outside of Kathmandu assisted us in this project. We thank each Panchayat Development Officer who took the time to send us data on the number of radios registered in his district. Panchayat Development Officers, Chief District Officers, Pradhan Panchas, and others assisted us in innumerable ways during our visits throughout Nepal.

Finally, and most importantly, our thanks and gratitude go to the hundreds of villagers who were interviewed in this survey. Their almost uniform efforts to be genuinely helpful and their tolerance of our sometimes strange questions and intrusions are remembered by us. In the report which follows these villagers are referred to impersonally as "respondents". We know them as individuals, however, and hope that this report will in some way eventually benefit them directly.

PREFACE

This study of radio listening in Nepal was conducted by New Educational Reform Associates (New ERA) as part of a broader project undertaken for the United States Agency for International Development, Kathmandu, Nepal, (USAID/N). This final report is, therefore, submitted to the Human Resources Development Division of USAID/N in partial fulfillment of the requirements of Contract Number AID-367-378.

We believe, however, that the information contained in this report will be of interest and benefit to many, especially to those individuals, private agencies, and departments of His Majesty's Government which are concerned with the potentials of mass communication for village development in Nepal. This report has, therefore, been written with this larger audience in mind.

TABLE OF CONTENTS

	<u>Page</u>
I INTRODUCTION	1
A. The Context of the Study	1
B. Objectives of the Study	2
II. STUDY DESIGN AND IMPLEMENTATION	4
A. Instrument Development	4
B. Data Collection Procedures	5
C. Sample Selection	7
D. Sample Description	12
E. Data Analysis and Formatting	16
F. Limitations and Assumptions	18
G. A Footnote on Field Research During the Monsoon	20
III BASIC RESULTS OF THE STUDY	23
A. The Number of Radios in Nepal	23
B. Who Owns a Radio, Who Does Not	26
C. Radio Cost and Value	30
D. Control of the Radio	34
E. Meter Bands of Radio Nepal	36
F. Reception Quality	40
G. Prime Listening Time	42
H. Listening to and Understanding Radio Nepal	51
I. Program Preferences	53
1. Radio Nepal Programs	53
2. Programs of Foreign Stations	57
J. Radio Coverage Beyond Owners	59
1. From the Owners' Perspective	60
2. From the Non-Owners' Perspective	63
IV. INFORMATION ON EDUCATIONAL & SERVICE PROGRAMS	68
A. Agriculture Program	69
1. Descriptive Information	69
2. Basic Survey Data	70
3. Use of Broadcast Information	76
B. Family Planning Program	81
1. Descriptive Information	81
2. Survey Data	82

	<u>Page</u>
C. Women's Program	88
1. Descriptive Information	88
2. Survey Data	89
D. Education Program	92
E. Public Health Program	93
F. Youth Program	94
V CONCLUSIONS AND RECOMMENDATIONS	95

APPENDICES

A. A Brief History of Radio Nepal Broadcasting	102
B. Radio Nepal Broadcasting Schedule	103
C. A Brief Survey of Radio Education Methods in Developing Countries	108
D. English Translations of the Interview Schedules	120
1. Comments on the Translations	120
2. Interview Schedule for Radio Owners	122
3. Interview Schedule for Non-Owners	138
E. Credits	140

TABLES OF TABLES

	<u>Page</u>
1. Number of Interviews Conducted in Each Locality by District	12
2. Hill/Terai Sample Distribution in Percentages	14
3. Town/Village Sample Distribution in Percentages	14
4-5. Mother Tongue Distribution in Percentages	15
6. Data on Radio Registration in 55 Districts Responding to Questionnaire	24
7. Upper Bound, Rule of Thumb Estimate, and Lower Bound of Basic Radio Ownership Statistics for Nepal	26
8. Stated Level of Completed Formal Education among Radio Owners and Non-Owners	28
9. Occupation of Radio Owners and Non-Owners	29
10. Percentage of Owners Indicating Radio Purchase Cost in Given Ranges	31
11. Reasons for Not purchasing a Radio Expressed by Non-Owners	31
12. Maximum Price Non-Owners Could Afford to Pay for a Radio	32
13. Individual Family Members Who Usually Tune the Radio	36
14. Number of Individuals in a Household Who Usually Tune the Radio	36
15. Percentage of Respondents Who Listen to Radio Nepal on the 60 Meter (Short Wave) Band by Geographical Area	38
16. Percentage of Respondents Who Listen to Radio Nepal on the 90 Meter (Short Wave) Band by Geographical Area	38
17. Percentage of Respondents Who Listen to Radio Nepal on the 379 Meter (Medium Wave) Band by Geographical Area	39
18. Percentage of Respondents in a Geographical Area Who Indicated Reception of Radio Nepal to be of a Specified Quality	40
19. Percentage of Respondents in a Geographical Area Who Indicated Reception Problems at a Specified Time of Day	41
20. Percentage of Radio Owners in Each Geographical Area Who:	
A. Report Listening to the Radio Between Specified Hours	44
B. Report Specified Hours as Best to Listen	45

	<u>Page</u>
21. Upper Bound on Average Number of Hours of Radio Listening in Each of the Three Time Blocks: Morning, Afternoon and Evening	48
22. Regularity with which Respondents Listen to the Radio During the Three Time Blocks: Morning, Afternoon, and Evening	48
23. Frequency of Listening to Radio Nepal by Geographical Area	51
24. Percentage of Radio Owners in Each Geographical Area Who Do Not Understand the Language of Radio Nepal Programs	52
25. Percentage of Radio Owners Indicating Specified Radio Programs as Their "Favorite"	54
26. Percentage of Radio Owners Indicating Specified Radio Programs As "Favorite" And As "Listened to Most Attentively"	55
27. Percentage of Radio Owners Indicating Specified Musical Preferences	56
28. Percentage of Radio Owners Who Listen to Specified Program Types on Foreign Stations	58
29. Percentage of Radio Owners Who Listen to Specified Program Types on Specified Foreign Stations	59
30. Average Number of Listeners Per Radio as Reported by Owners in Each Geographical Area	60
31. Percentage of Radio Owners Reporting Non-Owners Coming to Listen to Specified Programs	61
32. Percentage of Radio Owners Who Report Communicating to Others Specified Types of Information Heard Over the Radio	62
33. Percentage of Non-Owners Who Report Listening to the Radio with a Specified Regularity	64
34. Percentage of Non-Owners Who Report Listening to the Radio in the Morning, Afternoon, and Evening	64
35. Percentage of Non-Owners Who Listen to the Radio in Specified Locations	65
36. Percentage of Non-Owners Who Report Searching out a Radio to Listen to Specified Programs	67
37. Percentage of Radio Owners Who Listen to the Agriculture Program With Specified Regularity by Geographical Area	71
38. Percentage of Radio Owners Who "Sometimes" or "Never" Listen to the Agriculture Program Who Give Specified Reasons for not Listening More Often (N=128)	73
39. Percentage of Radio Owners Who Indicate Specified Agriculture Program Formats as Most Useful (N=297)	74

	<u>Page</u>
40. Percentage of Radio Owners Using Broadcast Agricultural Practices Who Report Using Specified Practices on Their Farms	77
41. Percentage of Radio Owners and Non-Owners Who Obtain Agricultural Information From Specified Sources	79
42. Percentage of Respondents Not Using Broadcast Agricultural Information Who Cite Specified Reasons For Not Doing So	80
43. Percentage of Respondents Who Listen to the Family Planning Program With A Specified Regularity	83
44. Percentage of Radio Owners Who "Sometimes" or "Never" Listen to the Family Planning Program Who Give Specified Reasons for Not Listening More Often	83
45. Percentage of Radio Owners Who Indicated They First Received Family Planning Information From Specified Sources	85
46. Percentage of Female Respondents Indicating Preference For Specified Programs	90
47. Percentage of Female Respondents Who Listen to The Women's Program With Specified Regularity	90
48. Reasons for Not Listening to Women's Program More Often Reported by Female Respondents Who Listen Only "Sometimes" or "Never"	91
49. Percentage of Women Listeners Preferring Specified Subjects Broadcast on Women's Program	91

TABLES IN APPENDIX

B1. Distribution of Air Time Among Program Types On Radio Nepal	103
B2. Programs Which are Sponsored or Originated By Agencies Other Than Radio Nepal	104
B3. Radio Nepal's Broadcast Schedule First Transmission (Morning)	105
B4. Radio Nepal's Broadcast Schedule Second Transmission (Afternoon)	106
B5. Radio Nepal's Broadcast Schedule Third Transmission (Evening)	107

TABLE OF FIGURES

	<u>Page</u>
1. Districts in Which Field Interviews Were Conducted	10
2. Percentage of Non-Owners Who Could Not Afford a Radio Above a Given Price	33
3. Percentage of Radio Owners Who Listen to the Radio During Specified Hours of the Day	46
4. Percentage of Radio Owners in Each Geographical Area Who Report Listening to the Radio Between Specified Hours	47
5. Percentage of Radio Owners in Each Geographical Area Who Report Specified Hours as "Best" to Listen	50
6. Relative Favorites Among the Six Most Popular Radio Nepal Programs	66

I. INTRODUCTION

A. THE CONTEXT OF THE STUDY

Radio is not the only communications link to the villages of Nepal. Newspapers and magazines are published in Kathmandu and other centers and are circulated throughout the Kingdom. Their numbers, however, are exceedingly small. The Gorkhapatra, the largest circulation Nepali daily, distributes only 4,000 copies beyond the Kathmandu Valley; the Pising Nepal, the largest circulation English daily distributes only 550 copies beyond the Kathmandu Valley. A wireless system links every district center to Kathmandu and carries both official and personal messages. The Department of Information maintains a direct mailing system to each Pradhan Pancha (elected village mayor) in the country.

News and information is also carried by individuals. Villagers often travel outside their immediate communities and return with various kinds and qualities of news. Sometimes they are away on lengthy trips for economic reasons: to sell their produce in more favorable markets and to obtain needed supplies. During such trips they may pass through regions populated by different ethnolinguistic groups and having achieved different levels of economic and social development. When they return to their villages, they return with information of various kinds. Villagers receive new information not only from returning individuals but also from the occasional travellers that pass through their own village. Thus, all villages, even the most remote, are linked to the larger world through one means of communication or another.*

* Additional information on communication linkages to the villages of Nepal may be found in New ERA's companion report Non-Formal Education in Nepal.

Nevertheless, radio is the most direct and quickest means of communication to the thousands of villages and millions of inhabitants of Nepal. It is the only true means of mass communication in the Kingdom. There is no other.

As the only mass communicator of Nepal, radio is and can be one of the most effective devices for assisting in the achievement of national integration and socio-economic development. It is unfortunate, therefore, that little is really known about the present impact of radio throughout the country.

How many radios are there in Nepal? Who are the owners of these radios? Who controls the radio in a household? What stations do people listen to? What programs on Radio Nepal do people listen to? Why? What times of day are most convenient for people to listen to the radio? Is information which is learned from the radio then communicated to others? Do people who do not own radios also listen? To what? Where? How much would they be willing to pay to obtain a radio?

The answers to these and other questions are important if the impact of radio as the only mass communicator in Nepal is to be understood fully. In addition, it is only from such a base of understanding that future planning for increasing and strengthening the impact of radio can logically proceed.

B. OBJECTIVES OF THE STUDY

The basic objective of this study was to gather, in a preliminary fashion, information which would assist in describing the current place of radio as a means of mass communication in Nepal. It is important to note that this general objective does not call for an "explanation" or "evaluation" of the place of radio, but simply for its "description". As such, the objective was to gather that basic information which would form a foundation of under-

standing from which further research or development might logically proceed.

To achieve this basic objective, a number of more specific sub-objectives were agreed upon:

1. To design a radio survey instrument for use in both rural and urban Nepal;
2. To determine what programs and stations are listened to and with what frequency;
3. To determine if certain educational programs on Radio Nepal are listened to and with what frequency and to determine the effect of these programs on listeners' knowledge, attitudes, and behavior;
4. To determine the proportion of radio owners to non-owners;
5. To gauge the number of individuals who listen to one radio;
6. To estimate when and how frequently non-owners listen to radio and to what they listen;
7. To estimate the placement of the purchase of a radio within a family economy;
8. To relate these factors to a number of regional, ethnic, and linguistic variables;
9. To determine sampling areas in which to apply the instrument and to carry out the research over approximately two months;
10. To conduct a survey of current radio programming in Nepal and of radio education experiences in other developing countries.

The degree of success which was met in reaching each of these sub-objectives is described in later sections and is summarized in the concluding chapter of this report.

II. STUDY DESIGN AND IMPLEMENTATION

The objectives of the study were translated into specific activities, the understanding of which is necessary if the resulting data and limitations are to be understood. This section of the report presents information regarding these activities.

A. INSTRUMENT DEVELOPMENT

The data collection instruments of the project were initially developed over the one and a half month period from March 1, 1974, to April 20, 1974. All members of the project staff who would eventually administer the instruments in the field participated in their initial development. Additionally, numerous specialists and experts were consulted and contributed comments and suggestions that were incorporated into the instrument design.

Once the instruments were finalized for pre-testing, a few days of staff training in their use took place. Interviewers were given required readings on interview techniques, talks were given by experienced field researchers, and several sessions of role-playing with the interview schedules were conducted. Interpretive phrasings were also standardized for the interview schedules. For example, the frequently used response categories "almost always," "sometimes" and "never" were discussed and the staff listed against each of these categories all the possible phrases respondents might use.

From April 28 to May 8 pre-testing of the instruments was conducted in Nuwakot, Makwanpur, Kavrepalanchok, Dhanusha, Bara, and Parsa districts.

The pre-test experience resulted in the dropping altogether of one of the instruments, an observation device. Originally it was intended that this device be a sort of cross-check or cross-reference to some of the data to be gathered through

the interviews. A special form had been developed for this purpose. During specified times of the day, each interviewer was supposed to place himself near an operating radio and to record the number, sex, and age of individuals present, the program being listened to, the audience reaction to the program, if any, etc. This observation device would have provided very useful information except that it was impractical to administer. The presence of a stranger, in this case the field researcher, in a village home or tea shop entirely alters the normal situation. Villagers want to talk to the stranger and thus either ignore the radio or turn it off altogether. As a replacement for this device, a Critical Incident Form was designed for the field researcher to complete whenever he perceived that radio was the main communicator in a situation or whenever radio intervened in some other form of communication or activity.

The pre-test experience also led to the revision of the interview schedules. Each interview question was analyzed on the basis of pre-test responses and alterations were made as necessary, especially in the response categories.

B. DATA COLLECTION PROCEDURES

The study itself was conducted utilizing the four data collection instruments which had been finalized based on the pre-test results. These were:

- An "Interview Schedule for Radio Owners" which took about 25 to 35 minutes to administer to each respondent;
- An "Interview Schedule for Non-Owners" which took about 10 minutes to administer to each respondent;
- A "Questionnaire" which was mailed to the Panchayat Development Officers of all 75 districts.
- A "Critical Incident Form."

Both interview schedules were written and administered in

Nepali.* In those few situations where a respondent did not understand simple Nepali, the interviewer either himself asked the questions in the respondent's own language or employed an interpreter.

The interview schedules were generally administered according to accepted survey research practices. Questions were always asked in the same order and were not "discussed" with the respondent before or during administration. If the respondent did not know how to answer a question or did not understand a question's meaning, the interviewer usually read the question again in exactly the same manner.

Sometimes, however, it was necessary to make minor variations in this very standard technique. Occasionally a respondent could not understand a question because he was not familiar with a certain word. In these cases the question was restated with a minimum of change, often simply the substitution of a synonym or a local or dialect variant of the troublesome word.

Occasionally, too, respondents replied to questions in a vague, non-specific fashion. Sometimes this was because the answer required some recall, sometimes, we think, because non-specificity is a common mode of expression in Nepal in certain social or linguistic situations, and sometimes because the terms of reference were exact for the respondent, but not for our survey research. For example, when asked when he turned the radio on in the morning, not a few respondents replied "After I wake up." At this point, in order for the data to have any meaning outside of a possible statement such as "52% of respondents turn the radio on after waking up," it was necessary to ask follow-up questions to arrive at an hour of the day. Questions

*English versions of the interview schedules as well as the Critical Incident Form can be found in the appendices of this report.

asked in this situation would be: "Do you know what hour you wake up?" "What program is usually playing when you turn the radio on after waking up?" Sometimes it was even necessary to ask, "Where is the sun when you wake up?"

For these sorts of questions where we could anticipate having to ask follow-up queries, the researchers were briefed beforehand on what to ask. In cases where non-specificity seemed to indicate that the respondent really did not know or did not desire to respond, however, we did not push for a contrived answer.

Some degree of standardization was sacrificed by these deviations from strict interview administration technique. Also, more judgemental discretion was vested in the interviewer. It is obvious to us, however, that survey research in Nepal must occasionally sacrifice strict technique in order to achieve useful results.

Four field researchers (also termed interviewers throughout this report) administered the interview schedules and completed the Critical Incident Forms. All were Nepalese. Each possessed at least a Bachelor's degree. All had travelled extensively in Nepal. Three had had previous experience in interview schedule administration and field research in Nepal. They completed the field data gathering in two phases with only a brief return to Kathmandu. The first phase lasted from May 22 to June 23 and the second phase lasted from July 1 to August 6.

In addition to the fieldwork, a simple questionnaire was sent to each district of Nepal to obtain data on the number of radios which were registered in that district.

C. SAMPLE SELECTION

The lack of a complete information base makes the selection of random samples of Nepal's population an almost impossible

task. In addition, the tremendous difficulties of travel in Nepal can quickly foil any attempt to administer instruments on even a pseudo-random basis. Also, the limited availability of time and money placed added constraints on the sampling techniques of this project, as it does on any other.

Therefore, rather than relying on the random selection of a sample which would be statistically representative of the country's population as a whole, it was decided early on that a sample should be constructed which would, within limits, be as representative as possible. The first question to be answered was what factors were to be considered in creating the sample. Basically it was decided to consider three factors: urban/rural, geographic, and ethno-linguistic representation.

First, it was decided that the sample should consist mainly of rural villagers, partly because the overwhelming majority of Nepalese live in villages and partly because it was theorized that the impact of radio might be more evident in areas which are more isolated from other national and regional communications media.

