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FEMALE ICF (IRNR) GRADUATES"

21

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Synopses of  
IRNR Female Candidate Survey  
conducted by  
National Research Associates, Kathmandu  
for  
SECID/RCUP/IRNR, 1983

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Female IOF (IRNR) Graduates

# IRNR FEMALE CANDIDATE SURVEY

## I. BACKGROUND & METHODOLOGY

### BACKGROUND

If one attempts to trace the history of higher education among women the world over, he or she will find that women in significant numbers have started pursuing higher education in different disciplines only since the 1950's. The progress of Nepalese women in this aspect, in particular, has also been understandably slow. Apparently it was only in 1947 when the first female student was enrolled in an institution of higher education in Nepal.

About 49 percent of Nepal's population are women. Most of these women are directly engaged in agriculture. If Nepal is to achieve rapid economic development, it is of utmost importance to enhance women's potential in contributing to various development programmes.

His Majesty's Government of Nepal (HMG) has, over the years, taken a keen interest in providing educational opportunities to an increasingly larger number of women. In 1969, it signed an agreement with UNESCO to launch the "Equal Access Of Women to Education Programme". Beginning in 1970, the Programme has been in operation in several places of Nepal.

In recent years, more than ever before, women in Nepal are found attending various institutions of higher education and holding important positions in government and non-government agencies. However, it will be still a long time before women can be found working educationally and professionally at a level which is on a par with the country's male population. The following table on student enrolment by institute

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for 1980 shows the percentage of female enrolment at just a little over 19 percent. The largest size of women students is in three institutes of Tribhuvan University: Humanities and Social Sciences, Education, and Medicine.

Student Enrolment by Institute in 1980

Institute	Student Enrolment		
	Male	Female	Total
Humanities & Social Science	11,288	4,427	15,715
Law	1,964	102	2,066
Science	3,549	494	4,043
Sanskrit	491	13	504
Management	8,321	861	9,182
Medicine	719	574	1,293
Engineering	1,468	36	1,504
Agriculture and Animal Sciences	1,039	1	1,040
Forestry	277	-	277
Education	1,975	850	2,826
Total	31,092	7,358	38,450

Source: Ministry of Education, Educational Statistical Report, 1980.

Conspicuously enough, the Institute of Forestry is the only institute that did not have a single female student whereas even in the traditionally male - dominated subject, Sanskrit, there were a few girl students. (The first female enrollees at the Institute of Forestry were found in the fall of 1983).

Though training programmes in the area of forestry were started as early as 1947, it is rather surprising not to find

a single female student enrolled in the forestry training programme. The Institute of Forestry's objective of producing necessary manpower for conservation, development and management of forest and wildlife resources cannot be achieved to a great extent until a significant number of women are trained in the conservation and development of these resources.

Deforestation is one of the major problems Nepal is facing today. In rural areas especially more women are found involved in activities that cause deforestation, as they are the ones who mostly collect wood for fuel and fodder for animals. In such circumstance, many of the schemes for forest conservation such as forest management, forest research, establishment of nurseries, construction and use of fuel-efficient stoves, and exploration of alternative energy sources such as solar heaters, solar cookers, and gobar (cattle-dung) gas or bio-gas plants will not be viable without the active cooperation of women.

There seems to be, however, no particular reason why female students should not join the Institute of Forestry (IOF). Presumably, the main reasons for it are ignorance on the part of students and their parents about forestry as an important field of higher education and lack of vigorous motivational recruitment programmes to attract women towards forestry as a professional career. Given proper orientation and adequate incentive in the form of scholarships and employment opportunities, a large number of female SLC graduates can certainly be expected to attend the IOF or IRNR (the Institute of Renewable Natural Resources as it has been proposed to rename it). In the light of these reasonings it was deemed necessary to undertake an IRNR Female Candidate survey with focus on the level of knowledge and motivation

among the attitudes and expectations held by female candidates and their guardians regarding education and employment in the area of renewable natural resources.