Secondly, it was decided that the sample should include representation from all the major geographic areas of the country. In order to do this, it was initially proposed that the survey be conducted in three north-south "corridors". Eventually, it was decided to include four such "corridors", one in each Development Region of the Kingdom: Far West, West, Center, and East. It was also decided that hill villagers and terai villagers should be represented in the sample in the same proportion as in the national population.

Thirdly, it was decided that the proportion of various ethno-linguistic groups in the sample should closely parallel their proportion in the national population. A major methodological difficulty arose here because the 1971 census

of Nepal's population did not record ethnic data although it did record an individual's mother tongue. In some cases this latter data is synonymous with ethnicity; in other cases it is not. Since it is the only reasonably reliable and official data which exists, it was decided to use the mother tongue statistics from the census as a guide to sampling even though certain shortcomings were immediately apparent. For example, the single group of Nepali mother tongue speakers, over half of the total, could not be broken down further into caste or other sub-groupings.

Based on these three factors, as well as on travel time from Kathmandu, districts were selected for field work in each of the Development Regions. The 1971 census was consulted in regard to the linguistic composition of each district and district collections were made to assure the inclusion of each major group. Practical problems prohibited the selection of certain districts which it otherwise would have been desirable to include. Humla, Mugu, and Tibrikot, for example, among the most remote districts of the Kingdom could not have been reached in less than one month of travel one way during the monsoon. Also, areas to the north and northeast of Pokhara Valley had to be excluded because of the law and order problems which they were then experiencing.

Altogether the survey covered 14 of Nepal's 75 districts. The accompanying map (Figure 1) shows the districts in which interviewing took place. The map suggests the sample "corridors", albeit crooked and with gaps. These variations from straight "corridors" were caused by both travel conditions during the monsoon and by the need for linguistic representativeness within the total sample.

Within each district villages were selected in which to conduct interviews based on the following procedure. Each interviewer was provided with guidelines on how many owner and non-owner interviews he was to conduct, the number of hill interviews and terai interviews, and the number of interviews with individuals of different linguistic groups.

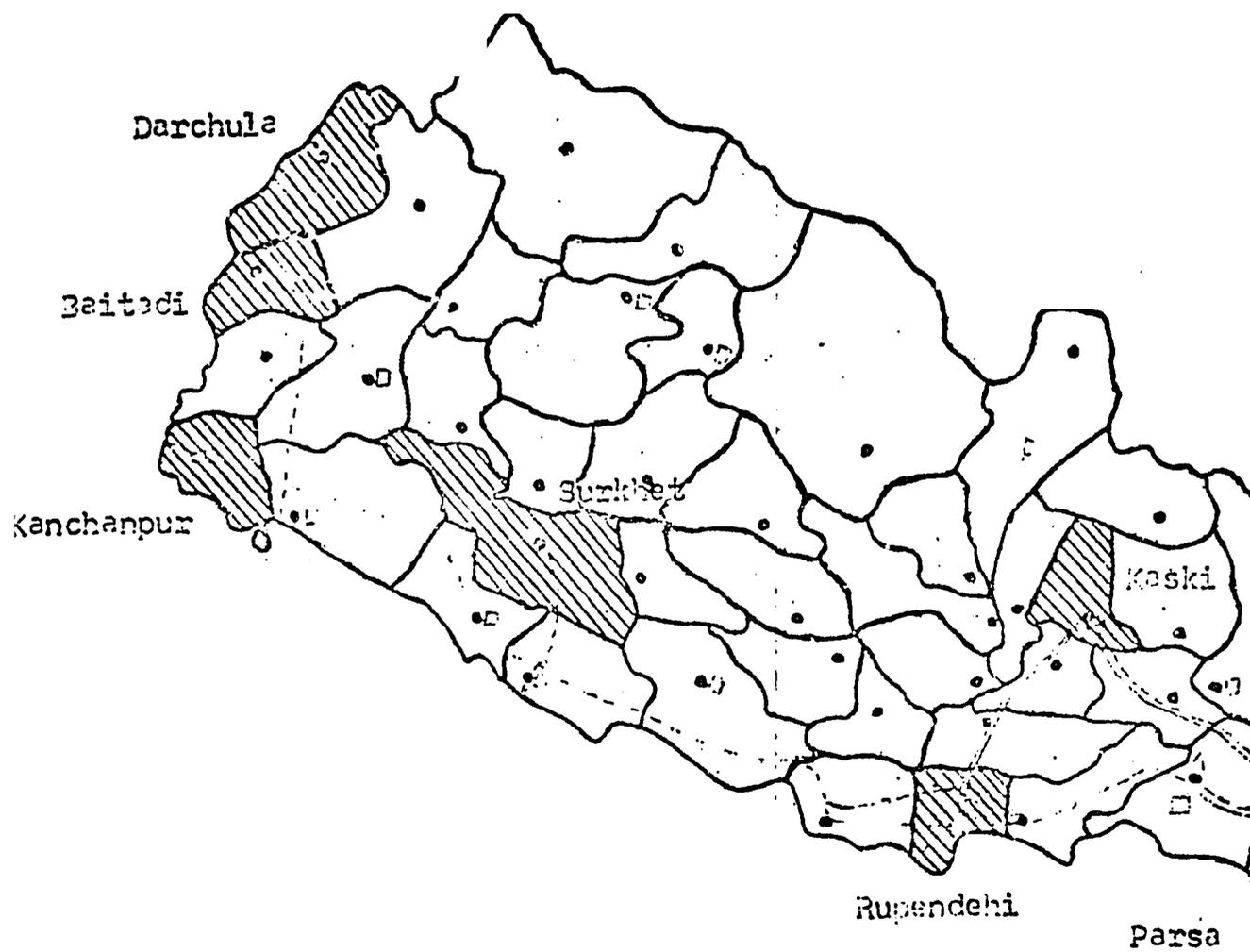
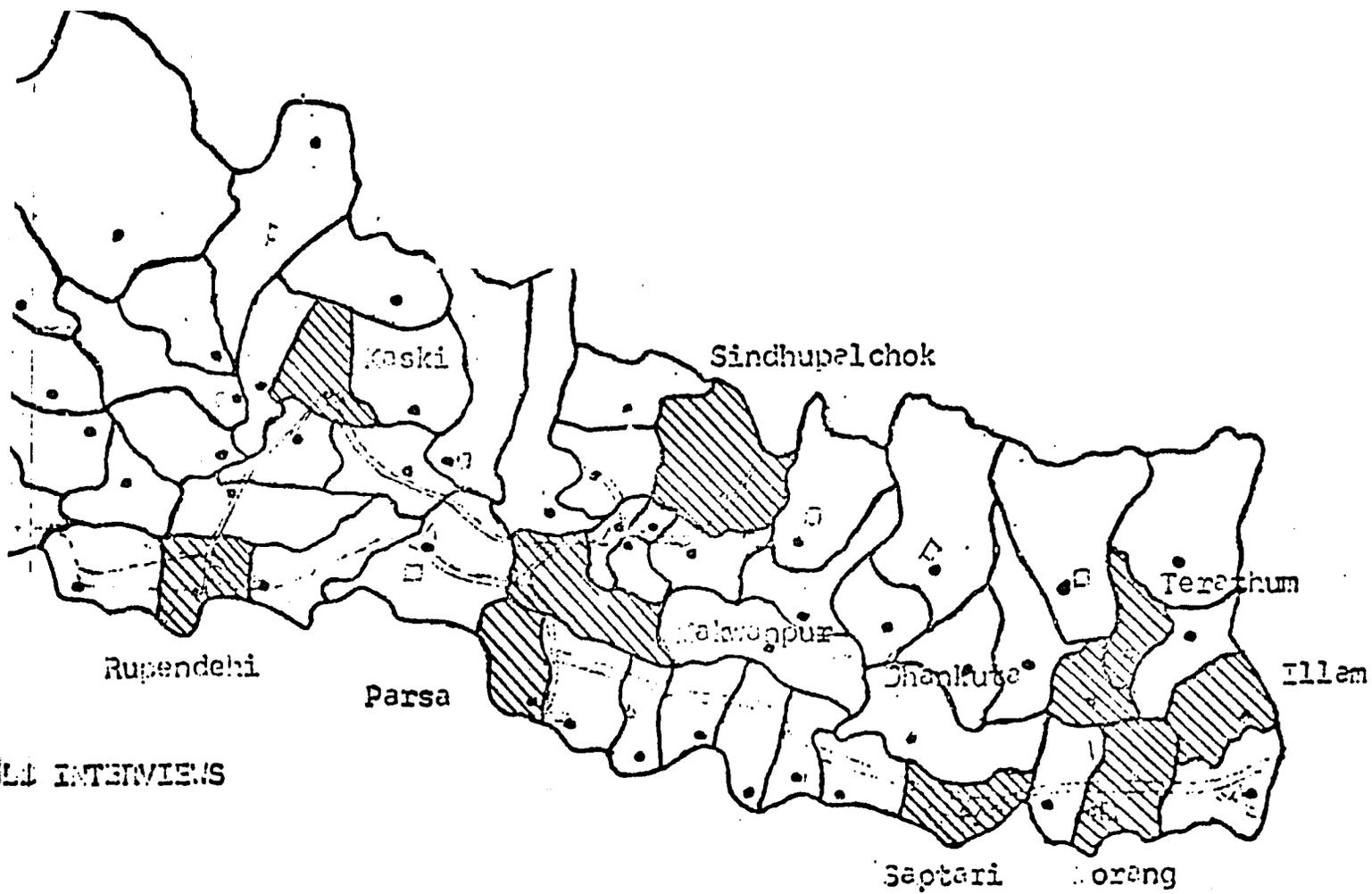


Figure 1: DISTRICTS IN WHICH FIELD INTERVIEWS WERE CONDUCTED



Districts in which the field interviews were conducted



FIELD INTERVIEWS

Since the census does not contain linguistic breakdowns for individual villages, this information had to be obtained at the district level. Each interviewer therefore went to the Chief District Officer and/or the district Panchayat Development Officer, whose offices have knowledge of the villages of their districts. Working with these officers and their staffs, the interviewer arranged an itinerary which would take him to villages where the linguistic groups to be covered lived and which could be travelled in the research time allotted. Also, to the extent possible, the interviewer was to design the itinerary to take him to more isolated areas.

After arriving in a selected village the interviewer usually felt it necessary to visit briefly with the Pradhan Pancha, partly as a matter of courtesy, partly because as elected village chief he usually desires to know the purpose of strangers in his village, and partly in order to procure some basic information on the village from him.

Selection of radio owners to interview in the village began with the Pancha. Interviewers found out if any members of the particular ethnic groups to be covered possessed radios and where they lived within the village. Sometimes every radio owner in a village was interviewed - particularly when a village had only two or three radios. In actuality, who was interviewed often depended finally upon who was at home. Particularly during the monsoon planting season, when much of the field research was done, interviewers often had to wait for hours for families to return from the fields. In one case, an interviewer waited for two days for the one radio owner of a targeted ethnic group. After two days news came that the owner had travelled to another village on business. The interviewer packed his interview schedules and moved on.

Selection of non-owners was less rigid. They were selected from the same villages as the owners and also from other villages that fell along the interviewers planned itinerary

within the district. The "technique" employed was often some variation on "the next person down the trail", within specified linguistic and geographic quotas. The resulting sample of non-owners is as geographically and linguistically representative as that of the radio owners.

D. SAMPLE DESCRIPTION

Altogether 306 interviews were conducted with owners of radios and 153 interviews were conducted with non-owners. These interviews were conducted in a total of 66 localities, 64 villages and 2 towns. The average population of the localities was 2,131. A listing of the number of owner interviews and non-owner interviews conducted in each of the localities is included in Table 1.

Table 1: NUMBER OF INTERVIEWS CONDUCTED IN EACH LOCALITY BY DISTRICT

District/Village	Owner Interviews	Non-Owner Interviews
BAITADI		
Haat	7	3
Bhulagaon	8	4
Thaligada	6	3
Khalanga	8	4
Nagtadi	7	4
Shailekh	5	3
DARCHULA		
Kante	4	2
Garaku (Kante)	2	1
Khalanga	13	6
Garaku (Khalanga)	4	2
Dhap	6	3
Rateura	1	1
Salet	1	-
Sirpur	2	1
Lima	1	-
Bamu	2	1
Uku	2	1
Nisil	7	3
DHANKUTA		
Chuli Ban	7	6
Nigale	8	5

Table 1: (Continued)

ILLAM		
Wafrang	4	3
Barbote	7	4
Solubung	6	2
Illam Nagar	8	4
KANCHANPUR		
Pipraiya	3	2
Bankoti	4	2
Mahendranagar	5	2
Suda	9	4
KASKI		
Argaon	10	5
Bhandardhik	9	5
Bijayapur	6	4
Rithepani	2	-
MAKWANPUR		
Hetauda	8	4
MORANG		
Katahari	7	4
PARSA		
Banwari	10	3
RUPENDEHI		
Parsauni	3	2
Tulsipur	2	-
Mangalpur	4	-
Dipnagar	1	-
Karaiya	2	2
Jyotinagar	1	-
Jalanda	1	1
Sitalnagar	3	1
Gurungtola	3	-
Bhaluhi	3	1
Sispur	-	1
Devidamar	1	-
Kerbani	3	-
Basantpur	1	1
Biratbazar	-	1
Kharani	-	1
SAPTARI		
Jagatpur	6	3
Charauna Padriya	6	3
SINDHUPALCHOK		
Aanpchaur	8	4
Bhimtar	4	2
Ghale	8	4
Jyamire	6	3
Karthale	4	2

Table 1: (Continued)

SURKHET		
Tatapani	7	4
Katkuaphulbari	1	1
Itram	10	3
Bhairabsthan	1	2
Nanlapur	-	2
Ulatriganga	2	-
TERATHUM		
Myaglung	7	5
Thamphula	7	3

As indicated in Table 2, the hill and terai population percentages of the 1971 census were closely approximated in both the sample of owners and the sample of non-owners. *don't read*

Table 2: HILL/TERAI SAMPLE DISTRIBUTION IN PERCENTAGES

	Owner Sample N=306	Non-Owner Sample N=153	National Population 1971 Census
Hill	61.1%	66.7%	62.4%
Terai	38.9%	33.3%	37.6%

As indicated in Table 3, the town (nagar panchayat) and village (gaon panchayat) population percentages of the 1971 census were closely approximated in both the sample of owners and the sample of non-owners.

Table 3: TOWN/VILLAGE SAMPLE DISTRIBUTION IN PERCENTAGES

	Owner Sample N=306	Non-Owner Sample N=153	National Population 1971 Census
Town	5.2%	5.2%	4.0%
Village	94.8%	94.8%	96.0%

Altogether, the respondents represented 26 different caste and ethnic groups. As no definitive data is available on caste and ethnic representation in the total population, however, linguistic data must be used for comparison purposes. Table 4 indicates the proportion of respondents speaking a given mother tongue and the percentage of the national population speaking that tongue.

Table 45 MOTHER TONGUE DISTRIBUTION IN PERCENTAGES

Mother Tongue of Respondents	Owner Sample N=306	Non-Owner Sample N=153	National Population 1971 Census
Nepali	56.3%	51.6%	52.4%
Newari	8.5	6.5	3.9
Gurung	7.2	7.2	1.5
Maithili	5.6	6.5	11.5
Tharu	5.6	7.2	4.3
Bhojpuri	3.6	2.0	6.9
Limbu	2.9	4.6	1.5
Magar	2.0	1.3	2.5
Tamang	2.0	4.0	4.8
Danuwar	1.3	1.3	.1
Rai	1.3	4.6	2.0
Bhote/Sherpa	1.0	-	.7
Other	2.7	2.7	7.9
Total	100.0%	100.0%	100.0%

Both samples were, therefore, fairly representative of the national population, at least as far as these predetermined variables are concerned.

E. DATA ANALYSIS AND FORMATTING

Even before all field work had been completed, initial coding, tabulation, and analysis was underway. Interview instruments which had been completed during the first phase of field work were used to test the predetermined tabulation procedures while the second phase of field work was still in progress. Tabulation and analysis procedures were then revised in time to be used for all the data obtained from both phases.

Each completed instrument was given an identifying code number. The number was then written on each page of the instrument. The instruments were then broken apart and recompiled on a page basis. Thus, all responses to a given question were kept in one place. New ERA staff tabulators then totalled the number of each possible response to each question on specially designed Working Sheets. Simple arithmetic calculations were performed including totalling, averaging, determining percentages, etc. These processes were supervised by one of the field researchers and each step in each process was repeated twice in order to catch any simple tabulating or arithmetic mistakes. The data was then transferred to specially designed Summary Sheets for review by the professional staff of the project. This review resulted in recommendations for additional tabulations, cross tabulations and spot checks which were then carried out. Final Summary Sheets were then prepared for additional analysis and report writing.

During the very early stages of data analysis it became apparent that one part of one of the project's objectives could not be meaningfully met: comparison of item responses among individuals of different linguistic groups. The absolute number of responses obtained from most linguistic groups was so small as to make it nearly impossible to find statistically significant differences among them. Most such data could as easily have been the result of chance as of

actual differences in the populations. Also, given the fact that certain linguistic groups are found only in certain geographic areas, it would have been difficult to determine whether any differences between groups, even if statistically significant, were actually related to the differences in linguistic stock or to differences in geographical location of the respondents.

It was decided, therefore, to drop tabulations and analyses based on linguistic groupings and to concentrate on tabulations and analyses by geographical area. Eight geographical areas were selected for use in such tabulations. Within each Development Region the terai districts were grouped and named a geographical area. The remaining hill and mountain districts of each Region were then grouped and named a geographical area. The eight areas are thus: the eastern hills, the eastern terai, the central hills, the central terai, the western hills, the western terai, the far western hills, and the far western terai. The absolute number of respondents from each geographical area is often sufficient to point out trends and statistically significant differences.