### Objectives

Keeping in mind the important role women can play in forestry and in view of the universal trend toward providing them with increased opportunities in different spheres of developmental activities, the objectives set for this survey were

- to assess the attitudes, motivation, expectations and availability of qualified female Nepalese citizens for entrance into the Institute of Forestry (or IRNR) for certificate and diploma level training;
- to assess the attitudes of parents-guardians toward their daughters' education and careers in forestry and in related areas;
- to assess the attitudes of selected teachers and local community leaders toward female education in the forestry sector;
- to make a comparative study of the attitudes and motivation toward and expectations from forestry and the related areas of education as held by the students and their parents in the Terai and Hills and in urban and rural areas;
- to determine the magnitude and the nature of job opportunities in Nepal for qualified female graduates of IRNR at certificate and diploma levels;
- to review and assess the existing legal statement and opinions regarding the reservation of positions for women

in higher education institutions of Nepal; and

- to recommend strategies to RCUP and Tribhuvan University for encouraging female candidates to study at IRNR and to follow careers in the area of renewable natural resources in Nepal.

#### METHODOLOGY

As stated earlier, it was basically a survey of the attitudes of female students and their parents toward forestry as a field of higher education and as a professional career. In the following paragraphs, the site for the survey, the sample size and distribution, and the instruments used are outlined.

#### Survey Site

A total of seven districts that have a fair number of female students in grade ten were selected. This was done to make the survey manageable because of the small size and the geographically clustered nature of the sample districts. The seven study districts were Makwanpur and Chitwan (Terai), Tanahu and Kaski (Hills) and Kathmandu, Lalitpur and Bhaktapur (the Kathmandu Valley).

From within each of these districts sample locations were selected in such a way as to represent the district's both urban and rural areas.

Of course, there was no concrete statistical basis for selecting these districts. The guiding factor for the selection was, by and large personal judgement with an eye on the study limitations. With a view to representing the Terai and the Hills also, two districts each from these

regions were included as survey sites. All the three districts of Kathmandu Valley were also selected as many females from all over Nepal are studying <sup>in</sup> these districts. There were obvious advantages in the selection of these districts because a large number of potential candidates could be contacted here. Besides, it is quite likely that more females from these districts than from others would be willing to study in Hetauda or Pokhara because of geographical proximity from homes, transportation facilities, saving of costs and so on.

### Sample Size and Distribution

The total female enrollees in grade ten in the selected districts constitute the main population for the study. These grade ten female students also include those who were sent up for the School Leaving Certificate (SLC) Examination of the year 1983 and those who had been sent up but had failed in the SLC examination of 1982. Besides them, students studying science at the advanced level were also interviewed. The size of the principal population was 3993 for sent-up and SLC-failed respondents and 141 for female students in B.Sc. and M.Sc. classes of Tribhuvan University.

The guardians of the students were also interviewed to get an insight into their attitudes and expectations about the participation of female students in forestry education. As proposed, the size of this population was determined by that of the female students.

In addition, some teachers and local community leaders were also interviewed. The distribution of the number of individuals included in different samples under different populations is provided in the Sampling Chart below.

Sampling Chart

T O P O G R A P H Y	GIRLS		GUARDIANS		T E A C H E R S	C O M M U N I T Y L E A D E R S	T O T A L
	RURAL	URBAN	RURAL	URBAN			
H I L L							
Kaski	5	14	5	14	4	2	44
Tanahu	9	5	9	5	4	2	34
T E R R A C E							
Chitwan	11	12	11	12	5	3	54
Makwanpur	2	7	2	7	2	2	22
V A L L E Y							
Kathmandu	31	71+23* = 94	31	71+23* = 94	10	-	260
Lalitpur	5	25	5	25	6	-	66
Bhaktapur	12	13	12	13	5	-	55
Sub-total	75	170	75	170			
SUB TOTAL		490			36	9	535
							8
							Employers
							TOTAL SAMPLE SIZE = 543

\* B.Sc.-I year and M.Sc.-II year female students

## Sampling Procedure

After determining the size of the sample units of the different populations to be covered in each of the districts, it was decided to approach them within narrow geographical areas rather than to go through every corner of the district. This strategy was chosen because of limitations under which the study had to be conducted. The study, thus, was designed by following a cluster sampling approach.

Each of the seven districts was divided into two strata: rural and urban. Since each stratum might consist of several panchayats, it was considered both convenient and appropriate to take a panchayat as a cluster for the present study. At least three clusters were randomly selected, one from the urban stratum and the remaining two or more from the rural stratum.

In panchayats where there were several schools, a sample representative of schools were selected and the female students interviewed.

In case of teachers and community leaders, formal sampling procedures were not adopted. The sample of guardians was automatically determined from those of the female students.

## Survey Instruments

### 1. Questionnaires for female respondents

A set of interview schedules was prepared for the female sample which included several questions relating to the assessment of the knowledge, attitudes, motivation and expectations of the respondents as regards the subject of forestry and their availability for entrance to certificate and diploma levels of IRNR.

2. Questionnaires for parents/guardians

A set of questions was prepared for interviews in order to assess the knowledge, expectations, attitudes and motivation of the parents/guardians of the females interviewed toward getting their daughters/wards to study forestry at the higher education level.

3. Questionnaires for teachers and local community leaders

Two separate sets of questionnaires were prepared, one to interview teachers and the other to interview local community leaders, by way of finding out their feelings about the appropriateness of females taking up the forestry stream and forestry-related areas of education and employment.

4. Questionnaire for employing agencies

A questionnaire was developed for interviewing the heads of various employing agencies in related areas which included the nature of needed manpower in their respective fields and the number of job opportunities for qualified female graduates at certificate and diploma levels of IRNR.

5. Observation form

An observation form was designed to develop the socio-economic profiles of the survey sites. The data generated by the form were incorporated in the analysis and interpretation portion of the report.

Data Collection Procedure

The field work was carried out by four teams of two members each. Qualified and experienced individuals were

selected for the field work.

Structured questionnaires and unstructured interview techniques were employed to solicit responses from female respondents and their parents/guardians as well as from teachers, local community leaders, and heads of employing agencies. The interviewers learned the questions by heart while other members of the research team did the recording. Before asking questions related to RNR, the enumerators made sure that the interviewees understood the scope of renewable natural resources in right perspective.

Before proceeding with the task of collecting data the questionnaires and observation forms were pre-tested and revised. The field research staff participated in the pre-tests as part of their two-week-long orientation programme.

#### Data Analysis Procedure

For each geographical location, responses of the female interviewees, guardians, high school teachers, and local community leaders were separately analysed under the three headings; (i) knowledge (ii) attitudes; and (iii) motivation and expectations. Later a comparative analysis was made of the responses from the Hill, Terai, and Valley districts and from rural and urban areas.

Since the responses generated were primarily qualitative in nature, no attempt for statistical analysis was made. However, a number of tables and graphs were included for the purpose of showing trends as well as comparative pictures.

## II. A SUMMARY OF MAJOR FINDINGS

In view of the fact that no female students were found enrolled at the Institute of Forestry, potential female enrollees, their guardians, selected high school teachers and local community leaders were interviewed. The main purpose of these interviews was to assess the knowledge of the respondents regarding the present state of renewable natural resources (RNR) in Nepal and their attitude toward RNR as a field of higher studies and as a professional career in life for women. Altogether 245 female respondents, 245 guardians, 36 high school teachers, six local community leaders, and representatives of eight major employing agencies of RNR personnel were interviewed.

In accord with the clustered sampling approach that has been followed, a total of seven districts were selected. These districts represented the Hills (Tanahu and Kaski); the Terai (Bharatpur and Chitwan) and the Valley (Kathmandu, Lalitpur and Bhaktapur). Questionnaires for interview purposes were the major form of instrument used in collecting information and data. Interview was the technique used for soliciting individual views and data from all the respondents. Based on the responses received, major findings of this study are briefly described in this paper.

For the sake of brevity, the presentations of major findings are organized into four sections.

- A. Knowledge;
- B. Attitudes;
- C. Motivation and Expectations; and
- D. Educational and Employment Opportunities.

A. Knowledge

1. That Nepal's renewable natural resources are being destroyed and depleted was the feeling expressed by more than 70 percent of the respondents from all geographical locations.

Statements like 'the trees are being felled', 'wild life is disappearing' and 'soil erosion is taking place' were made by both the females and their guardians. The smallest percentage (70) of parents who showed this awareness belonged to the Hill districts. On the other hand the largest percentage (85) of female respondents who were aware were from the hills.