Data in this report is generally displayed in tabular form, although some graphs and charts have been utilized as well. The data is usually presented in terms of percentages rather than absolute numbers as this is more easily interpreted. Unless otherwise indicated, each percentage within a stratification is calculated by the ratio of the number of responses in a particular response category within the stratification to the number of respondents within the stratification. In almost all cases the base number "N" from which percentages have been calculated has been included for each table or column of a table. The only cases where this is not true are in some tables displaying data by geographic area. In those cases (Tables 15, 16 and 17 for example) it is assumed that the following "N" numbers have been used: eastern hills, 54; eastern terai, 19; central hills, 30; central terai, 18; western hills, 28; western terai, 28;

far western hills, 87; far western terai, 42. Data of this type is displayed in an eight-celled matrix each cell of which represents one of the geographical areas and is located within the matrix in the same relative position as the represented area would be on a map of Nepal.

F. LIMITATIONS AND ASSUMPTIONS

The following sections of this report contain data on numerous subjects related to ~~radio use~~ which were gathered from our national samples of 306 radio owners and 153 non-owners. We caution against generalizing from this limited sample to the national population of Nepal without understanding the limitations and assumptions under which the data was gathered.

As mentioned previously, the radio owners and non-owners could not be selected from the total population on a random basis. A cluster/quota system was employed to select individuals for interviewing. Such a system is dependent on a number of assumptions if the resulting data is to be statistically generalizable to the total population with any degree of confidence. First, the selected cluster units and sub-units (in this case, selected districts and villages) must be representative of the universe of cluster units and sub-units. We have no reason to believe that the districts and villages selected for this study are not representative. Secondly, ~~the quotas used in predetermining the proportional representation of different groups in the sample must be~~ based on their actual proportional representation in the total population. It is here that a major assumption had to be made for this project. As there was no factual data on radio ownership patterns within the population as a whole, it was assumed that each group is represented among radio owners in the same proportion as it is represented in the total national population. Although we do not have any objective data to indicate that this is not so, there is a general subjective feeling that, in specific cases at least, it may not be true. For example, although residents of urban

areas are only 4% of the national population, it is probably true that urban areas account for more than 4% of the total radios in the country. Also, for example, although Tharu speakers and Newari speakers are both approximately 4% of the national population, it is probably true that Newari speakers are considerably more than 4% of the radio owners while Tharu speakers are less. Without any data other than the national census figures of 1971, however, there was no option but to use these figures in determining quotas for the sampling process. It should be noted, however, that this assumption does not affect the non-owner sample. One can easily assume that different groups are represented among non-owners in the same proportion that they are represented in the national population because the universe of non-owners is, in fact, 99% of the total population.

Another factor which must be considered is whether the respondents were, to put it bluntly, always telling the truth. If they were honest, then the data presented in this report is representative of the sample and, to a lesser degree, of the nation as a whole. If they were dishonest, however, these same data are less than useful. The subjective feeling of the interviewers who gathered the information from the respondents is that, by and large, the respondents were telling the truth. In answering certain questions, however, the respondents might have been tempted to place themselves in a good light or to provide statements which they felt would please the interviewer. Such a tendency, for example, might explain the unusually high rates of literacy reported in both the owner and non-owner samples. If such a tendency did exist, then other data (such as that regarding the use of agricultural information heard on the radio) might also be somewhat exaggerated in one direction or another. As this study was conceived as a broad and preliminary survey, however, there were no checks built into its design. Literacy could be judged by having the respondent read and write short notes. Use of agricultural information could be judged by a long series of follow-up questions and direct

observation of the respondent's fields. Means could be devised to verify the responses to nearly every question, but that was beyond the scope of this present project. Clearly, we have relied on the stated answers given by the respondents. Because the respondents generally evinced a perceptible conscientiousness in attempting to answer our questions accurately, we feel that it may generally be assumed that they were, in fact, telling the truth. The fact that most respondents took this survey as serious business may also reflect the seriousness with which radio itself is taken throughout the country, especially in rural areas.

There are other limitations and possible biasing factors which affect the results of specific queries (for example, the effect of male interviewers on the responses of women in regard to their listening to the Women's Program). These are, however, stated and explained in the text of this report in the sections in which the relevant data are presented.

G. A FOOTNOTE ON FIELD RESEARCH DURING THE MONSOON

The field survey component of this study was carried out from May 22, 1974, to August 6, 1974. Nepal's summer monsoon began in June, of course, so much of the work had to be carried out under adverse weather conditions. A field researcher can be protected from the most immediate effects of the rain, wet clothes, by the simple expedients of raincoats and umbrellas. But there are other problems, too, some more subtle and less direct.

Travel in the rural areas of Nepal during the monsoon is difficult and unpredictable at best; sometimes it is even downright dangerous. The detours and delays of many hours which are caused by washed out bridges, the slips and falls which are caused by muddy trails, and the bleeding sores which are caused by everpresent leeches, serve well to dampen

a field interviewer's enthusiasm for his work. Although the project staff was able to keep its morale relatively high, it is also true that no one really enjoyed the field work under the monsoon conditions and all would recommend against its repetition unless there were emergency reasons for undertaking the work.

In addition, the monsoon can quickly cause havoc to even the best laid plans. Without considerable flexibility in design, the monsoon could quickly ruin a field project. Two examples from our recent experience illustrate this point well.

We decided that if at all possible we would like to include in our samples some respondents from Mahakali Zone, the area of Nepal which is farthest from Kathmandu. The first time our researchers attempted to travel to Mahakali Zone, they were able to get as far as Surkhet by air. From there they entered India to travel by train to Mahakali. Since the Indian rail strike had just ended, however, no seats were available and they could not get to Mahakali - short of walking for a month or so. They were then reassigned to another area. A month later we tried again. Our researchers obtained air tickets for Dhangardi, very near Mahakali Zone. As the pilot circled Dhangardi airport with our researchers aboard, however, he found the landing strip under water and returned to Bhairawa, far to the east. As there was then no hope of landing in Dhangardi for at least three months, our researchers, through a combination of rickshaw, train, bus, oxcart, and foot reached Mahakali from Bhairahawa via India. The tabulations for the "Far West" which appear so impersonally in this report were, therefore, not easily achieved.

When travelling to Dhankuta district, as to any other, the field researchers had quotas of certain linguistic groups that they were to interview. Once in the district, however, they discovered that it would be impossible to interview any individuals of one group as the only villages in which they lived had been cut off from travel by monsoon floods and

landslides. One of the researchers left the district entirely and journeyed to Saptari district, where he knew he would be able to find other individuals of the desired linguistic group. Having shifted from a hill district to a terai district, however, other modifications had to be made in sample selection in order to assure close conformity to the hill/terai population ratio.

We would like to suggest to all potential field researchers in Nepal as well as to all potential sponsors of field survey research that they think twice. Is the data really so important that it must be gathered during the monsoon? If it is, then we suggest proceeding with considerable flexibility. If it is not, then we suggest awaiting the clear blue skies of the early autumn.

III. BASIC RESULTS OF THE STUDY

A. THE NUMBER OF RADIOS IN NEPAL

Before the actual or potential impact of radio in Nepal can be considered in any depth, the first question that must be answered is. "How many radios are there in Nepal?" This is not an easy question to answer definitively although we have been able to obtain reasonable estimates.

One approach to obtaining this information would be to sample randomly a sufficiently large percentage of the national population to determine a percentage of radio ownership and then apply this figure to calculate the total number of radios. This procedure, which would be relatively complex and time consuming, was, of course, beyond the scope of the present project. We have, however, used two other means to make estimates of the upper and lower bounds on this number.

First, in each locality visited for the survey we obtained from the Pradhan Pancha's personal knowledge, the number of radios owned by villagers in the panchayat area and the total population of the area. Although admittedly only estimates in some cases, in many cases the exact numbers were known. Either way, the Pradhan Pancha was certainly the best possible source for this kind of information. Altogether 1109 radios were indicated as being owned by a total population of 84,816. These figures give us the estimate of one radio per 76.5 population. Applying this figure to the national population of 11,555,983, one obtains the estimate of 151,000 radios in the country. We feel that this number is probably an upper bound, however, as the localities on which it is based were purposely selected as those having a relatively large number of radios within the sample districts.

Secondly, questionnaires were mailed to the Panchayat Development Officers in each of Nepal's 75 districts asking them to supply the number of radios which have been registered

Table 6: DATA ON RADIO REGISTRATION IN 55 DISTRICTS RESPONDING TO QUESTIONNAIRE

District	Registered Radios	Population	Population per Radio	Households per Radio
Taplejung	1,000	84,715	85	15
Illam	736	139,538	190	34
Jhapa	4,119	247,698	60	11
Sankhuwa Sabha	627	114,313	182	33
Terhathum	642	119,307	186	34
Dhankuta	636	107,649	169	31
Morang	3,659	301,557	82	15
Solukhumbu	959	105,324	110	20
Khotang	1,136	163,297	144	26
Saptari	3,460	312,565	90	16
Siraha	1,645	302,304	184	33
Ramechhap	599	157,349	263	48
Sindhuli	462	147,409	319	58
Sindhupalchok	404	206,384	511	93
Rasuwa	64	17,517	274	49
Nuwakot	784	172,718	220	40
Lalitpur	1,035	154,998	150	27
Kathmandu	9,333	353,756	40	7
Makwanpur	791	163,766	207	37
Chitwan	2,282	183,644	80	15
Rautagat	1,316	320,093	243	44
Bara	1,173	233,401	199	36
Gorkha	1,084	178,265	164	30
Manang	14	7,436	531	96
Kaski	2,303	151,749	66	12
Parbat	903	118,689	131	24
Tanahun	758	158,139	209	38
Syangja	3,363	268,606	79	14
Palpa	233	212,633	913	165
Gulmi	1,253	227,746	182	33
Arghakhanchi	536	130,212	243	44
Kapilbastu	839	205,216	245	44
Mustang	103	26,944	262	47
Dolpa	105	19,110	182	33
Myagdi	265	57,946	219	40
Baglung	377	172,729	458	83
Rukum	183	96,243	526	95
Rolpa	165	162,955	988	179
Pyuthan	608	137,338	226	41
Dang Deukhuri	1,080	167,820	155	28
Humla	73	29,524	404	73
Tibrikot	64	10,017	157	28
Jumla	230	122,753	534	97
Dailekh	646	156,072	242	44
Surkhet	454	104,933	231	42
Banke	6,936	125,709	18	3
Bardia	344	101,793	296	54
Bajura	146	61,342	420	76
Bajhang	359	108,623	303	55
Achham	206	132,212	642	116
Doti	502	166,070	331	60
Kailali	1,254	128,877	103	19
Darchula	259	68,868	266	48
Baitadi	512	128,696	251	45
Dandeldhura	583	94,743	163	29
TOTAL	63,606	8,149,310	128.1	23

in their districts. (Annual radio registration is legally required for tax purposes.) Each questionnaire was a stamped aerogramme addressed to New ERA and was accompanied by a letter of explanation. The number of responses received was 55. Table 6 lists each district from which responses were received, the number of registered radios, the district's 1971 population, and other derived data. An examination of the table will indicate that the proportion of registered radios to population and to households (based on the Central Bureau of Statistics estimate of 5.53 individuals per household) varies greatly from district to district. This variation probably reflects two things: actual variation in the number of radios and variation in the enforcement of the law. Over the 55 districts, however, we find 63,606 radios registered by a population of 8,149,310. This is one registered radio per 128.1 population. Assuming that the remaining 20 districts from which responses were not received average a similar ratio (and there is no reason to believe otherwise), the total number of registered radios in Nepal is approximately 90,000. We believe that this number is a lower bound on the number of radios, however, as it does not, by definition, include any radios which are not registered.

Having gathered data to define the upper and lower bounds on the number of radios in the country, we still feel compelled to provide a subjective estimate of the actual number. Approximately mid way between our two bounds of 1:76.5 and 1:128.1 lies the enticing ratio of 1:100. We suggest that this ratio is very convenient and not unreasonable to assume given the data we have collected. Hereafter, we will use this ratio as a "rule of thumb" and suggest that others do the same. A summary of upper and lower bounds as well as the rule of thumb estimates is contained in Table 7.

Table 7: UPPER BOUND, RULE OF THUMB ESTIMATE, AND LOWER BOUND OF BASIC RADIO OWNERSHIP STATISTICS FOR NEPAL

	Upper Bound	Estimate	Lower Bound
Ratio of Radios/Population	1:76.5	1:100	1:128.1
Ratio of Radios/Households	1:14	1:18	1: 23
Total Number of Radios	151,000	115,000	90,000

It had been hoped to determine a more accurate lower bound to these figures during fieldwork by obtaining an estimate of the number of unregistered radios. It quickly became apparent, however, that obtaining objective data on this would be difficult as we would have been asking people to admit that they were breaking a well known tax law. Even informally the villagers were very reluctant to share the needed information. Rather than press the issue, we dropped it.

B. WHO OWNS A RADIO, WHO DOES NOT

115,000 Nepalis own a personal radio. But, the question remains, which 115,000 Nepalis? Is there anything unique about this 1% of the total population or do they constitute something of a random sample? In order to better answer these questions, certain biographical information was obtained from each radio owner in the sample. In addition, similar information was obtained from the non-owners for the purpose of comparison. Some of the resulting data provide interesting information while some are less than informative.

A number of variables which it would be interesting to investigate in this regard (ethnicity, linguistic stock, urban vs. rural residence, geographic locality) were all predetermined by the sampling procedure. For these

variables, then, no statements can be made. Other variables, however, were selected for investigation: nuclear family size, extended family size, number of children, level of education and literacy, and occupation. Information regarding these variables was directly solicited from the respondents.

For each of the three variables regarding family size, population means were calculated for both owners and non-owners. The mean number of children among the sample of radio owners is 2.53, while among non-owners it is 2.63. The mean nuclear family size is 4.42 individuals among owners while it is 4.59 among non-owners. The mean extended family size is 7.57 among owners while it is 7.10 among non-owners. The differences in the mean values between the sample of owners and the sample of non-owners are not statistically significant (at a .05 level of confidence). Thus, no difference was found with regard to the variables of family size between those who own radios and those who do not.

Both owners and non-owners were asked to indicate the highest level of formal education which they had completed. Each respondent's answer was coded into one of a number of categories. Those who indicated that they were unschooled were then asked if they were nevertheless literate. The results to these questions are presented in Table 8, even though there are serious reasons to doubt their validity.

Table 8: STATED LEVEL OF COMPLETED FORMAL EDUCATION AMONG RADIO OWNERS AND NON-OWNERS

Level Completed	% of Owners (N=306)	% of Non-owners (N=153)
Unschooling illiterate	17.6%	34.6%
Unschooling literate	37.6%	32.7%
Completed 7th class or less	7.5%	9.8%
Completed 8th to SLC	28.1%	14.4%
Completed IA or equivalent	3.6%	3.3%
Completed BA or equivalent	3.3%	2.6%
Miscellaneous	2.3%	2.6%

Radio owners claim a higher level of literacy and a greater length of education than non-owners. This data would tend to support the hypothesis that radio owners are part of a social and educational elite within their communities if it were not for the seeming lack of credibility of the data from non-owners. The sample non-owners, too, claim considerably higher literacy and length of education than the national norms. Such claims could be caused by the sampling technique itself, although this is doubtful as it was heavily weighted toward rural areas, where literacy and education should be lowest. It could also be caused by a psychological need on the part of some respondents to place themselves in a more nearly equal position vis-a-vis the interviewer. If this is the true cause of the discrepancies indicated, it might also be the cause of the seemingly higher literacy and schooling rates among radio owners.

This data, therefore, neither supports nor disputes the hypothesis that radio owners are an educated elite within their communities. This hypothesis, a potentially important one to radio broadcasting, must yet be tested. In doing so, however, educational levels and literacy should be verified objectively; respondents' claims should not be taken at face value.

Respondents were also asked their occupation. Among owners and non-owners, the great majority were farmers. Another large percentage combined farming with another job (portering, teaching, shop-keeping, etc.)

Table 9: OCCUPATIONS OF RADIO OWNERS AND NON-OWNERS

Occupation	% of Owners (N=302)	% of Non-owners (N=153)
Farmer	63.2%	66.0%
Farmer plus additional work	14.2%	9.8%
Business (shop-keeper)	11.9%	8.5%
Government Officer	5.0%	6.5%
General labor	0%	3.3%
Student	3.3%	0%
Miscellaneous	2.3%	5.9%

As with the variables relating to family size, there seems to be no significant difference between the occupation patterns of the radio owners and non-owners included in our sample.

One social variable for which considerable differences can be expected between owners and non-owners is financial wealth. Yet, this variable is almost impossible to measure directly and accurately. For various understandable reasons, Nepalis are almost universally unwilling to divulge information regarding their family income or assets. For this reason, an indirect approach to measuring the relationship of wealth to radio ownership was attempted. The procedures and results are described in the next section.

C. RADIO COST AND VALUE

As we have seen, ownership of a radio is not common in Nepal. There is, perhaps, only one radio per hundred population. An obvious question to ask is why this is so. Similarly, an obvious hypothesis to be tested is that the cost of a radio is so high that only certain wealthy groups and individuals are able to set aside sufficient funds for such a purchase. This hypothesis was investigated in a number of ways and was, in general, confirmed as the major difficulty to be overcome if wider distribution of radios is to occur in Nepal.

Each radio owner was asked to indicate how much his radio had cost. The range of responses was wide, from under 200 rupees to over 1300 rupees. There were a number of non-respondents to this question. Their reluctance to provide an immediate answer was honored; they were not pressed for one in order to avoid the inclusion of what might have been misleading data. In addition, a small number of individuals indicated that they had obtained their radios without cash expenditure, including five radios which actually belonged to the local panchayat, two which were gained through dowries, and one which was won in a lottery.

The average cost indicated by the 221 respondents who freely indicated the cost of their radio was 668 rupees NC. By way of comparison to this figure, the Central Bureau of Statistics estimates that Nepal's per capita income for 1972-73 (at stable prices) was 562 rupees NC (Rising Nepal, October 7, 1974).

Table 10: PERCENTAGE OF OWNERS INDICATING RADIO PURCHASE COST IN GIVEN RANGES

<u>Purchase Cost Range (Rupees NC)</u>	<u>Percentage of Owners (N = 229)</u>
101 - 200	0.4%
201 - 300	7.4%
301 - 400	8.3%
401 - 500	11.8%
501 - 600	11.8%
601 - 700	17.5%
701 - 800	11.8%
801 - 900	7.4%
901 - 1000	10.0%
1001 - 1100	3.9%
1101 - 1200	2.6%
1201 - 1300	1.3%
Above 1300	2.2%
No purchase cost	3.4%

Non-owners were asked why they had not bought a radio. Almost three quarters of the responses were some variant of "no money" "insufficient money," or "radios are too expensive." Only a very few respondents indicated that they had not bought a radio because they were not interested in listening to it. There was no significant difference in responses among geographic areas. The hill/terai breakdown of responses included in Table 11 indicates this.