That the renewable natural resources in Nepal are declining was the opinion expressed by more urban guardians (84%) than rural parents (63%). Unlike in the case of the guardians, more rural females (82%) than urban females (76%) commented that Nepal's renewable natural resources are in a critical condition.

2. Both the female respondents and the guardians expressed concurrent views on the fact that the land would become a desert in the event renewable natural resources in Nepal are not properly conserved.

That the land would turn into a desert was the most common fear expressed by 30, 34 and 40 percent of the guardians from the Hill, the Terai, and the Valley districts respectively. This was even more significant a concern for the females as 78, 31 and 36 percent of them from the Hill, the Terai and the Valley districts respectively stated that the land would turn into a desert. While this point represented a common

ground of agreement for the females and their guardians, the latter seemed to be more concerned about the lack of fuelwood, timber for construction and fodder for animals and the females were found to be more concerned about the disappearance of wildlife which would be the inevitable result of not conserving RNR.

3. The guardians and their daughters from all regions placed a high value on the importance of education in renewable natural resources.

The number of parents who considered education necessary ranged from 81 percent in the Hills to 92 percent in the Valley. All the females from the Terai felt that education was necessary in order to be able to conserve RNR as compared to 81 percent of the Hill and 97 percent of the Valley female students. As for the opinions of the urban and rural area residents, a great degree of consensus was found among the guardians (83% each from urban and rural areas) and the females (90% urban, 95% rural).

4. A majority of the respondents were found unaware of IRNR or of the opportunity in higher education and employment available for Nepalese women in the area of renewable natural resources.

Nearly a half (47%) of guardians in the Valley were found to be aware of IRNR as compared to 40 percent of the guardians who had this knowledge in the Terai and to 15 percent in the Hills. In case of females, more of Terai residents were found to be aware of IRNR than those of the Valley and Hills. It was discovered that a half of the parents from urban areas were aware of IRNR as compared to only 22 percent of the parents from rural areas who had knowledge about it. As

for the female respondents, 44 percent from urban areas and 37 percent from rural areas affirmed to have known about IRNR.

5. A majority of the females presumed that it would be necessary to pay frequent visits to forests while working in the area of renewable natural resources. A significant number of parents also believed that it would be necessary to spend most of the time there.

A majority of the females from all three areas (57% Hills, 59% Terai, and 77% Valley) thought it necessary to spend some time in the forest on a regular basis. Compared to the females from the Hill, the Terai and the Valley districts (21%, 28% and 10%) more parents from those districts (51%, 43% and 23%) believed that it would be necessary to spend most of the time in forests if employed in the area of RNR. However, a majority of the guardians from urban areas (55%) and quite a few guardians (40%) from rural areas believed that frequent visits would be required.

#### B. Attitudes

6. Both the guardians and their daughters held a positive attitude toward higher education as well as careers for women in the area of renewable natural resources.

Irrespective of their economic status, educational attainment, geographic regions and occupation, 93 percent of the guardians from the Valley, 87 percent from the Terai and 66 percent from the Hills approved of women pursuing higher studies and taking careers in the area of RNR. Nearly all of the females from the Valley and the Terai as well as 78 percent

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of them from the Hills contended that it was necessary for females to have a background knowledge of RNR for the purpose of conserving Nepal's precious natural resources. The reasons put forward by a few respondents who disapproved of women working in the area of RNR were that this kind of work was physically not suited to women and the forest site might not be a safe place for women to work in.

7. Most of the teachers were unaware of IRNR but were found receptive to women's education and careers in renewable natural resources.

Nearly all of the teachers were of the opinion that the state of RNR in Nepal was getting worse. They were convinced that women's participation in the area would alleviate this problem. Some of them emphasized the need for introducing subjects related to RNR at the school level and for launching a vigorous campaign to make the potential students aware of higher education facilities in renewable natural resources.

8. Local community leaders expressed their concern at the dwindling condition of RNR in Nepal and supported female participation in this area.

Like the teachers, the community leaders also felt that it was necessary to take steps toward making SLC candidates more aware of the educational opportunities available at IRNR. They also suggested that the female candidates should be provided with scholarships and hostel facilities and that a reasonably good security condition should be ensured which can motivate them to continue to stay in the campus.

C. Motivation and Expectations

9. Of all the subjects, science seemed to be the most favoured field of higher studies for both the females and their guardians.

In all three geographical locations the single largest number of females as well as of guardians was in favour of studying science at the higher education level although humanities and social sciences, management, and technical and vocational subjects were also chosen by some respondents. Science received favour from 24, 45 and 40 percent of the female respondents from Hills, Terai and Valley districts respectively. The predominant reason for choosing science was a general desire to be in the medical profession.

10. A greater number of females seemed to be eager to join IRNR than that of parents who wanted their daughters to join it.

A majority of female respondents from the Terai (78%), the Hills (60%), and the Valley (62%) showed their willingness to study at IRNR. Similarly, a majority of but less than the percentage of girls from the Terai (59%) and the Hills (57%) expressed their interest in getting their daughters enrolled at the Institute of Renewable Natural Resources (IRNR). Only 29 percent of the parents from the Valley districts liked their daughters to attend the Institute.

11. Scholarship prospects impressed only a small number of the respondents, who were initially reluctant to join IRNR, and employment prospects impressed still a smaller number of them.

Availability of scholarships as a motivating factor had its effect on a total of 50, 33 and 14 percent of the guardians and a total of 21, 15 and 5 percent of the females from the Hill, the Terai, and Valley districts, respectively. It had a greater effect upon the respondents of the rural area than upon those of the urban area. In all locations it had a greater effect on guardians than on their daughters.

Employment prospects as a motivating factor induced only a combined total of 5 guardians and 12 females to change their minds. Seventeen percent of the females who were attracted by employment prospects were first year M.Sc. students.

12. The respondents tended to prefer a campus near their homes for higher studies in B.A.

An overwhelming majority of parents (86%) and of females (79%) from the Hill districts indicated their preference for a campus in Pokhara. On the other hand, Hetauda was the preferred location for 80 percent of the guardians and for 69 percent of the females in the Terai.

The largest number of guardians (45%) and females (45%) from the Valley districts chose neither Pokhara nor Hetauda; they expressed their preference for a campus near their homes. Hetauda was the second choice of 33 percent of the guardians and 21 percent of the females. Only a small number of parents (7%) and females (9%) from the Valley selected Pokhara.

13. A preference for intra-mural jobs over field-based jobs was shown by a majority of the interviewees.

While 23 percent of the parents from Hill districts said they liked their daughters to hold positions related to nursery and tree plantation and another 23 percent hold positions within the Ministry of Forests, 19 percent referred to a teaching position at IRNR as their preference. An administrative position in the Ministry was pointed out as their preference by 29 percent of the females from the Hills while 23 percent each preferred laboratory research and tree plantation.

Laboratory research was the favourite choice of a significant number of parents (32%) as well as of females (23%) from the Terai districts. It was the choice also of a large number of females (43%) and guardians (24%) from the Valley. It was only in the Terai where the largest percentage of females preferred tree plantation.

#### D. Educational and Employment Opportunities

14. There seem to be no legal statements and strong opinions which favoured reservation of positions for women at the institutions of higher education in the country.

There exists a broad national policy which is directed towards making "special programmes" for women so that they can play a meaningful role in the nation's development activities but this policy is generally speaking, not translated into concrete steps such as reserving quotas of seats for women in the institutes of higher education. Some of the examples of the steps taken toward providing increased

educational opportunities to women include women's adult literacy programme, women's hostels, free education up to the high school level in remote districts and training of women teachers by the Institute of Education.

The Constitution of the Kingdom of Nepal does not make any discrimination on the ground of "religion, race, sex, caste or tribe", and "in making appointments to the Government service or to any other public service". However, there seem to be no legal statements giving preferential treatment to women except for one seat in village panchayat. From the legal point of view IRNR may not be able to allocate a separate quota for women.

15. The scope for the employment of IRNR female graduates at the certificate and diploma levels seems to be very much limited.

Though a large number of male workers were employed in various RNR-related agencies, there were no female employees in them. As indicated by the employing agencies, there is some scope in the National Parks and Wildlife Department for a limited number of certificate and diploma level female graduates of IRNR, whereas it has been found that, as things stand now, there is not much scope yet for women employees in other sectors.