Table 11: REASONS FOR NOT PURCHASING A RADIO EXPRESSED BY NON-OWNERS

<u>Reason Expressed</u>	<u>Hill Respondents (N= 102)</u>	<u>Terai Respondents (N=51)</u>	<u>National Sample (N=153)</u>
Insufficient money	67%	80%	71%
I can listen to others' radios	16%	8%	13%
Not interested in listening	5%	2%	4%
Other	15%	1.0%	13%
No response	9%	4%	7%

(Percentages do not add to 100% because some respondents cited more than one reason. Several individuals refused to answer, presumably because of the reflection the answer might have had

The non-owners were also asked to indicate the maximum they felt they could afford to pay for a radio. A number of respondents declined to answer or reaffirmed their lack of interest in listening to radio. For the rest, their responses stand in marked contrast to the data on radio cost provided by the owners. Fully 17% of the 129 who did respond indicated that they could not afford a radio at any price! Table 12 indicates the number and percentage of respondents who indicated maximum values in given ranges.

Table 12: MAXIMUM PRICE NON-OWNERS COULD AFFORD TO PAY FOR A RADIO

Maximum Price	Number of Respondents	% of Respondents (N=129)
0	22	17.1%
0 - 50	3	2.3%
51 - 100	5	3.9%
101 - 150	19	14.7%
151 - 200	25	19.4%
201 - 250	6	4.7%
251 - 300	18	14.0%
301 - 350	2	1.6%
351 - 400	6	4.7%
401 - 500	13	10.1%
501 - 600	5	3.9%
601 - 700	2	1.6%
701 - 800	2	1.6%
800 - 1000	1	0.8%

Figure 2 presents the same data in a graphical and slightly rearranged form. The percentage of non-owners who could not afford to purchase a radio above a given hypothetical price is shown on the graph. Specific points have been plotted from our data and a smooth curve has been drawn to approximate the relationship indicated. Note that this method of presentation effectively removes the tendency among respondents to indicate round numbers, especially multiples of one hundred rupees.

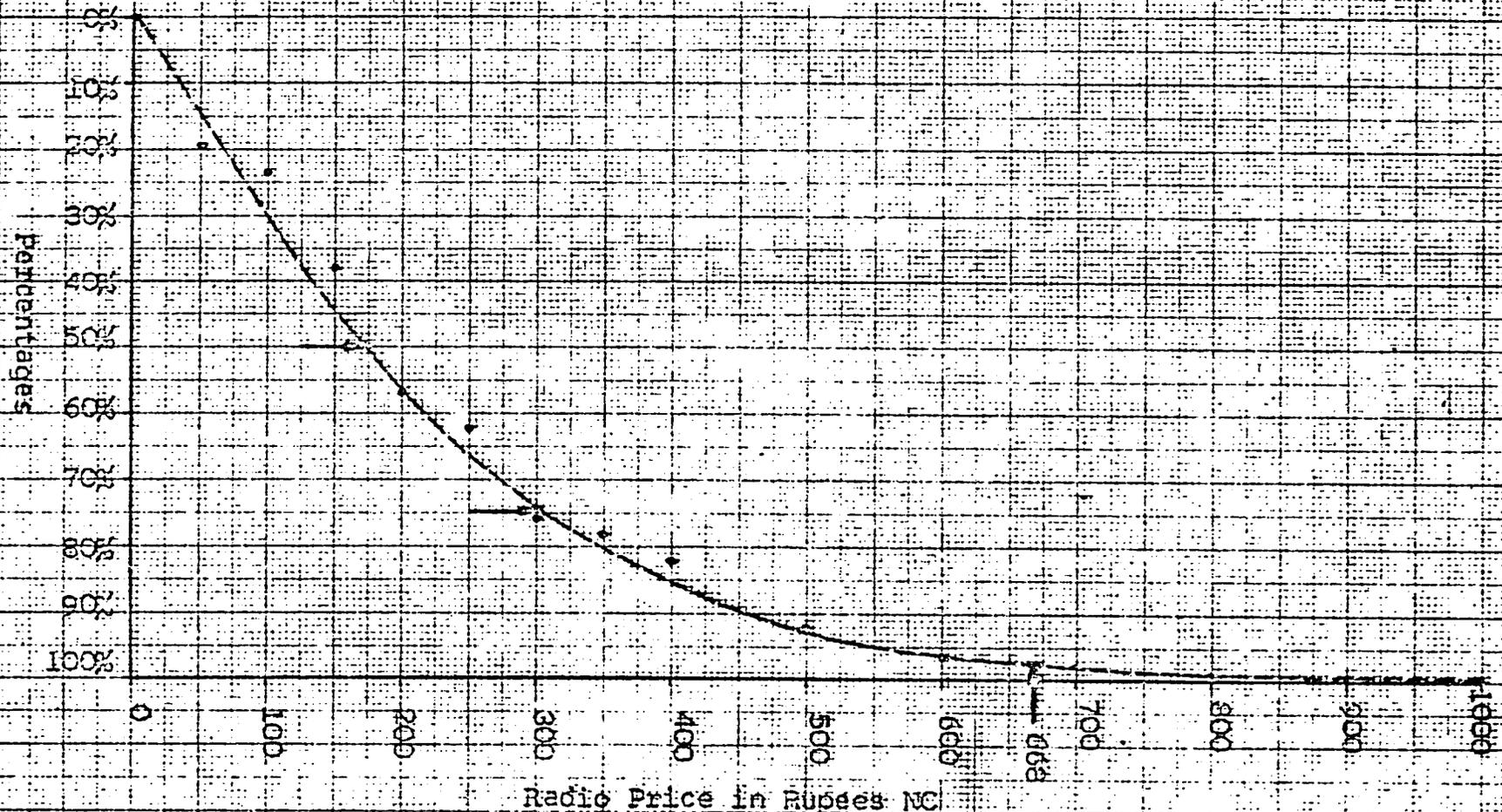


FIGURE 2: PERCENTAGE OF NON-OWNERS WHO COULD NOT AFFORD A RADIO ABOVE A GIVEN PRICE (N=129)

Figure 2 clearly indicates that approximately half of the non-owners could not afford to buy a radio if it were priced above 175 rupees NC, that approximately three quarters of the non-owners could not afford a radio priced above 300 rupees NC, and that less than 3% could afford a radio priced at or above the 668 rupee average cost of radios.

This data, then, strongly supports the hypothesis that the current high cost of radios is a very strong factor inhibiting their wider distribution in Nepal. As nearly 50% of the current purchase price of a radio in Nepal is an import tax, the question must be raised as to whether this tax should not be severely reduced or eliminated. Figure 2 indicates, however, that even with the elimination of this tax, a large percentage of Nepal's population will still be unable to purchase a radio. Other means must be found to achieve wider distribution of this, the Kingdom's only mass communications medium.

D. CONTROL OF THE RADIO

The expenditure required to purchase a radio is not inconsiderable in the context of Nepal. In addition, the rarity with which radios are found in the population as a whole adds to their status value. When a family or household obtains a radio, it therefore becomes an important symbol of their economic, if not social, status.

This study began with the tentative hypothesis that as an object of considerable status and economic import to a family, a radio would not be handled by all members of the family. It was hypothesized that only one or, possibly, two family members would be allowed to "tune" the radio - that is, turn it on and off and select stations or programs to be listened to. It was further hypothesized that the person to whom this prerogative would fall would generally be the authority figure in the household. This hypothesis seemed important to us, not simply from the sociological standpoint.

but for the very practical reason that whoever controls the radio ~~determines what the others present listen to~~ as well as when they listen.

The interviewers asked each radio owner, "Who usually tunes the radio in your home?" The initial response of many owners was either relatively vague or all-encompassing like, "Oh, everyone in the house tunes it." The interviewer would then repeat the question with emphasis on the "usually." Often the respondent would then pause and give an answer, although phrased in a tentative fashion.

Table 13 and Table 14 below present the data on control of the radio which was obtained from the respondents. Neither table, of course, indicates the initial indifference to this issue on the part of many respondents which was perceived by the interviewers. Thus, although the data does support our initial hypothesis, it should not be taken too seriously. Control of the radio may not be an important issue within a household and there may exist some latitude for utilization of the radio by a variety of family members. Despite this qualification, the data indicates that the Head of the Household* tunes the radio most frequently. The women in the family generally have less access to the radio than the other family members.

* Head of the Household will almost always be the eldest male in the direct family line. In some cases, however, this individual may be too old to participate in family affairs, may be living and working away from the family home, or may be deaf. In such cases, for the purpose of this study the Head of the Household was defined as that individual who makes the major household decisions.

Table 13: INDIVIDUAL FAMILY MEMBERS WHO USUALLY TUNE THE RADIO

Individual Who Tunes the Radio	% of Cases (N = 306)
Head of the Household	82%
Son of the Household Head	37%
Brother of the Household Head	15%
Wife of the Household Head	12%
Daughter of the Household Head	10%
Other Relatives	6%

(Percentages do not total 100 because some respondents reported more than one individual in the household as the usual radio tuner.)

Because some respondents suggested more than one individual as the usual tuner of the radio, Table 14 has been included to indicate the number of individuals in a household who have access to the radio as reported by our sample radio owners.

Table 14: NUMBER OF INDIVIDUALS IN A HOUSEHOLD WHO USUALLY TUNE THE RADIO

Number of Radio Tuners	% of Cases (N = 306)
Single radio tuner	58%
Two radio tuners	27%
Three radio tuners	10%
Four or more radio tuners	5%

These tables indicate national averages. There were no significant variations by geographic region in this data.

E. METER BANDS OF RADIO NEPAL

Radio Nepal has five transmitters, two of 250 watts, one of 5 kilowatts, one of 10 kilowatts, and one of 100 kilowatts power. During the field phase of this study (May 22, 1974 - August 4, 1974) the three largest transmitters were being utilized to broadcast on three different frequencies as follows:

60 Meter (Short Wave),	5.0 MHz:	5 kilowatt transmitter
90 Meter (Short Wave),	3.4 MHz:	100 kilowatt transmitter
379 Meter (Medium Wave),	790 KHz:	10 kilowatt transmitter.

During the latter part of July, Radio Nepal switched its transmission from the 60 meter Short Wave band to the 41 meter Short Wave band at 7.1 MHz. This occurred during the last few days of our field work and only three cases of listening on this new frequency were recorded by the field researchers. For all practical purposes, it can be assumed that Radio Nepal was broadcasting on the initial three frequencies during the entire period of data gathering.

In order to listen to Radio Nepal, an owner's radio must be able to receive one of the frequency bands on which the transmissions are broadcast. Owners were, therefore, asked to indicate which meter bands were available on their radio. Of the 306 respondents, 72% indicated that their radio was "all transistor," that is, that it was able to receive all Short Wave bands as well as the Medium Wave band. An additional 25% had the ability to receive Radio Nepal on at least two of its broadcast frequencies. 2% could receive the Medium Wave only (and all of these were in the Central Region). Thus, the radios of all respondents were well equipped to receive Radio Nepal broadcasts.

The respondents were also asked to indicate on which meter bands they actually listened to Radio Nepal. On a nationwide basis, the sample population listens to the 90 meter transmission most commonly. 60% of the sample of owners listen to Radio Nepal on the 90 meter band; 34% listen on the 60 meter band; 19% listen on the Medium Wave band. (These percentages do not total 100 because some respondents indicated that they listen on more than one band.)

In this case, however, nationwide averages are not as important as the inter-regional differences which were discovered. As might be expected, different wavelengths are more important in different regions of the country. The 90 meter

band is much more important, for example, in the Eastern Region and the Far Western Region than it is in the Central Region. Conversely, Medium Wave is the most commonly listened to band in the Central Region.

To display the details of this information in an illuminating manner, three tables have been constructed: Table 15, Table 16 and Table 17 below. In each table there are eight cells, each cell corresponding to one of the eight convenient geographical divisions of the country. In each cell is the percentage of respondents in that geographical division who reported listening to Radio Nepal on the specified meter band.

Table 15: PERCENTAGE OF RESPONDENTS WHO LISTEN TO RADIO NEPAL ON THE 60 METER (SHORT WAVE) BAND BY GEOGRAPHICAL AREA

Far Western Hills 32%	Western Hills 39%	Central Hills 60%	Eastern Hills 30%
Far Western Terai 24%	Western Terai 36%	Central Terai 46%	Eastern Terai 26%

Table 16: PERCENTAGE OF RESPONDENTS WHO LISTEN TO RADIO NEPAL ON THE 90 METER (SHORT WAVE) BAND BY GEOGRAPHICAL AREA

Far Western Hills 72%	Western Hills 57%	Central Hills 3%	Eastern Hills 78%
Far Western Terai 68%	Western Terai 61%	Central Terai 38%	Eastern Terai 63%

Table 17: PERCENTAGE OF RESPONDENTS WHO LISTEN TO RADIO NEPAL ON THE 379 METER (MEDIUM WAVE) BAND BY GEOGRAPHICAL AREA.

Far Western Hills 0%	Western Hills 4%	Central Hills 90%	Eastern Hills 2%
Far Western Terai 37%	Western Terai 46%	Central Terai 15%	Eastern Terai 5%

In general these tables indicate three major conclusions:

- A. Except in the Central Region, the 60 meter band is listened to by approximately 1/3 of the sample. In the Central Region, especially in the hills, a considerably larger percentage listen to this band.
- B. Except in the Central Region, the 90 meter band is listened to by approximately 2/3 of the sample. In the central terai approximately 1/3 listen to this band while in the central hills a negligible percentage listen to it.
- C. The Medium Wave transmissions are listened to by nearly all the respondents in the central hills and by a considerable percentage in the western and far western terai areas. Elsewhere a negligible percentage of respondents listen to these transmissions.

It should be noted that this data has been outdated by the switching of broadcasts from the 60 meter band to the 41 meter band. We are not able to say on which band the previous listeners to the 60 meter band now listen to Radio Nepal. Nor are we able to indicate how many listeners may have switched from the other bands and now listen on the 41 meter band. It should be kept in mind, therefore, that the data in these three tables is representative only of the listening habits among the respondents during the early summer of 1974 and is not representative of the present situation.

F. RECEPTION QUALITY

The sample of radio owners generally appraised the reception quality of Radio Nepal to be good. When asked to describe the reception quality as "clear," "okay," or "not clear," 68% of the 291 owners who responded indicated that the reception was generally clear, 26% indicated that it was generally okay, and only 5% indicated that it was not clear.

Here again, however, there were significant regional variations. As might be expected, reception of Radio Nepal in the Far Western Region is less clear than anywhere else in the Kingdom. Table 18 indicates the percentage of respondents in each of the eight geographical divisions of the country who rated the reception quality of Radio Nepal as "clear," "okay," or "not clear."

Table 18: PERCENTAGE OF RESPONDENTS IN A GEOGRAPHICAL AREA WHO INDICATED RECEPTION OF RADIO NEPAL TO BE OF A SPECIFIED QUALITY

A. Reception is generally "Clear":

Far Western Hills 39%	Western Hills 78%	Central Hills 80%	Eastern Hills 72%
Far Western Terai 73%	Western Terai 96%	Central Terai 77%	Eastern Terai 94%

B. Reception is generally "Okay":

Far Western Hills 43%	Western Hills 22%	Central Hills 20%	Eastern Hills 28%
Far Western Terai 22%	Western Terai 4%	Central Terai 15%	Eastern Terai 6%

C. Reception is generally "Not Clear":

Far Western Hills 18%	Western Hills 0%	Central Hills 0%	Eastern Hills 0%
Far Western Terai 5%	Western Terai 0%	Central Terai 8%	Eastern Terai 0%

Table 18, of course, represents nothing more than the radio owners' general estimate of overall reception quality of Radio Nepal. There can be, however, significant diurnal and annual variations in reception quality.

When asked to specify annual variations by indicating a season of poorest receptivity, a negligible number of respondents were able to give replies.

On the other hand, when asked to specify diurnal variations by indicating "morning," "day," or "evening" as the time when reception of Radio Nepal was not good, a considerable number of respondents provided useful information. Once again, the significance of the data does not lie in national averages as much as it does in the variations between geographical areas of the country. Table 19 presents the data broken down by the eight geographical areas. Each cell of the table contains the percentage of respondents in that area who reported reception problems for that time of the day.

Table 19: PERCENTAGE OF RESPONDENTS IN A GEOGRAPHICAL AREA WHO INDICATED RECEPTION PROBLEMS AT A SPECIFIED TIME OF DAY

A. Reception is not good in the "Morning":

Far Western Hills 15%	Western Hills 4%	Central Hills 0%	Eastern Hills 0%
Far Western Terai 10%	Western Terai 4%	Central Terai 0%	Eastern Terai 0%

B. Reception is not good in the "Day":

Far Western Hills 94%	Western Hills 29%	Central Hills 0%	Eastern Hills 11%
Far Western Terai 81%	Western Terai 54%	Central Terai 6%	Eastern Terai 5%

C. Reception is not good in the "Evening":

Far Western Hills 1%	Western Hills 11%	Central Hills 0%	Eastern Hills 6%
Far Western Terai 0%	Western Terai 0%	Central Terai 0%	Eastern Terai 0%

The daytime is decidedly the time of least clear reception, especially in the Western Region. It must be emphasized, however, that the judgement of reception quality is quite subjective. It depends on the respondent's memory, the meter band listened to, the weather, and the quality of the radio receiver among other things. A more precise discussion of reception quality must await completion of a scientific inquiry utilizing standardized electronic equipment.

G. PRIME LISTENING TIME

The potential impact of radio depends not only on the distribution of radio receivers among the population, but also on the patterns of use to which the receivers are put by their owners. When do individuals actually listen to the radio in Nepal? With what regularity do they listen? What is the most convenient time of day to listen to the radio? What is "prime time" for Nepal? In order to reach an estimate of the patterns of listening in Nepal, a number of questions were asked of the radio owners in our study.