III. EMPLOYMENT OPPORTUNITIES FOR  
FEMALE IOF (IRNR) GRADUATES

With the purpose of identifying the nature and number of job opportunities for certificate and diploma level graduates of IRNR, various agencies including the Ministry of Forests and the Institute of Forestry were contacted. The names of most of the employing agencies were derived from the Resource Conservation and Utilization Project, in a report prepared by Agricultural Projects Services Centre in 1979. The following table presents the names of the agencies and the number of people employed in such agencies. However, conspicuously enough, there are no female employees in these agencies.

Employing agencies and their employees

Employing Agencies	No. of Employees			
	Gazetted Level		Non-Gazetted Level	
	M	F	M	F
Institute of Forestry (T.U.)	5	x	3	x
Products Development Committee	2	x	32	x
Soil Conservation and Watershed Management Department	42	x	x	x
National Planning Commission	1	x	x	x
National Park & Wildlife Department	22	x	31	x
Ministry of Forests/Department of Forests	128	x	325	x
Environmental Impact Study Project	1	x	2	x
TOTAL:	201	0	393	0

Reasons for Lack of Female Participation

With a view to finding out their opinions on the pattern of employment as shown by the above table the authorities were asked the reasons for non-participation of females in the higher education level in RNR and in following professional careers in this field. The comments and reasons thus expressed in their response were of various nature. Importantly, some pointed out that it was the physical strength (or weakness) of women that influenced their involvement in this field unfavourably. This led them to hold the view that it would be difficult for women to take up a job in the field of forestry. Thus, they responded in unequivocal terms that women would not be able to take to a career in this field.

There were other authorities who held different views. They stated that there might have been little or no information amongst the females about the study as well as the work opportunity available in the field of RNR. Still others opined that it would be hard for women to work in the forest and its allied sectors. Besides, the government policy has been of such a nature that motivates only males to make use of the training opportunities available in the related field with the result that the females were not only less encouraged to step into this field but they also found fewer chances open for them to get higher education or training in this field.

Mainly, as these responses reveal, females seem to be sympathetically demotivated by prevailing government policies to take a job in this so-called 'difficult' field as a professional career in life.

Availability of Non-Gazetted Positions for Women

With a view to getting an insight into their attitude toward involving women in the field of RNR, the concerned authorities were asked how many females could be employed in their respective offices or agencies in the non-gazetted first class posts under the different pools of forest services. Different fields of activities were envisaged by some of the respondents representing different agencies in their answers, as shown in the table.

Availability of non-gazetted positions

Employing Agency	No. of Positions Available	Nature of Job
Institute of Forestry	4	Grow nursery bed, do laboratory research
Department of National Parks and Wildlife	21	Receptionist, interpreter, judicial matters.

The Institute of Forestry envisaged the need of 4 female employees to pursue such work as growing nursery beds and executing an afforestation programme. Besides, they could also be involved in laboratory research work. Similar views were also expressed by the Forest Products Development Committee.

The Department of Soil Conservation and watershed Management Department and the National Planning Commission stated that they could not say anything about it rightaway. The National Planning Commission did not have any field programme related with RNR. This institution is entrusted with the task of formulating plans only.

One of the respondents said that the projection of manpower need in the RNR had not been well perceived by the government. Another respondent indicated the need for 21 non-gazetted female employees for his department. In regard to their job assignment he referred to such areas as working in the Visitors' Section as receptionists and explaining to others what National Parks meant. On the other hand, they could also be involved in the judicial section to look into cases related with forestry, and visiting the field to supervise fieldworkers.

Respondents from the Ministry of Forest and the Forests Department doubted if women could participate in this field at all. The crux of their reasoning was that women would be physically incapable of carrying out field activities as efficiently as men.

Availability of Gazetted Posts for Women

Another question having the same thrust as the preceding one was put before the same authorities concerning gazetted posts for women.

Their views and their attitudes were of varying nature. If the respondent from one agency felt the need of women employees to work as Assistant Lecturers, their number needed to be decided upon as per requirement in his agency; see next table. Another agency did not find any need for females to work in this position, because it doubted that females would be able to visit field sites and supervise the nursery beds and the afforestation programmes.