The respondents were asked to indicate what time of day they actually listened to their radio. Table 20 indicates the percentages of respondents who reported listening to the radio during each of the hours indicated. The data for the full national sample is displayed as a large bar graph in Figure 3 and as a part of Figure 4. The day is clearly broken into three blocks of listening time. The evening block has the largest percentage of listeners: between 7:00 P.M. and 8:00 P.M. 93% of the respondents report listening to the radio. During the morning between 7:00 A.M. and 8:00 A.M., 86% of the respondents report listening to the radio. The afternoon block has the fewest listeners: even at the peak period between 2:00 P.M. and 3:00 P.M. less than 50% of the respondents report listening to the radio.

There is little variation to this pattern between geographical areas of the country. Figure 4 contains one small graph for each of the eight areas. The obviously lower listening during the afternoon block of time in the eastern terai is not a significant variation given the relatively small sample size on which it is based. Clearly the data shows that there are certain times of day when nearly everyone is listening to his radio and that there are other times when almost no one is listening. This data was further reinforced by the observations of our researchers. In their travels and direct observations the researchers perceived that not only do most owners listen to the radio at set times every day, but that their program selection is also highly regular. For owners in our sample, then, radio listening seems to constitute one element in their pattern of daily activities. Rather than a casual or haphazard switching on and off, use of the radio appears to be a very deliberate activity within the daily rounds.

The data from the response to this question also provide a preliminary basis from which to calculate the average number of hours a radio owner listens to his radio during each of

Table 20: PERCENTAGE OF RADIO OWNERS IN EACH GEOGRAPHICAL AREA WHO:

(A) REPORT LISTENING TO THE RADIO BETWEEN SPECIFIED HOURS;

Geographic Area	Hours																			
	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
Eastern Hills (N=54)	0%	11%	65%	91%	59%	24%	0%	9%	15%	39%	46%	33%	0%	48%	94%	96%	72%	41%	20%	0%
Eastern Terai (N=19)	0	16	63	79	53	21	0	0	11	11	16	11	5	0	95	100	79	47	16	0
Central Hills (N=30)	3	7	67	77	20	27	3	0	0	27	40	10	0	13	70	100	97	83	63	0
Central Terai (N=18)	0	0	22	83	56	17	0	6	11	39	67	39	0	6	44	61	56	67	39	0
Western Hills (N=28)	0	0	64	82	79	32	0	0	7	39	61	25	0	14	71	96	89	57	21	0
Western Terai (N=28)	4	4	89	89	46	18	4	18	25	79	57	4	0	25	79	93	86	46	18	0
Far Western Hills (N=87)	0	2	60	87	64	26	1	0	17	39	45	24	3	37	55	91	75	51	25	0
Far Western Terai (N=42)	0	2	62	93	57	26	2	5	19	62	57	19	0	33	69	95	88	64	24	0
Nationwide (N=306)	1%	5%	63%	86%	58%	25%	1%	4%	14%	43%	48%	22%	1%	29%	71%	93%	80%	55%	29%	0%

Table 20 (Continued): PERCENTAGE OF RADIO OWNERS IN EACH GEOGRAPHICAL AREA WHO:

(B) REPORT SPECIFIED HOURS AS "BEST" TO LISTEN.

Geographic Area	Hours																			
	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
Eastern Hills (N=54)	0%	4%	9%	17%	11%	4%	0%	0%	2%	6%	7%	7%	0%	7%	63%	76%	56%	33%	13%	2%
Eastern Terai (N=19)	0	0	0	0	0	0	0	0	5	5	5	0	0	0	79	95	63	32	5	0
Central Hills (N=30)	0	0	43	67	30	17	3	3	0	40	43	3	0	13	57	97	97	87	57	0
Central Terai (N=18)	0	0	0	11	6	0	0	0	0	0	6	11	0	6	17	44	33	22	28	0
Western Hills (N=28)	0	0	7	14	14	7	0	0	0	0	0	4	0	4	39	57	54	29	11	0
Western Terai (N=28)	0	0	0	0	0	0	0	0	4	4	0	0	0	11	71	96	61	29	7	0
Far Western Hills (N=87)	0	0	36	59	44	15	0	1	5	14	11	5	0	21	41	70	62	52	18	8
Far Western Terai (N=42)	0	0	21	43	38	19	0	0	7	12	12	5	0	29	50	69	62	45	17	0
Nationwide (N=306)	0%	1%	20%	34%	24%	10%	0%	1%	3%	11%	11%	5%	0%	14%	51%	75%	62%	44%	19%	3%

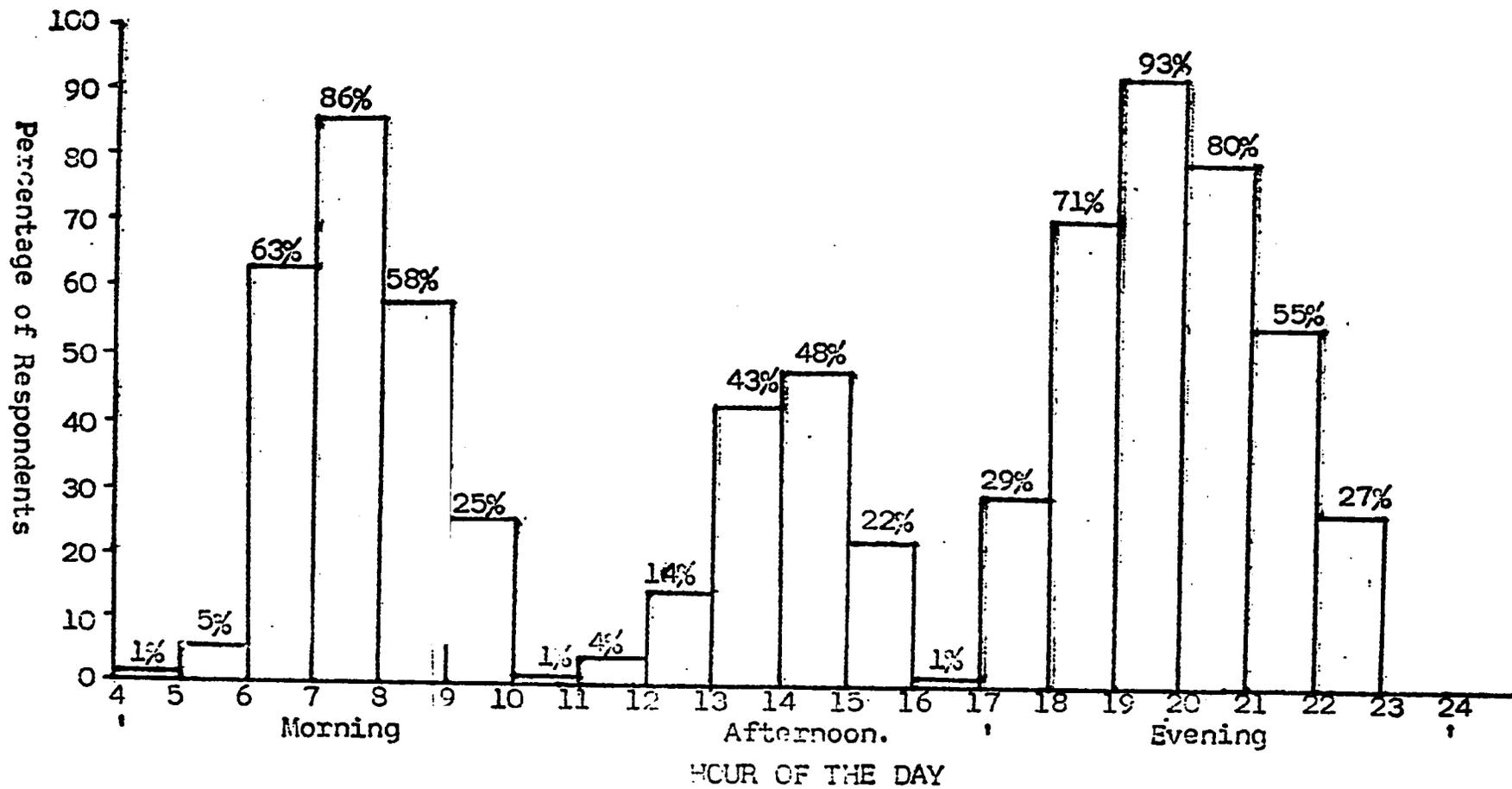


Figure 3: Percentage of Radio Owner Who Listen to the Radio During Specified Hours of the Day

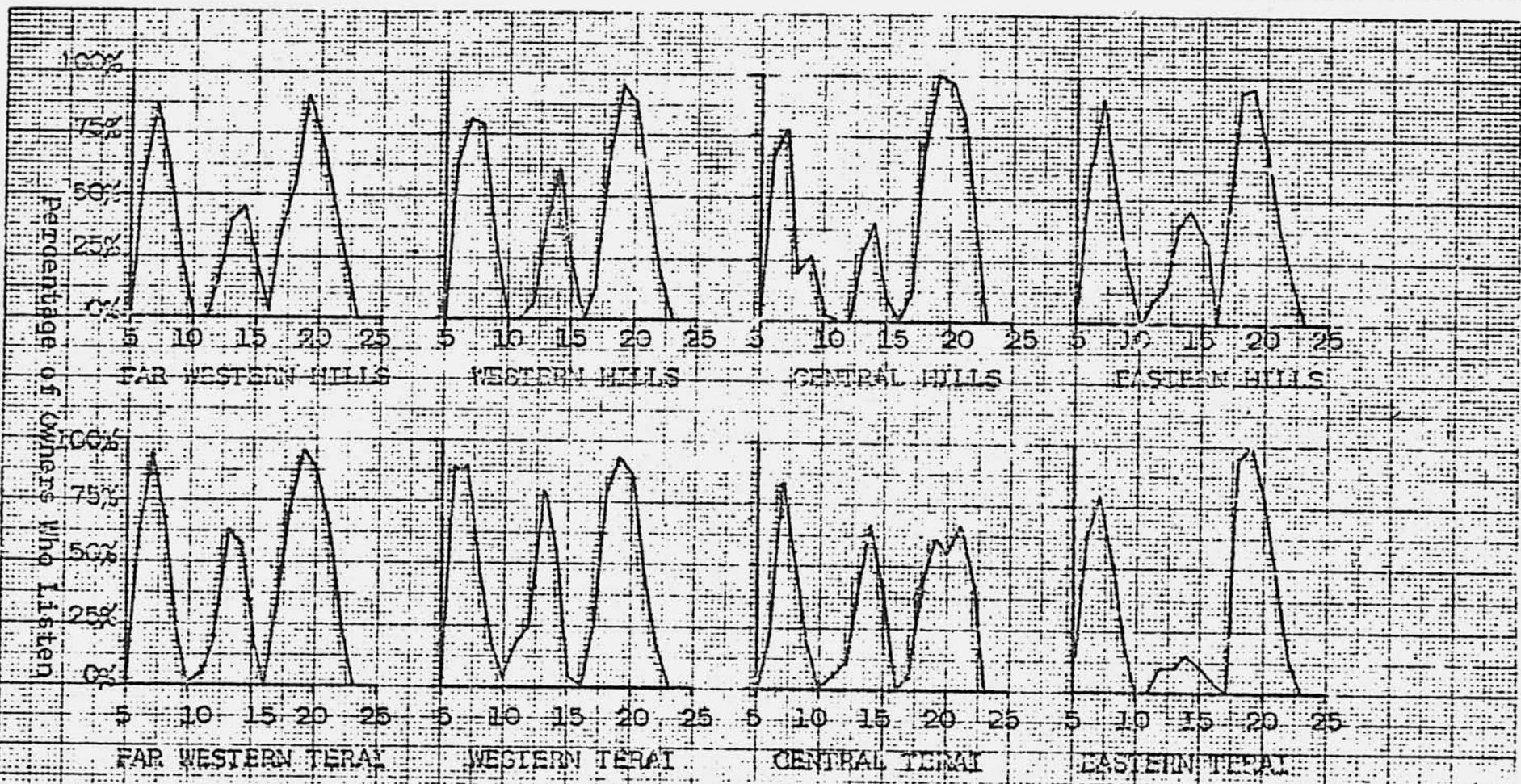


Figure 4: PERCENTAGE OF RADIO OWNERS IN EACH GEOGRAPHICAL AREA WHO REPORT LISTENING TO THE RADIO BETWEEN SPECIFIED HOURS



the time blocks. This data, shown in Table 21, is, however, based on the assumption that the owner listens for the full 60 minute period between each set of clock hours. Thus, the data must be interpreted as simply an upper bound on the true average, which may be as much as 1/3 to 1/2 less than that indicated.

Table 21: UPPER BOUND ON AVERAGE NUMBER OF HOURS OF RADIO LISTENING IN EACH OF THE THREE TIME BLOCKS: MORNING, AFTERNOON, AND EVENING

	<u>Morning</u> <u>5 AM - 12 Noon</u>	<u>Afternoon</u> <u>12 Noon - 5 PM</u>	<u>Evening</u> <u>5 PM - 11 PM</u>
Upper Bound on Hours Listened	2.5 hours	1.3 hours	3.5 hours

Given the existence of this pattern, the radio owners were also asked to indicate the regularity with which they listened to the radio during each of the three time blocks. Answers were coded against the categories "almost always," "sometimes," and "never." The responses, as shown in Table 22, indicate that there is a high degree of regularity in listening habits, especially with regard to the evening and morning time blocks. In addition, there is no significant variation in this data among the geographical areas of Nepal.

Table 22: REGULARITY WITH WHICH RESPONDENTS LISTEN TO THE RADIO DURING THE THREE TIME BLOCKS: MORNING, AFTERNOON, AND EVENING (N = 306)

<u>Time Block</u>	<u>Almost Always</u>	<u>Sometimes</u>	<u>Never</u>
Morning	78%	18%	4%
Afternoon	28%	30%	42%
Evening	93%	5%	2%

Simple statistics on the hours when respondents listen to the radio are complicated by the actual programming practices of the broadcasting stations being listened to. The broadcasting of an especially popular or unpopular program may affect the listening in a given time period. In order to eliminate this factor from our analysis of "prime time" the radio owners in our sample were also asked to indicate the

times of day that were "convenient" or "best" for them to listen to the radio.

The responses to this question have been tabulated as percentages in Table 20 and have been displayed in the graphs of Figure 5. When the data on "best" listening times of Figure 5 are compared with the data on actual listening patterns of Figure 4, some interesting observations may be made.

- A. Only for the respondents in the central hills do the two sets of data compare closely.
- B. Except for the central hill respondents, few owners indicated any hour of the afternoon time block to be "best."
- C. Actual listening patterns during the evening time block closely correspond to the respondents' feelings of convenience during those hours.
- D. Although nearly all respondents in all the geographic areas report listening to the radio in the morning, few report such time as being "best" for them. Exceptions to this statement occur only in the central hills and the Far Western Region, both hills and terai.

As these patterns were unknown and unsuspected prior to this study, there was no attempt to ascertain their causes. One could, however, offer certain hypotheses which could be tested through further research. The general feeling of the terai respondents that morning is not a convenient time to listen to the radio, for example, might be caused by the desire to complete agricultural activities during the coolest hours of the day, the early morning hours. Notwithstanding such a hypothesis, the morning news or some other program may be of sufficient interest to result in the reported listening patterns.

Explanations for these patterns should be sought to assure that programming decisions are made that meet the needs and desires of potential listeners in all areas of the country, not just in the central hills.

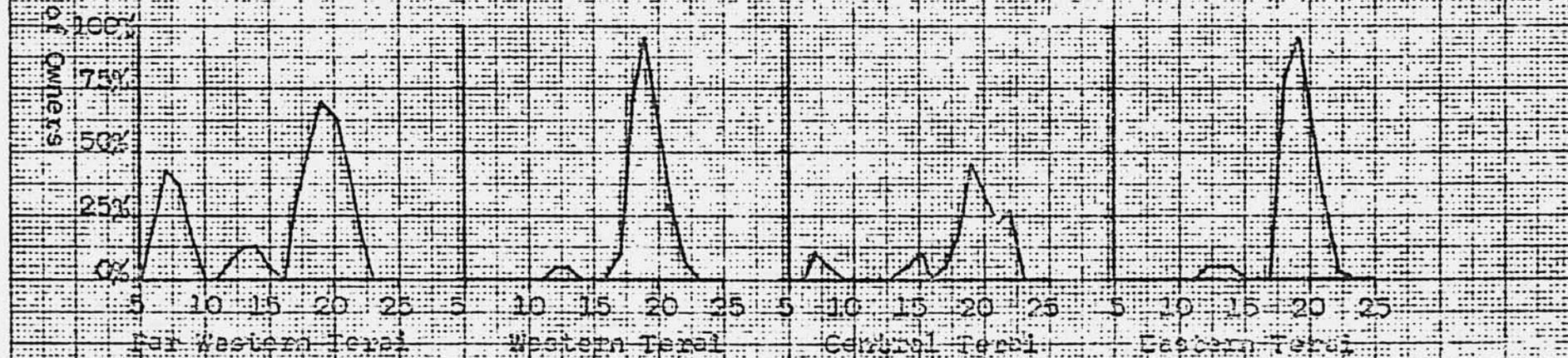
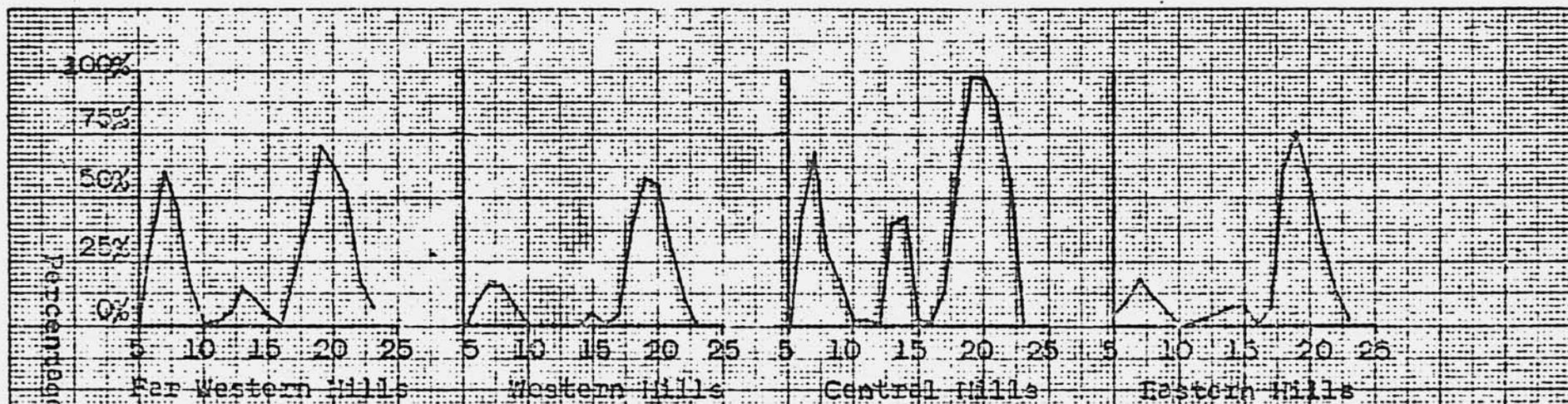


Figure 5: PERCENTAGE OF RADIO OWNERS IN EACH GEOGRAPHICAL AREA WHO REPORT SPECIFIED PROGRAMS AS "BEST" TO LISTEN



H. LISTENING TO AND UNDERSTANDING RADIO NEPAL

Each radio owner in the national sample was asked, "Do you listen to Radio Nepal?" Responses to the question were coded against the terms "almost always," "sometimes," and "never." Of the 305 nationwide respondents, 88.5% replied "almost always," 9.8% replied "sometimes," and only 1.7% replied "never." The percentage of respondents in each geographical area who replied in each category is indicated in Table 23. It should be noted that all respondents who indicated that they "never" listen to Radio Nepal reside in either the eastern or central terai. In addition, these two areas account for nearly 50% of the "sometimes" listeners.

Table 23: FREQUENCY OF LISTENING TO RADIO NEPAL BY GEOGRAPHICAL AREA

	Far Western Hills	Western Hills	Central Hills	Eastern Hills
Almost Always	88%	96%	97%	96%
Sometimes	12%	4%	3%	4%
Never	0%	0%	0%	0%
	Far Western Terai	Western Terai	Central Terai	Eastern Terai
Almost Always	95%	100%	33%	63%
Sometimes	5%	0%	45%	32%
Never	0%	0%	22%	5%

Those 35 respondents who answered that they "sometimes" or "never" listened to Radio Nepal were then asked to indicate why they did not listen more often. 21 (60%) answered that they were unable to understand much or all of the Nepali language broadcast (all of these were in the terai), 8 (23%) replied that poor reception was the reason (all of these were in the Far Western Region), and the remainder indicated various miscellaneous reasons.

Because language comprehension was the major reason for not listening to Radio Nepal, all radio owners in the sample were asked to indicate whether they generally "understand,"

"understand some," or "do not understand" the language of the programs on Radio Nepal. In gathering this information in the central hills, however, one interviewer made procedural and coding errors regarding the first two categories. Of the 270 responses received in the other seven geographical areas, however, 89% indicated that they "understand" the language and 8.5% indicated that they "understand some." Data from respondents who indicated that they "do not understand" was recorded correctly for the entire sample. Nationally, 2.7% of the study sample indicated that they did not understand the language of programs on Radio Nepal. As indicated in Table 24, those respondents who "do not understand" are all located in the central and eastern terai and are either Bhojpuri or Maithali speakers.

Table 24: PERCENTAGE OF RADIO OWNERS IN EACH GEOGRAPHICAL AREA WHO DO NOT UNDERSTAND THE LANGUAGE OF RADIO NEPAL PROGRAMS

Far Western Hills 0%	Western Hills 0%	Central Hills 0%	Eastern Hills 0%
Far Western Terai 0%	Western Terai 0%	Central Terai 29%	Eastern Terai 16%

We are unfortunately not able to be more specific with regard to language comprehension. A more reliable measure of actual comprehension (as opposed to stated comprehension) must await a more detailed study into this question.

I. PROGRAM PREFERENCES

A number of inquiries were made into the specific listening patterns and preferences of the radio owners in the study's sample. Although the patterns and preferences with regard to Radio Nepal's programming were the focus of such inquiries, some information was also obtained with respect to listening to foreign stations and broadcasts.

1. Radio Nepal Programs

Each radio owner in the sample was asked, "What is your favorite radio program?" Other than a few individuals in the central terai who mentioned the Bamodh Program from Patna, nearly all respondents replied by naming one or more Radio Nepal programs. In fact, 58% reported one favorite program, 27% two, 10% three, and 5% four or more. The full results of this question are displayed in Table 25. They are expressed as the percentage of respondents in each area who indicated the specified program as being a "favorite." Although some inter-regional differences are apparent from the table, none are truly significant given the relatively small sample sizes for each geographical area. As the "Sungava," "Listener's Choice," "Music," and "Songs" responses are all based on the popularity of music, they have been grouped together under the general category of "Music" in Figure 6, which graphically displays the relative popularity of the six most often mentioned programs.

It must be heavily emphasized that this data does not represent the relative audience size for each of these programs. Many individuals may well listen to programs which they do not consider their "favorite," thus increasing audience size far beyond the figures indicated. This data relates only to relative program preferences, not to relative audience sizes.

Table 25: PERCENTAGE OF RADIO OWNERS INDICATING SPECIFIED RADIO PROGRAMS /AS THEIR "FAVORITE"

Program	Far Western		Western		Central		Eastern		National Sample (N=306)
	Hills N=87	Terai N=42	Hills N=28	Terai N=28	Hills N=30	Terai N=18	Hills N=54	Terai N=19	
News	81.6%	90.5%	64.3%	78.6%	100%	77.8%	85.2%	78.9%	82.8%
Agriculture Program	46.0%	54.8%	46.4%	82.1%	96.7%	38.9%	59.3%	89.5%	60.0%
Listener's Choice	51.7%	52.4%	21.4%	46.4%	6.7%	55.6%	9.3%	26.3%	35.2%
Rural Program	37.9%	40.5%	7.1%	10.7%	30.0%	0	11.1%	0	22.8%
Family Planning	21.8	26.2	14.3	3.6	16.7	0	16.7	5.3	16.6
Sungava	20.7	9.5	14.3	3.6	0	16.7	5.6	0	10.8
Songs	1.1	7.1	0	3.6	16.7	0	3.7	5.3	6.2
Education Program	1.1	0	7.1	3.6	0	0	9.3	0	2.9
Saturday Drama	3.4	2.4	0	0	0	11.1	1.9	0	2.3
Music	4.6	2.4	3.6	0	0	0	1.9	0	2.3
Commercial Service	3.4	0	0	3.6	0	0	1.9	5.3	2.0
Youth Program	2.3	0	0	7.1	0	0	1.9	0	1.6
Religious Program	3.4	0	0	7.1	0	0	0	0	1.6
Women's Program	3.4	0	3.6	0	0	0	0	0	1.3
External Service	0	2.4	3.6	0	0	1.9	5.3	0	1.3
Police Program	0	0	0	3.6	0	0	3.7	0	1.0
Bamodh Program(Patna)	0	0	0	0	0	11.1	0	0	0.7
Listener's Letters	0	0	0	0	0	0	1.9	0	0.3
Radio Report	0	0	0	0	0	0	1.9	0	0.3
Commentary	0	0	0	0	0	0	1.9	0	0.3
Panchayat Program	0	0	0	0	0	0	1.9	0	0.3
Army Program	0	0	3.6	0	0	0	0	0	0.3
Don't Know/No response	1.1%	0	0	0	0	0	1.9%	0	0.7%

(Percentages do not total 100 as some respondents stated more than one favorite program.)

It is quite possible to "hear a specific radio program, even a favorite one, yet not be listening attentively to it. It was a tentative hypothesis of this study that there would be some difference between an individual's favorite program and the program he listened to most attentively. It was further hypothesized that a lighter, less serious program (such as music or drama) would receive considerably lower ratings as "program listened to most attentively" than it did as "favorite program" while weightier, more serious programs (such as news, commentary, or agriculture) would receive more nearly equal ratings in both categories. In order to test this hypothesis as well as to determine the types of programs which listeners listen to most closely, each radio owner was asked, "Which programs on Radio Nepal do you listen to most attentively?"

Curiously, the data does not bear out the hypothesis. There is an unusually high degree of correspondence between the respondents' favorite programs and those they report listening to most attentively. Indeed, even though there is a clear linguistic difference between the two questions in both Nepali and English, when respondents were asked the second question, they not infrequently replied that they had already answered that question earlier in the interview when they had reported their favorite programs. Table 26 indicates the degree of correspondence between the percentage of respondents in the national sample who rated a program as a "favorite" and the percentage who rated it "listened to most attentively."

Table 26: PERCENTAGE OF RADIO OWNERS INDICATING SPECIFIED RADIO PROGRAMS AS "FAVORITE" AND AS "LISTENED TO MOST ATTENTIVELY" (N=306)

<u>Program</u>	<u>Percentage of Owners Who Rate the Program:</u>	
	<u>Favorite</u>	<u>Listened to Most Attentively</u>
News	82.8%	79.7%
Agriculture Program	60.0%	62.4%
Music	54.5%	51.0%
Rural Program	22.8%	2.3%
Family Planning Program	16.6%	19.3%
Education Program	2.9%	3.9%

Only one anomaly is apparent in this data. The Rural Program is listened to attentively by only 1/10 the number of respondents who rate it as a "favorite." We have no specific information as to why this may be so. One tentative hypothesis might be put forward, however, The Rural Program is broadcast from 6:00 to 7:00 every evening and is an umbrella program which contains other discrete and popular programs: agriculture, family planning, health, district news, music, and songs. It is conceivable that respondents, while rating the total program as a "favorite," listen to only certain parts of it "attentively" and thus did not mention it often in this category. Admittedly, however, such a hypothesis is very fragile.

At least 20% of broadcasting time on Radio Nepal is given over to music and songs of one type or another. Respondents were asked, therefore, to indicate their preferences among the types of music generally broadcast. The results are somewhat striking. Stated preferences fall decidedly into three categories: Nepali folk songs, Hindi film songs, and modern Nepali songs. All other types are preferred by less than 2% of the respondents.

Table 27: PERCENTAGE OF RADIO OWNERS INDICATING SPECIFIED MUSICAL PREFERENCES (N=306)

Type of Music	% of Owners Indicating Preference
Nepali folk songs	87.3%
Hindi film music	40.5%
Modern Nepali songs	25.5%
Classical Music	2.0%
Instrumental Music	1.6%
Western Music	1.0%
Religious Songs	0.7%
Not interested/No response	2.0%

(Percentages do not total 100 because some respondents reported more than one musical preference.)

The overwhelming preference for folk music in our sample (by better than 2:1 over Hindi film music and by better than 3:1 over modern Nepali songs) is of considerable importance. It directly contradicts assumptions which are commonly made, especially by the urban elite, regarding musical preferences of radio listeners.

2. Programs of Foreign Stations

The so-called "all transistor" multi-band radios which a majority of our sample owned are capable of picking up broadcasts from literally hundreds of stations in addition to Radio Nepal. All of these additional stations, however, are located in and sponsored by countries other than Nepal. It seemed important to us to know what kind of programs and which foreign stations our sample actually listened to.

The respondents were first asked, "In addition to Radio Nepal, do you also listen to other stations?" Of the national sample, 81% replied affirmatively, that they do listen to other stations; 17% indicated that they do not, and 2% provided no response. A considerably larger percentage of hill respondents (22%) denied listening to other stations than of terai respondents (only 10%). In the western, central, and eastern terai, taken as a single unit, less than 5% of the respondents indicated that they listen only to Radio Nepal. This greater propensity to listen to foreign stations may be explainable by the general cultural and economic similarities between the terai and neighboring India. If Radio Nepal's programs, however, are unconsciously biased toward the cultural, social, and economic interests of the hill people, the terai groups might thus find that some of their needs and interests are occasionally better met by other stations. We do not, however, have specific objective data to support this hypothesis.

The respondents were also asked to indicate the types of programs which they listened to on foreign stations. Music and news were named most often and Nepali Service broadcasts

(special Nepali language transmissions by foreign stations, were also mentioned by a considerable percentage of the sample. Both drama programs and the Patna Agriculture Program were mentioned by about 10% of the terai sample but received little mention among hill respondents. This may point to some of the interests of terai listeners which are not being fully met by Radio Nepal.

Table 28: PERCENTAGE OF RADIO OWNERS WHO LISTEN TO SPECIFIED PROGRAM TYPES ON FOREIGN STATIONS

Program Type	Hill Sample (N=199)	Terai Sample (N=107)	Nationwide (N=306)
Music	67%	80%	72%
News	55%	68%	59%
Nepali Service	35%	30%	33%
Drama	2%	14%	6%
Agriculture (Patna)	0%	9%	3%

(Percentages do not total 100 because some respondents reported listening to more than one kind of program on foreign stations.)

The respondents were then asked to indicate on which foreign stations they listened to each of the three most often indicated program types: music, news, and Nepali service. As indicated in Table 29 only two stations are generally listened to for music, All India Radio and Radio Ceylon. All India Radio is also listened to for news by more than one half the sample, while the BBC news broadcasts are listened to by nearly 20%. Slightly more than 1/3 of the radio owners listen to the Nepali service of All India Radio. Evidently none of the world broadcasting operations of the major world powers (the Soviet Union, China, the United States) have much of an audience within Nepal. There were no significant inter-regional differences with respect to this data.

Table 29: PERCENTAGE OF RADIO OWNERS WHO LISTEN TO SPECIFIED PROGRAM TYPES ON SPECIFIED FOREIGN STATIONS (N=306)

Foreign Stations	Music	News	Nepali Service
All India Radio	53.9%	55.9%	35.9%
Radio Ceylon	58.5%	2.3%	no program
BBC	0.7%	18.3%	0.7%
Voice of America	0.7%	2.6%	no program
Bangladesh	1.0%	0.3%	4.6%
Radio Moscow	0%	0.7%	0.7%
Radio Peking	0%	0.7%	no program
Australia	0.3%	0.3%	no program
Other stations	6.9%	2.0%	0.7%

(Percentages do not total 100 because some respondents listen to more than one foreign station.)

J. RADIO COVERAGE BEYOND OWNERS

Radio ownership is still quite uncommon in Nepal. As we have seen, only 1% of the population own a personal radio. This does not mean, however, that only 1% of the population has access to a radio or that only 1% of the people listen to radio. Each radio receiver may directly play to an audience much larger than to the owner himself. Also, through the person to person communication of information first learned from the radio, the eventual audience may be many times larger than the 1% figure. This study tried to obtain preliminary information which would delineate the coverage of radio beyond the owners themselves. The focus of investigation was not only on the non-owners who are a part of each radio's direct audience, but also on the extent to which information conveyed over the radio is communicated verbally by the listener to other individuals. A description of the results of this investigation is best described from two different perspectives: that of a person who owns a radio, and that of a person who does not.

1. From the Owners' Perspective

Each radio owner in the national sample was asked, "In addition to yourself, approximately how many persons usually listen to your radio?" Responses ranged all the way from three respondents who reported that no one else listened to their radio to one respondent in the eastern hills who said, somewhat ruefully, that the whole village listened to his radio. The mean number of additional listeners reported by the national sample was 5.05. That is, on the average, approximately six individuals, including the owner, listen to one radio. This data is very rudimentary, of course, because the actual number varies not only from respondent to respondent, but also from day to day or program to program for each respondent. The fact that considerable variation can be expected is shown by the figures for each geographical area shown in Table 30. The simplest hypothesis to explain these inter-regional variations is that respondents were unable to give an accurate average and thus "guesstimated" an answer. Obviously, from the variations indicated, the figure of 6 listeners per radio should not be taken as anything more than a very rough estimate.

Table 30: AVERAGE NUMBER OF LISTENERS PER RADIO AS REPORTED BY OWNERS IN EACH GEOGRAPHICAL AREA

Far Western Hills 4.58	Western Hills 4.92	Central Hills 10.50	Eastern Hills 7.29
Far Western Terai 4.93	Western Terai 7.04	Central Terai 3.81	Eastern Terai 5.61

Each radio owner was asked "Do villagers come to listen to any special radio programs?" This question was felt to be important in judging the listening habits of the non-owners: do they come to listen more or less haphazardly in their free moments or is there a greater degree of intent and planning in their choice to listen to the radio and in their

choice to listen to the radio and in their choice of programs? Of the 290 respondents to this question, 49% said "Yes," villagers do come to listen to special programs. Slightly more owners in the terai replied "Yes!" (58%) than owners in the hills (44%).

Each owner who replied in the affirmative was then asked, "What programs do they come to listen to?" News, the agriculture program, and music were mentioned most often. No other program was mentioned by more than 2% of the owners. A comparison of the data in Table 31 with that in Figure 6 shows that the listening preferences of both owners and non-owners (as perceived by the owners) are relatively similar.

Table 31: PERCENTAGE OF RADIO OWNERS REPORTING NON-OWNERS COMING TO LISTEN TO SPECIFIED PROGRAMS (N=306)

<u>Program</u>	<u>% of Owners Reporting</u>
News	34%
Agriculture Program	18%
Music	18%
All Others	3%

There was little significant inter-regional variation in these figures with the exception of those for the agriculture program. Among terai radio owners, 31% reported villagers coming specifically to listen to the agriculture program, while only 11% of the hill owners reported this.

Beyond the direct transmissions of the radio, owners were asked if they told their own family, friends, or villagers about information which they heard on the radio. Of the sample of 306 owners, 81% said "Yes," they did, 18% said "No" and 1% did not respond to the question. There were no significant inter-regional variations in this data.

Those respondents who answered that they did communicate information heard on the radio to other individuals were

subsequently asked what kind of information they communicated. The responses to this question were coded against a number of categories and are displayed in Table 32. "Special Announcements" ("Bishesh Suchhana" and "Abashek Suchhana" in Nepali) is a separate category of unscheduled news or announcements on Radio Nepal, not unlike the "News Flashes" of American broadcasting. They often concern visits of His Majesty to rural areas, land reform announcements, cabinet changes, new tax laws etc. In addition, this category includes the scheduled messages delivered by His Majesty the King. "News Information" is a category used to designate interesting, unusual, or important new events, generally of a global nature. These would include moon landings, wars, major changes in world leadership, the first heart transplant, and the like.