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Availability of gazetted positions

Employing Agency	No. of Positions Available	Nature of Job
Institute of Forestry	-	Instruction
Soil Conservation and Watershed Management Department	-	Nonformal training and research
National Planning Commission	1	Research
National Parks and Wildlife Department	4	Management of National Parks and Reserves
Ministry of Forest	5	Assistant District Forest Controller

A third agency saw the possibility of employing female officers in this field for the purpose of imparting knowledge, information, and training to rural women and conducting research related to forest conservation and forest utilization. Another respondent felt the need for employing one female officer for supporting one male officer who is already employed in carrying out planning and programming projects and conducting evaluative study on RNR. In the same way, another agency realized that at least 4 female officers would be required in his agency for carrying out the job of the management of National Parks and Reserves. Still another respondent said that he was not sure how many female officers in his project would be required since there was no clear-cut policy formulated by the government in this respect. Two respondents expressed the view that employing female officers in their respective agencies would have to be considered in relation to conditions. The Ministry of Forest stated that at least five or six female officers as Assistant District Forest Controller could be employed subject to their willingness to work in posts which were disliked by males. Since the vacant

posts were meant for field sites that might not be suited or acceptable to females. Due to this there would arise a need for basing these female officers at the centre which would be problematic for the agency itself.

Suggested Measures for Improving Female Participation

Finally, the respondents were asked to suggest the measures that could be taken to engage females in RNR conservation activity. They gave varying opinions. One of the respondents opined that the highly educated females should be involved in the nursery development and afforestation programmes by laying emphasis on these activities.

Another respondent expressed the view that priority should be given to involving females in planning, research and training activities rather than in field work. Similarly one agency preferred to assign females to publicity work; moreover, they should not be sent far away from their home surroundings and if they were posted in distant places at all, proper security measures should be ensured for them.

Expressing his feeling, one of the respondents noted that such educated females who had already received field orientation should be selected to work in the field. In addition to this, if women marry men who work in the same field or who have the same occupation, they might be motivated to work in this field.

Another respondent expressed his feeling that women should not be sent out to the field soon after they receive this education. First of all, they should be involved in laboratory research and gradually only they should be sent out to the field. According to him, they should be prepared,

of their own accord or in awareness of their own interest, to engage in fieldwork. One more respondent held the view that, while providing training to females, attention should be paid to orienting them towards and/or to arousing their interest in the extension activities of the forest work.

### Discussion

On the basis of responses received from the major employing agencies of IRNR certificate and diploma level graduates, one may be inclined to conclude that female graduates have only limited employment opportunity. In general, the respondents expressed less than favourable attitudes toward the engagement of women in RNR-related activities. Some of them could not even give an approximate number of women who could be taken in their agencies. Some referred to only a few positions that would be appropriate for women. Before going too far in encouraging women to enroll at IRNR, it is important therefore to ascertain whether women can actually find suitable positions upon completion of their RNR education.

Questionnaire for Employing Agencies

Name \_\_\_\_\_ Post \_\_\_\_\_

Name of the Office \_\_\_\_\_

=====

1. Obviously the number of highly educated females in the field of forestry is low and the involvement of females in forest conservation work in Nepal is also equally low. What, in your opinion, could be the reasons for such a situation?

2. How many technicians related with forestry are working in this office?

Non-gazetted first class  
(Technical)

Gazetted third class  
(Technical)

Male  Female

Male  Female

3. If there are no female officials, what in your opinion, could be the reasons?

4. How many females of the non-gazetted first class (technical) level belonging to various groups under the forest civil service can be engaged in forest-related activities and what type of work are they expected to do?

No. of Posts	Job Description

5. What could be the reason(s) if they cannot undertake any forest-related work?

6. How many females of the gazetted third class (technical) level belonging to various groups under the forest civil service can carry out forest-related work and what type of work in this connection can they perform?

No. of Posts	Job Description

7. What measures should be taken to motivate women with higher education in forestry to play a more active role in the conservation of forest resources?

RECOMMENDATIONS OF THE SURVEY

Based on the study findings the following strategies are suggested for IRNR. These strategies are listed in order of priority.