Table 32: PERCENTAGE OF RADIO OWNERS WHO REPORT COMMUNICATING TO OTHERS SPECIFIED TYPES OF INFORMATION HEARD OVER THE RADIO (N=306)

<u>Type of Information</u>	<u>% of Owners Reporting</u>
Special Announcements	61%
Governmental Information	33%
Agricultural Information	31%
Development Program Information	21%
News Information	7%
Family Planning Information	1%
Others	2%

Of all the information gathered by the survey, the preceding, dealing with the secondary spread of information broadcast on the radio, seems to confirm most clearly the function of radio as a national communications medium of importance for Nepal. 81% of the owners in our sample report that they tell others about information heard on the radio. And, for the most part, the kind of information thus communicated generally deals with Nepal as a nation, in contrast to the essentially isolated and relatively autonomous character of the villages in which the owners themselves reside.

Equally interesting is the apparent secondary dissemination of agricultural information beyond radio listeners. Most extension activities probably depend upon secondary dissemination of information for mass impact. The tentative indication that this is taking place with broadcast information in agriculture is a preliminary sign that radio can, in fact, be an important tool to speed development and modernization.

In addition to the data gathered through interviews, our project personnel have directly observed a number of instances where specific radio owners have intentionally directed radio programs to a wider audience. In a restaurant in Illam, for example, the radio is broadcast through a small loudspeaker for customers and others. Our researcher observed that 20 and sometimes more individuals gathered at this restaurant to listen to the News, usually the 7:00 A.M. and 7:30 P.M. broadcasts. In Terathum Bazar a radio is broadcast through a loudspeaker for the townsfolk. A Pradhan Pancha in a small village on a hillside in Gandaki Zone, whose home is near the top of the hillside, turns his Panchayat radio up at full volume during News time and places it on an elevated platform facing the village which spreads out below. A library run by a group of individuals for the public in the terai section of Janakpur Zone had a radio until recently. A loudspeaker was placed atop the roof of the three story library and the radio news was broadcast to the surrounding area. Unfortunately, the radio broke and the library has not yet been able to get it fixed.

These instances also support the view that radio is not just a potential mass communications device, but that it is already beginning to realize that potential.

2. From the Non-Owners' Perspective

The 153 non-owners in the national sample were also consulted in order to obtain first hand information regarding the ways in which radios is a communicating device that penetrates beyond those who possess receivers.

These non-owners were first asked, "Do you listen to the radio?" Their answers were coded against the terms "daily," "2 to 4 times per week," "2 to 4 times per month," and "never." The resulting data is displayed in Table 33. More than half of the non-owners in the sample listen to the radio twice a week or even more often. Although 14% report that they "never" listen to a radio, our interviewers have pointed out that "never" should probably be read as "rarely" or "very rarely" since in their field experience they observed that very few individuals literally never listen to a radio.

Table 33: PERCENTAGE OF NON-OWNERS WHO REPORT LISTENING TO A RADIO WITH A SPECIFIED REGULARITY (N=153)

<u>Regularity</u>	<u>% Of Respondents</u>
Daily	14%
2-4 times per week	42%
2-4 times per month	30%
Never	14%

There is no significant inter-regional variation in this data.

The non-owner listeners were asked what time of day they usually listened to the radio: morning, afternoon, or evening. The responses which they gave generally paralleled those given by radio owners. The largest number of non-owners claimed to listen in the evening hours, the second largest in the morning, and the fewest in the afternoon, as shown in Table 34.

Table 34: PERCENTAGE OF NON-OWNERS WHO REPORT LISTENING TO THE RADIO IN THE MORNING, AFTERNOON, AND EVENING (N=153)

<u>Time of Day</u>	<u>% of Respondents</u>
Morning	39%
Afternoon	16%
Evening	56%
Indeterminant Times	5%

Non-owner listeners were also asked to indicate where they generally listen to a radio. Nearly equal numbers reported that they listen in a shop or that they listen in a friend's house. Considerably smaller numbers report listening in other places.

Table 35: PERCENTAGE OF NON-OWNERS WHO LISTEN TO THE RADIO IN SPECIFIED LOCATIONS (N=153)

<u>Location</u>	<u>% of Respondents</u>
At a shop	39.2%
At a friend's house	37.9%
At a relative's house	9.2%
At the panchayat office	3.3%
At a neighbor's house	2.6%
All other specific locations	3.9%
No specific location	6.5%
Do not listen	13.7%

In order to determine the degree of intent in listening to a radio, non-owners who listen were asked if they went to or searched out a radio in order to hear specific programs. Of the 153 in the sample, 50.3% replied "Yes," they do go to radios in order to hear specific programs, 35.9% replied "No," they do not, and 13.7% do not listen in any case. If our sample is at all representative of the national population in this respect, and we believe it is, then this is not an unimportant finding: approximately one half of the non-owners report that they go to or search out a radio in order to hear specific programs!

Those non-owners who replied that they do indeed go to or search out a radio to hear specific programs were subsequently asked what programs they go to hear. Their responses, detailed in Table 36, indicate a pattern of interests not unlike that which owners report for themselves (Figure 6) or which the owners attribute to the non-owner (Table 31). News is of the greatest interest while music and the agri-

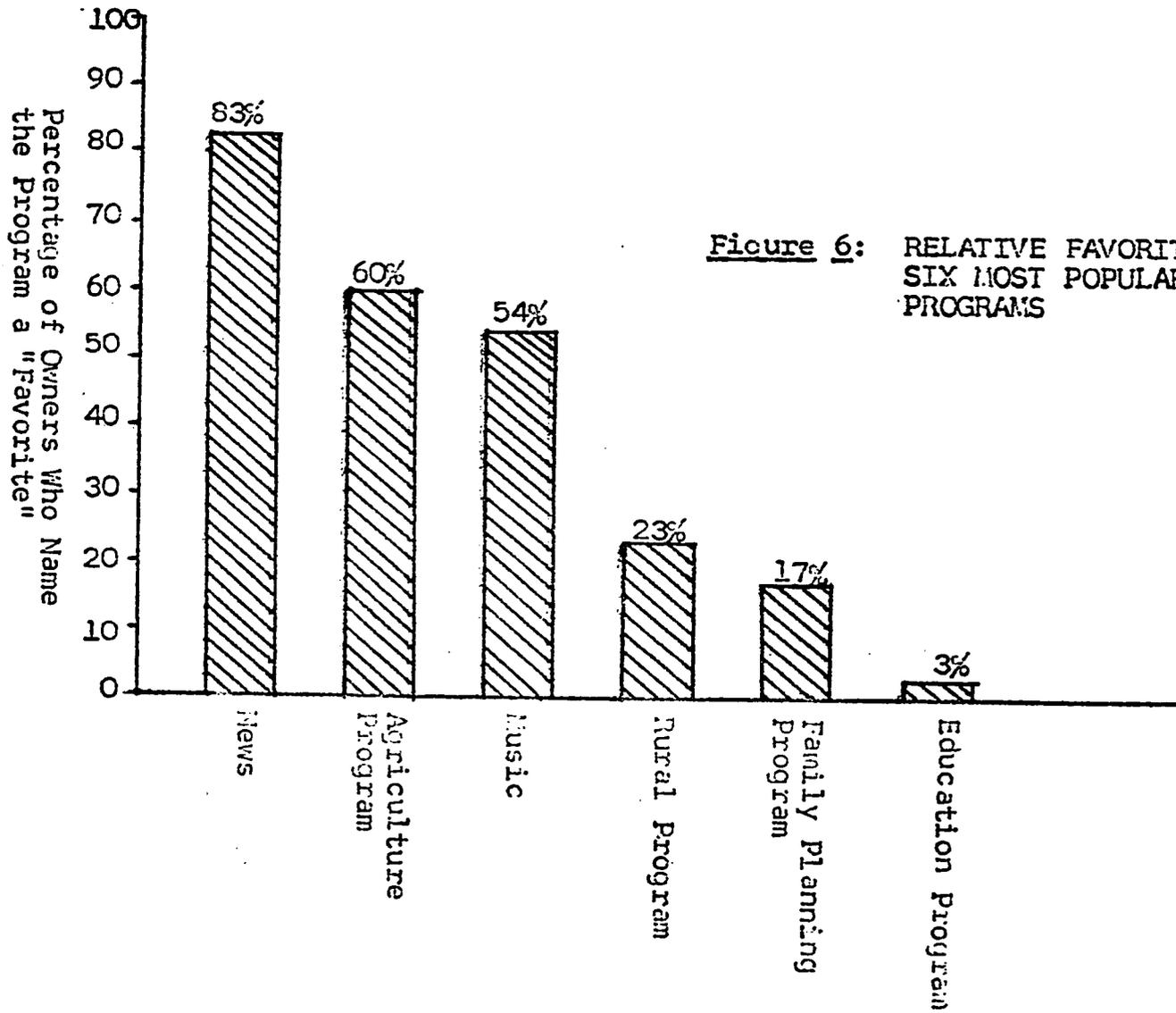


Figure 6: RELATIVE FAVORITES AMONG THE SIX MOST POPULAR RADIO NEPAL PROGRAMS

culture program are of nearly equal interest. Other programs receive little mention.

Table 36: PERCENTAGE OF NON-OWNERS WHO REPORT SEARCHING OUT A RADIO TO LISTEN TO SPECIFIED PROGRAMS (N=153)

<u>Program:</u>	<u>% of Respondents</u>
News	41.8%
Music	15.0%
Agriculture Program	13.7%
Education Program	1.3%
Family Planning Program	0.7%
All Others	2.6%

In summary, the data which has been developed from our sample has begun to sketch an interesting profile of the radio listening patterns of the great majority of Nepalis, those who do not own their own radio. It appears that a large percentage listen to the radio, a majority listen at least twice a week, and approximately one half search out radios with the intent of listening to specific programs which, more often than not, are informative in nature (such as news and agriculture programs). While some non-owners never listen to a radio, and while some undoubtedly listen now and again when they occasionally find themselves in the presence of a playing radio, a substantial proportion make the time to listen regularly to programs of an informative nature.

IV. INFORMATION ON EDUCATIONAL AND SERVICE PROGRAMS

One of the objectives of this study was "to determine if certain educational programs on Radio Nepal are listened to and with what frequency and to determine the effect of these programs on listeners' knowledge, attitudes, and behavior." Three programs were selected to be investigated in this regard: the Agriculture Program, the Family Planning Program, and the Women's Program. The results of this investigation, as well as brief descriptions of other educational and service programs broadcast by Radio Nepal, are included in this section of the report.

We sought a rough indication of the effect of these programs on the listeners. Anything more than very tentative conclusions, however, has not been possible. Learning and behavior change processes are very complex. An individual learns about things from a variety of sources and other personal and external factors, in addition to exposure, are important in determining if an individual actually incorporates learning into behavior change. In this preliminary survey, it has been impossible to isolate the effect of radio from other sources of influence and learning. Nevertheless, the intent of these radio programs is clearly to change the listener's behavior. And, for the agriculture program, at least, there are some clear indications that it is succeeding. More precise and detailed information in this regard, however, can only be obtained through an intensive communications study that can scientifically isolate the various factors and determine the cause and effect relationships that exist.

A. AGRICULTURE PROGRAM

1. Descriptive Information

"Krishakharu Ka lagi Karyakram" (Program for Agriculturists) is the second most popular program broadcast on Radio Nepal according to our sample of radio owners. The Agriculture Information Section of the Department of Agriculture began broadcasting the program over Radio Nepal on December 5, 1966. The initial twice a week format was expanded to thrice a week in 1968. Beginning July 16, 1973, the program has been broadcast from 6:45 P.M. to 7:00 P.M. four days per week (Sunday, Monday, Tuesday, Friday) as one component of the Rural Program.

On Sunday evenings the program format consists of an interview with a farmer, agriculturist, bank officer, agriculture marketing specialist, district agriculture officer or other specialist. The interview focuses on specific topics of interest to farmers. In addition, 3 minutes of agricultural news and 4 minutes of folk songs are broadcast.

On Monday evenings, a program titled "Chyante's Experience" is broadcast. Chyante is the name of a fictional progressive farmer and he relates his personal experience using modern farming methods and materials and how he and his farm have benefitted as a result. In addition to a few minutes of agricultural news, the program is brought to a close by "Your Question and Chyante's Answer" in which Chyante answers agricultural questions mailed in by listeners.

On Tuesday evenings, the program format is a family drama entitled "Farming According to Climate." During the family drama, the various family members discuss specific activities (such as paddy planting, wheat harvesting, preparation of seasonal vegetables) in which the listening farmers will actually be engaged within the following 15 days. At the end of the drama, a few new facts about farming are presented by a progressive farmer or JTA (Junior Technical Assistant - the title of an agriculture extension agent).

On Friday evenings the program "Budhi Ama ra JTA" (the JTA and the Old Woman) is presented. The program consists of a dialogue between the JTA, who is on his way to a village, and the old woman, who meets him along the trail. The old woman is highly inquisitive and interested in modern farming and quizzes the JTA about his extension work. In reply, he discusses technical aspects of agriculture that are relevant to that season of the year. In addition, three minutes of general information and advice on agricultural practices are presented at the beginning of the program.

The target audience of this program is all of the individuals actively engaged in farming throughout the country, i.e., the great majority of Nepal's population. We have already seen that it is very successful in reaching those farmers who own radios as well as some who do not.

The Agriculture Information Section has made plans to conduct a pilot survey of the impact of their program on farming practices. As yet, however, the survey data are not available. The contents of the 15 or so letters received from listeners each week are used as a guide and basis for informal evaluation. Additional informal feedback is provided by other agricultural agencies and offices, which report that farmers who come to them for loans, advice, and agricultural inputs report that their source of information was the Agriculture Program.

2. Basic Survey Data

The radio owners in the national sample were asked if they listened to the Agriculture Program. Their responses were coded against the terms "almost always," "sometimes," and "never." Of the 297 who responded, 57% said they listened "almost always," 30% replied "sometimes," and 13% replied "never." There were considerable inter-regional variations in the response pattern, however. These variations are shown in Table 37.

Table 37: PERCENTAGE OF RADIO OWNERS WHO LISTEN TO THE AGRICULTURE PROGRAM WITH SPECIFIED REGULARITY, BY GEOGRAPHICAL AREA

	Far Western Hills	Western Hills	Central Hills	Eastern Hills
Almost Always	43%	64%	97%	67%
Sometimes	43%	32%	0%	30%
Never	15%	4%	3%	4%
	Far Western Terai	Western Terai	Central Terai	Eastern Terai
Almost Always	41%	86%	6%	53%
Sometimes	46%	14%	18%	26%
Never	12%	0%	76%	21%

The percentage of respondents replying "almost always" or "sometimes" is 96% or higher in the eastern, central and western hills and western terai. In the far western areas and the eastern and central terai, it is lower. Similarly, less than 50% of the respondents replied "almost always" in only the far western areas and the central terai; only 53% so replied in the eastern terai. This information reinforces previous data which seemed to indicate that the far western areas and central-eastern terai areas constitute "special cases" of listening habits within the country.

Those respondents who replied "almost always" were then asked why they listened to the program so often. Nearly 3/4 (74%) replied with matchless simplicity and directness that they listened because they were farmers, 29% reported that they listened because the program was "practical," 23% that it was useful, and 4% that it was entertaining. (A slight translation difficulty exists here between "practical" and "useful." In Nepali, "practical" implies farming techniques that can actually be implemented on a farmer's fields. "Useful" means information complementary to field work, for example, agriculture credit, purchasing depots for inputs, plant quarantine procedures and the like.) Note that the percentages do not add to 100 as some respondents provided more than one reason.

The most prevalent reason, "Because I am a farmer," for all its directness leaves certain concerns unanswered, namely, is the program of any use. Pursuing this question at the conclusion of one interview, our researcher queried, "You are a farmer, but is it really necessary for you to listen to the Agriculture Program?"

The farmer replied "Yes, I must."

The researcher then asked, "But why? I am the son of a farmer and listen only infrequently to the program, and even then only for entertainment."

The respondent answered, "You are the son of a farmer, but your father is in the fields. Go and ask your father. He must listen to it."

The conclusion we draw from this instance, from the data, and from the experiences of the other interviewers is simply that the information - or at least some of the information - given on the Agriculture Program is useful, practical, and important to practicing farmers. Individuals who depend for their livelihood, and lives, upon agriculture listen to the program. This is offered as the most direct explanation of the wide popularity the program enjoys.

Individuals who replied that they listened to the Agriculture Program only "sometimes" or "never" were also asked, "Why?" The results of this question are listed in Table 38.

Table 38: PERCENTAGE OF RADIO OWNERS WHO "SOMETIMES" OR "NEVER" LISTEN TO THE AGRICULTURE PROGRAM WHO GIVE SPECIFIED REASONS FOR NOT LISTENING MORE OFTEN (N=128)

<u>Reason</u>	<u>% of Respondents</u>
No time to listen	32%
I am not a farmer	27%
Don't understand language	16%
Not interested	8%
Information is impractical	5%
Information is for terai only	4%
Not broadcast at convenient time	3%
All other reasons	10%

(Percentages do not total 100 as some respondents gave more than one reason.)

When looked at on a region-by-region basis, however, the responses to this question begin to provide some insights into the inter-regional variations in listening regularity pointed out in Table 37. For example, all respondents replying that they do not listen more often because "information is impractical" or "information is for the terai only" are from the Far Western Region. This would seem to indicate that the farmers in the far west (especially in the hills) do not feel that the information broadcast on the program is relevant to their agricultural conditions, which are somewhat different from the rest of the country in climate, crops, and availability of inputs. Also, of the 25 individuals who listen only "sometimes" or "never" in the eastern and central terai, 15 (fully 60%) report that the reason is that they do not understand the language of the program. Thus, the linguistic differences of the central and eastern terai are again found to have a major impact on radio listening patterns there.

The respondents were all asked to indicate which of the four programs they found most useful: Sunday's interview format, Monday's "Chyante's Experience," Tuesday's family drama, or Friday's "The JTA and the Old Woman." A summary of the replies is given in Table 39.