1. Explore employment opportunities for women

After interviewing the representatives of major employing agencies of RNR personnel it was clear that the jobs for women are limited. If only limited job opportunities are to be made available for female certificate and diploma level graduates of IRNR, there is not much point in making great efforts toward encouraging women to join IRNR. In this connection, it is important to keep the employing agencies posted about the Institute's plan for encouraging women to attend IRNR. It is suggested that this should be done by organizing a high level seminar which is participated in by representatives from employing agency officials and concerned policy-makers. Such a seminar should deliberate on the findings of this study in general and on job prospects for female IRNR graduates in particular.

2. Give IRNR wider publicity

One of the reasons why none of the female respondents selected IRNR for their higher education may be because a majority of the respondents, particularly from hills, were unaware of the Institute. Thus the need for its greater publicity is outstanding. Those who should be made aware of IRNR and its programmes are secondary school girls and their guardians, secondary school teachers, and local community leaders. Several strategies can be adopted in approaching female high school students.

One strategy would be to send brochures to those schools from time to time. Another strategy can be to send IRNR

representatives to high schools for the purpose of organizing student group sessions to tell them about the Institute. This occasion can be used for talking to headmasters, teachers, local community leaders and even to guardians by inviting them to schools or even by visiting them at home. These people also can benefit from IRNR brochures.

3. Recruitment of females from around IRNR Location

The respondents choose to study in a campus near home. Those from the Terai choose Hetauda, those from the hills choose Pokhara and the Valley respondents who preferred neither of the two expressed their desire for a campus close to home. Only a small number of females and their guardians from the Valley were willing to attend the campus in Hetauda. It will be true of the candidates from Pokhara as well. The largest number of females are likely to come from Makwanpur and the nearby Terai districts. At present, most of the students at the Institute of Forestry are from Narayani and Janakpur Zones. Thus it is best to concentrate on recruitment from these two zones.

4. Security measures for female students and employees

'Security' was one of the most frequently mentioned subjects when the respondents were requested to make additional comments regarding women's study and employment in the area of RNR. By the term 'security' the respondents meant both the financial assistance and the physical protection. It is suggested that the female students be provided with facilities of a hostel under the supervision of a warden. The hostel should have restricted hours and restricted visitors. Similar measures should be adopted to provide physical protection to female employees as well. The provision made for these facilities should be widely publicized.

5. Use of scholarships as a motivating factor

The hill respondents in particular who were reluctant to join IRNR changed their minds and became agreeable to joining it when scholarships as a motivating factor was introduced. It was far more effective than the employment prospect. It is suggested that availability of scholarships be mentioned to potential candidates and their guardians. It should especially be mentioned to the residents in hill areas.

In view of the fact that it may not be possible for IRNR to allocate quotas for women, provision of special scholarships may be made to encourage female candidates to attend the Institute.

6. Devise programs to make people appreciate the importance of RNR

A large number of respondents, particularly from Hills, held the opinion that the state of Nepal's renewable natural resources is good because of the afforestation programs that were under way. This belief will probably make them less concerned to conserve RNR. It is necessary therefore, to explain to these people that some of the adverse consequences such as lack of wood, soil erosion, and drought which they were experiencing were the results of the depletion of RNR. Natural resource extension workers could be utilized to spread this message.

7. Make aware of RNR-related job possibilities

A significant percentage of female respondents and their guardians feared that it would be necessary to spend "most of the time in forest" when working in the area of RNR. They

seemed to be unaware of the various job possibilities away from a forest environment. It will therefore be worthwhile to mention the job possibilities in IRNR brochures and to make things clear whenever potential candidates and their guardians are contacted. At the same time, it is necessary also to encourage them to work in extra-mural activities. The study has found that a substantially large number of respondents preferred indoor jobs compared to those who indicated their willingness to take to nursery, tree planting and other outdoor activities.

8. Miscellaneous strategies to encourage women to attend IRNR

Literature on the Institute of Forestry does not specifically make any reference to women or encourage them in any other way to join the Institute. It is suggested that future IRNR publications have specific matters addressed to women.

One of the most prominent reasons for respondents, holding a positive attitude toward the need for attending IRNR was 'to be equal to men'. This reason can be used to encourage reluctant candidates to join IRNR.