Table 39: PERCENTAGE OF RADIO OWNERS WHO INDICATE SPECIFIED AGRICULTURE PROGRAM FORMATS AS MOST USEFUL (N=297)

<u>Format</u>	<u>% of Respondents</u>
Sunday: interviews	13%
Monday: Chyante's Experience	21%
Tuesday: Family drama	14%
Friday: JTA and the Old Woman	54%
Don't know	10%
Never listen to any	13%

(Percentages do not total 100 as some respondents listed more than one format as most useful.)

The wide popularity of "The JTA and the Old Woman" in comparison to the other formats of the Agriculture Program is one of the most interesting findings of the survey. Except for the inter-regional differences in listening regularity, there are no significant variations in the relative popularity of the formats.

We have accepted the simplistic hypothesis that the Agriculture Program, in its totality, is popular because it addresses itself to activities and information of interest to the large majority of Nepalis, the rural farmers. Such an hypothesis does not explain the wide differences in popularity between formats presenting similar information. While the respondents have indicated that "the JTA and the Old Woman" provides the most useful information, we cannot avoid suggesting that its popularity may also be based on its unique format. We identify several elements in this regard.

First, "the JTA and the Old Woman" is a highly discrete, unique, identifiable program with its own "personality." Secondly, it has been broadcast for over three years and has become a familiar feature in the radio "landscape." Listeners have grown to know and enjoy the characters as radio and television fans throughout the world "know" the characters in their favorite serials. Thirdly, there is a complete predictability about the format from program to program, just as in the radio situational dramas in the 1930's and 40's in the United States.

as in present television favorites in most countries and, indeed, as in Hindi films. The Old Woman is sitting on the chautara hailing the JTA at the beginning of each program, "Hey, Babu ! Come here for a minute, I want to ask you something." "Hey, where are you going today, JTA-Babu? Stop for a minute and talk," Lastly, and perhaps most importantly, the Old Woman is a readily identifiable character all over Nepal. Every village has at least one. Too old to do much work, chatty, inquisitive, gossipy, garrulous, talking to passers-by and friends she is an individual that everyone in Nepal does indeed know. In the minds of listeners, she probably provides that crucial link between the known reality of rural villages, the mysterious medium of radio, and modern agricultural practices.

The respondents were also asked, "Do you understand the language of the Agriculture Program?" Of 252 responses elicited, 82% were "I understand," 14% were "I understand some" and 4% were "I don't understand." The resulting data are so similar to that presented more generally in Section III. H, that the inter-regional variations and analysis will not be presented again here.

Listeners were also asked what would be the most convenient time of day for them to listen to the Agriculture Program. Of the 259 respondents, 69% indicated that the present time (6:45 P.M. to 7:00 P.M.) is fine, 17% indicated that sometime between 7:00 P.M. and 8:00 P.M. would be convenient, 13% would agree to a time between 8:00 P.M. and 9:00 P.M., and another 12% indicated a smattering of other times. All morning hours taken together were mentioned by only 7% of the respondents. Afternoon hours were mentioned by only 2%.

3. Use of Broadcast Information

As indicated previously, it was not possible for this preliminary study to determine, in any definitive way, whether radio educational programs have actually changed the behavior of listeners. Too many variables affect behavior change. Yet, through a number of questions, we did try to achieve a rough gauge on the extent to which information heard by listeners to the agriculture program is actually used by them in their agricultural activities. To the respondents who had answered "almost always" or "sometimes" to whether they listen to the Agriculture Program, we asked, "Have you used on your own fields the things learned after listening to the Agriculture Program?" Of the full sample of 259 respondents, 65% answered "Yes," 27% replied "No," 2% replied that they had no land, and 6% did not respond. This high positive response rate is quite surprising! Even more surprising is that it is much higher when the respondents in the Far Western Region are removed from the sample. For the far western hills and terai taken together, the percentage of positive responses is only 41%; for the other six regions, (i.e., the rest of the country) fully 81% of the respondents replied "Yes." No other significant inter-regional differences were found. Those who replied "Yes," that they had implemented things heard on the radio, were then asked "What things did you use and how?" The results are broken down by hill respondents and terai respondents and are listed in Table 40.

Table 40: PERCENTAGE OF RADIO OWNERS USING BROADCAST AGRICULTURAL PRACTICES WHO REPORT USING SPECIFIED PRACTICES ON THEIR FARMS

Practice	% of Respondents Who Use		
	Hill Respondents (N=119)	Terai Respondents (N=50)	National Sample (N=169)
Chemical Fertilizers	55%	36%	49%
Pesticides	40%	38%	39%
Improved Paddy	21%	72%	36%
Compost Manure	44%	10%	34%
Improved Wheat	18%	68%	33%
Improved Seeds	21%	48%	29%
Improved Maize	32%	24%	29%
Vegetable Farming	23%	26%	24%
Fruit Farming	18%	10%	15%
Poultry	6%	12%	8%
Improved Tools	1%	20%	7%
Fisheries	2%	6%	3%
All Others together	2%	6%	3%

(Percentages do not total 100 as 81% of the respondents indicated that they are applying 2 or more practices on their farms.)

There are a number of significant inter-regional differences which should be pointed out. Fertilizer, whether chemical or compost manure, has been adopted by hill respondents more readily than by terai respondents. On the other hand, improved paddy, wheat, and other seeds have received considerably more widespread use among respondents in the terai than among those in the hills. These variations tend to reflect general differences in agricultural practices between hills and terai. One significant difference between Development Regions was found in the data: compost manure was mentioned by only 7% of the respondents in the far western hills and terai, but was mentioned by 40% throughout the rest of the country.

These statistics deserve some discussion, for they seem to indicate an extremely high rate of incorporation of modern

agricultural practices into traditional farming. First, it must be emphasized that our total sample population is that of radio owners, not farmers in general. Radio owners are a decidedly small fraction of the rural, farm population, probably 1% or less, and are far above national norms in wealth and, most likely, in formal education as well. Even within this elite group of radio owning farmers, no one modern technique has been adopted by more than 50%. In addition, no definitive cause and effect connection has been made between radio listening and implementation of modern farming methods. It is even possible that the cause and effect relationship exists in the other direction, that is, that modern practices result in greater cash income which in turn result in radio purchase and listening patterns. More likely, however, both radio ownership and listening and implementation of modern agricultural practices are the visible effects of the same cause: personal and financial security coupled with a willingness to innovate. Thus, speculation regarding cause and effect is not answered by the data presented above.

Secondly, farmers obviously receive farming information and instruction from a wide variety of sources: fathers and brothers, friends, the local JTA, booklets, trips to research farms and agricultural offices, cooperatives, and the like. It is probable that no one source is responsible for convincing a farmer to implement a given practice, rather, it is much more likely that it is the cumulative impact of all sources which finally overwhelms a farmer's conservative nature and prods him to try out a specific innovation in his fields. The problem of determining what medium actually causes changed behavior is compounded by the fact that several sources (the radio, posters, the local JTA, agricultural offices, etc.) have been purposely orchestrated to advocate the same practices.

In an attempt to determine at least the gross categories of information and instruction a farmer uses, interviewers asked respondents, both owners and non-owners, what their sources of agricultural information were. This question was asked prior

to the administration of the radio-related questions in the instruments, so respondents did not know the intent of the question and could not have mentioned the radio in order to "please" the interviewer. The results, shown in Table 41, tend to confirm that radio is an important source of information among radio owners.

Among non-owners, friends and other farmers play a greater information dispensing role than among owners. For both groups however, the JTA is the most often mentioned source of agricultural information. It appears, therefore, that information broadcast on radio (which is centrally programmable) displaces information communicated by farmers and friends (which is not centrally programmable) among radio owners.

Table 41: PERCENTAGE OF RADIO OWNERS AND NON-OWNERS WHO OBTAIN AGRICULTURAL INFORMATION FROM SPECIFIED SOURCES

Source	% of Radio Owners (N=266)	% of Non-Owners (N=131)
JTA (extension agent)	50.4%	40.5%
Radio	41.0%	16.0%
Friends & other farmers	20.3%	35.1%
District Agriculture Development Office	6.4%	8.4%
Pamphlets	1.5%	3.8%
Research Farms	0.4%	2.3%

(Percentages do not total 100 because some respondents cited more than one source of agricultural information.)

Neither this information, nor the information in Table 40, nor the previously discussed high popularity of the Agriculture Program among both radio owners and non-owners, conclusively proves that broadcast agricultural information actually changes behavior patterns of listeners. Nevertheless, the overwhelming weight of the evidence argues persuasively that radio does play a significant, although unmeasured, role in such change.

As a final note, we asked those respondents who replied "No" that they have not used information heard on the radio in their farming, "Why didn't you use these things?" Of the 71 respondents, over $\frac{1}{2}$ replied that they did not have sufficient money and most other responses indicated that either the necessary inputs were not available or not available on time. ("Not available" implies that the inputs simply cannot be procured in the respondent's locality; "not available on time" implies that the inputs were available, but not when needed in the agricultural cycle.) Because the bulk of the respondents asked this question were from the Far Western Region, the data in Table 42 has been broken down into three groups: far western hills, far western terai, and the remainder of the country. It would seem from the information in that table, that the lack of money (credit, loans) and the lack of necessary agricultural inputs in the far western hills are, among our sample, at least, major reasons why new practices have not been implemented. This may also help to explain the lower popularity of the Agriculture Program in the Far Western Region (See Table 37).

Table 42: PERCENTAGE OF RESPONDENTS NOT USING BROADCAST AGRICULTURAL INFORMATION WHO CITE SPECIFIED REASONS FOR NOT DOING SO

Reason	Far Western Hills (N=29)	Far Western Terai (N=20)	Rest of Country (N=22)
No money	45%	25%	9%
Fertilizer not available on time	38%	5%	5%
Fertilizer not available	24%	0%	0%
Seeds not available on time	34%	10%	0%
Seeds not available	24%	0%	0%
Pesticides not available	31%	5%	0%
Tools not available	17%	5%	5%
I don't want to do it	3%	15%	14%
Not enough land	7%	10%	14%
Old fashioned father	0%	0%	14%
Other, miscellaneous reasons	24%	40%	55%
No response	10%	15%	9%

(Percentages do not total 100 as some respondents cited more than one reason).

B. FAMILY PLANNING PROGRAM

1. Descriptive Information

In point of fact, there is not one family planning program; there are two. Although both are broadcast as part of the evening Rural Program, each retains its own separate identity. As both deal with the same subject and as they are probably not perceived as very different by most listeners, however, they have been grouped together as the Family Planning Program for the purpose of this study.

The Maternal & Child Health/Family Planning Project of the Ministry of Health sponsors the Wednesday evening family planning program from 6:45 P.M. to 7:00 P.M. (When necessary for identification, this has been labeled Program (A) in this report.) This program was first broadcast as part of the Women's Program beginning in July, 1972. It has since become a part of the evening Rural Program. The format of the program varies but drama, music, general talk, songs, interviews, and question-answer formats are most popular. The focus of the program, however, is not limited to family planning. The sponsoring agency strongly believes that only a reduction in child mortality will bring about the necessary change in attitudes to cause broad acceptance of family planning. For this reason, the main focus of the program content is the health of mothers and children and the target audience is the mothers themselves. Communication of specific family planning information is a secondary or, at best, equal objective. The sponsoring agency has conducted an "evaluation" of the broadcast in the Pokhara town panchayat. In addition, letters written by listeners are used as a basis for planning future programs. The program is actually produced in the studios of Radio Nepal.

The Nepal Family Planning Association, a non-governmental organization, sponsors the Saturday program, which is also broadcast as part of the Rural Program from 6:45 P.M. to 7:00 P.M. (This program has been labeled Program (B) elsewhere in

this report.) The Association's program is considerably older than that of the Ministry of Health, having first been broadcast in 1964. The formats used for the program are similar to those of Program (A), but the content is generally quite different. The target audience is the public at large, especially married couples and boys and girls of marriagable age and the objective is to inform and motivate this audience regarding family planning. Content usually focuses on the reasons and philosophy behind family planning and descriptions of various family planning and contraceptive methods. The Association has performed an "evaluative" survey covering 31 villages in 17 districts. In addition, they too rely on letters from listeners to help guide future program plans. This program is also produced in Radio Nepal's studios.

In addition to the programs, both agencies sponsor spot announcements or songs related to family planning on the Commercial Service of Radio Nepal.

2. Survey Data

Each radio owner in the national sample was asked, "Do you listen to the Family Planning Program?" and the answers were coded against the terms "almost always," "sometimes," and "never." Of the 287 responses, 29% were "almost always," 53% were "sometimes," and only 18% were "never." Once again, the central and eastern terai regions produced significantly different results from the remainder of the country. This is shown in Table 43. The propensity to listen to the Family Planning broadcasts appears to be very low in the central and eastern terai when compared to the remainder of the country.

Table 43: PERCENTAGE OF RESPONDENTS WHO LISTEN TO THE FAMILY PLANNING PROGRAM WITH A SPECIFIED REGULARITY

Regularity	% in Central and Eastern Terai (N=35)	% in Remainder of Country (N=252)	National Sample (N=287)
Almost always	6%	32%	29%
Sometimes	40%	55%	53%
Never	54%	13%	18%

Those respondents who replied that they listened to the Family Planning Program only "sometimes" or "never" were then asked why they did not listen more often. The results are presented in Table 44.

Table 44: PERCENTAGE OF RADIO OWNERS WHO "SOMETIMES" OR "NEVER" LISTEN TO THE FAMILY PLANNING PROGRAM WHO GIVE SPECIFIED REASONS FOR NOT LISTENING MORE OFTEN (N=204)

<u>Reason</u>	<u>% of Respondents</u>
No time to listen	50%
Not interested in family planning	23%
Not useful to me	15%
Don't understand the language	8%
Don't believe in family planning	3%
All other reasons	8%

(Percentages do not total 100 as some respondents cited more than one reason.)

The most often cited reason, not having time to listen, is most probably a "cover" for other reasons such as insufficient interest or philosophical opposition. This program is broadcast at exactly the same time of day as the Agriculture Program; for Family Planning. 103 respondents claimed no time to listen, while for the Agriculture Program only 41 respondents made that claim. Future research into listening patterns should try to break through this stated reason to find the real reasons why some owners do not listen to

specified programs. There are no significant inter-regional variations in this data with, once again, the exception of the fact the great majority of the respondents who indicated that they did not understand the language of the program were in the central and eastern terai.

It was, of course, impossible to ask direct questions like "Have you used on your own fields the things learned after listening to the Agriculture Program? What things did you use and how?" In fact, the topic of personal use of contraceptives was deemed too sensitive to discuss at all in a short interview if spurious answers were to be avoided. Instead, an attempt was made to measure attitudes toward family size. The question which was asked was "How many children do you want your son to have? More than you, the same number as you, or less than you?" Unfortunately, however, this question suffered from a number of severe defects in administration and analysis and the results are, therefore, not presented here. For the record, however, these defects should be mentioned. First, because of personal and cultural sensitivities, it was an inappropriate question to ask those respondents who had no children and even those who had only daughters. Secondly, the question was accidentally deleted from the "Interview Schedule for Non-Owners," so comparison between the two groups was impossible. Thirdly, without specific numbers of children as a reply, it was impossible to determine if the overall attitudes would theoretically produce a different birth rate than that which is the current norm either among our respondents or in the nation as a whole.

In order to determine if radio was, indeed, an important source of information regarding family planning among radio owners, each owner in the sample was asked, "Where did you first come to know about family planning?" As indicated in Table 45, radio was mentioned more than any other medium as the first source of family planning information.

Table 45: PERCENTAGE OF RADIO OWNERS WHO INDICATED THEY FIRST RECEIVED FAMILY PLANNING INFORMATION FROM SPECIFIED SOURCES (N=306)

<u>First Source of Information</u>	<u>% of Respondents</u>
Radio	37%
Posters	17%
Friends	17%
Family Planning Worker	15%
In India	14%
Newspapers	3%
Mobile Teams	2%
Pradhan Pancha	1%
Health Centre	1%
All other sources	2%
No response/don't know	11%

(Percentages do not total 100 as some respondents cited more than one first source.)

Two inter-regional differences in this information should be pointed out. First, all those respondents who indicated that they first heard of family planning "in India" were in the Far Western Region. In fact, 39% of the respondents in the far western hills and 21% of the respondents in the far western terai indicated India as their first source of information. This may be explained by the fact that a considerable percentage of our sample in that area resided within a day of Nepal's western border with India. (On the other hand, this response was offered by none of the respondents who live along Nepal's southern border with India.) Secondly, the two organized attempts to reach people with information on a person-to-person basis were mentioned considerably more often in the terai than in the hills. Taken together, the family planning worker and the mobile teams were mentioned as the first source of family planning information by 30% of the terai respondents but by only 11% of the hill respondents. This difference presumably reflects the posting and mobility of workers.

In order to probe a little more deeply into attitudes toward family planning and the Family Planning Program broadcasts, two open-ended questions were asked and the interviewers were instructed to transcribe the responses in a verbatim manner. It was expected that the open-ended questions would allow for non-committal answers among those who were unwilling to discuss the topic while others could be as specific as they desired. This did occur, in fact; the majority of respondents replied monosyllabically, often with the redoubtable Nepali "Thik chha," (it's okay). Such a response can mean it really is okay, or it can mean that the respondent doesn't want to talk about it, or it can mean that he doesn't know what family planning is, or it can mean that he is opposed to family planning but won't discuss it with a stranger, or it can mean one of a thousand other things. For this reason we have not made any attempt to code and analyze the answers to these questions; we simply present representative quotations from those respondents who were willing to be more than laconic.

The first question was, "Now-a-days in many places there is a lot of talk about family planning, but how is it for our village and for us?" Responses tended to link family planning with the family or national economy in some way. They included:

- "Prices have gone up in the country due to population increase. Family planning is necessary to check high prices;"
- "It [family planning] is useful because in this time of price increases it will be difficult to live if the population also increases;"
- "It [family planning] is good because consumer goods are not in great enough supply to meet day to day needs;"
- "Family planning is necessary because in a small family expenses are lower and a good education, clothing, and nutritious food can be provided to the children. People say that a small family can create problems in household work, but this problem can be solved with the help of village people;"
- "A small family is good in order to give a good education and nutritious food to the children;"