"Household Decision Making in Nepal: Attitudes Toward Gender Roles."

1. Introduction

Interest in improving the condition and position of women, especially in poor countries have focused on the ideas of *status improvement* and *empowerment*. Though much of sociological literature on this topic focuses on trying to clarify the ambiguity about the definition and elements of these ideas, the more universally and broadly used definition in various "plans of actions" focus on the contexts of women's access to knowledge, economic resources and political power, as well as their personal autonomy in the process of decision making (United Nations, 1994).

Sociological research on the processes and individual and social outcomes of educational attainment is probably one of the most studied areas in the field. A growing body of literature also focuses on the outcomes of women's economic autonomy on changes in their roles and positions. But evidence of the impact of collective action processes (community groups), a key strategy for implementing the plans of action for empowerment and status attainment of women at the grassroots level, has not been well documented, apart from program evaluations. Most of what has been documented focuses on the efforts of group based micro-credit programs and its outcomes on changes (both positive and negative) on the position and condition of women in poor countries (Hashemi, et al. 1996; Schuler, et al. 1997).

Even after decades of focusing on "gender and development", and women's empowerment, do poor women have increasing control over their lives? Are they able to make decisions and control the implementation of them? What kinds of changes in behavior among men and women in poor settings are affecting their attitudes towards

gender roles? How are these attitudes bringing changes in the status and the empowerment of women *vis a vis* men at the household, community and national levels?

Though there are many questions that still need to be answered, this study only attempts to look at the overall effects of participation in community groups on attitudes about the participation of women in household decision making, using survey data from a rapidly changing social setting in Nepal. It also tests the theory about the linkages between educational attainment and attitudes about women's participation in household level decision making in a society with low levels of education.

2. Theoretical Framework

Nepali society is multiethnic and multicultural consisting of many linguistic sub groups, social beliefs and practices, as well as variations in gender relations within the ethnic groups (Bista, 1972). A predominately Hindu society, the social structure is marked by patriarchy and strict gender hierarchies, where gender roles are characterized by greater access, control and decision making over resources (social, economic and political) by men at the household, community and national levels, though these roles vary by ethnic groups (Acharya and Bennett, 1981).

To examine the links between educational attainment and group participation on egalitarian gender attitudes about decision making at the household level, this study is guided by the framework of the family mode of social organization (Thornton, Fricke, et al. 1994), its linkages to modernization theory (Inkeles and Smith, 1974) and the conceptual framework of the development paradigm (Thornton, 2001; Thornton, 2005).

The family mode of social organization focuses on social change brought about by the changes in the extent to which activities of daily social life, formerly controlled by

the family, came to be organized by a host of social structures and institutions such as schools, industries, other employment opportunities, dormitories, mass media, etc. that began to influence many dimensions of life (Thornton, Fricke, et al. 1994:89). The study setting in Chitwan too has undergone tremendous social and economic changes with the introduction of new social organizations and services (as well as an influx of international aid to support poverty alleviation) that have made considerable impact on family structure, fertility behavior, marriage patterns and the attitudes of people on different elements of life (Barber, 2004; Ghimire, et al. 2006). Apart from the growth in access to education, in the past two decades, as per the policies of the government of Nepal¹, people in Chitwan have also been introduced to new organizations and processes such as non family collective and social action that have sought to stimulate and support social change and economic growth in the society. Participation of men and women in such non family organizations and greater exposure through education is likely to bring changes in the socio-cultural traditions and behavior within the family, including influencing changes in decision making at the household levels.

The modernization theory posits that societies industrialize and Westernize, with "Third World" countries like Nepal, at the lower end of a continuum of social change that tries to emulate the systems and processes of "developed" countries on the higher end, like United States and Western European countries. The movement along this continuum can be marked by growing individualistic attitudes and behavior towards religion, the family, social stratification, women's rights, politics, mass media, consumerism, and other topics (Inkeles and Smith, 1974:25). Government plans and policies have also

¹ Eighth Plan (1992-1997), Ninth Plan (1997-2002) and <u>Tenth Plan (2002-2007)</u>, His Majesty's Government of Nepal, National Planning Commission, Kathmandu, Nepal. Also see <u>www.npc.gov.np</u>.

emphasized "modernization" of different sectors in the country. Though the pace of change has been slow, elements of the modernization theory are likely to impact upon behavior and attitudes. Modern education in particular exposes men and women to the ideologies of individualism and independence, leading to more egalitarian attitudes. In their 1974 study of tracking social changes in six different countries based on the modernization theory, Inkeles and Smith hypothesize that "...the liberating influence of the forces making for modernization would act on men's attitudes, and incline them to accord to women status and rights more nearly equal to those enjoyed by men" (ibid:26).

The developmental paradigm is another powerful framework to explain and guide social change, which has been applied at the individual, organizational and societal levels. Thornton (2001 and 2005) explains how the power of the development idealism lies in what it posits as "...its ability to change structures, ideas, attitudes and behaviors, and that it is largely a value system indicating basic human rights, the nature of good life and the means to achieve the desired ends" (Thornton, 2005:240). This has guided the concept of socio-economic and political change or progress ("development") in poorer countries in Asia and Africa – both by governments of the countries and international aid institutions. Furthermore, Thornton also states that "the power of developmental paradigm provided a powerful framework for ordinary people because they defined some of the attributes of the good life, specified causal approaches to reaching the good life and provided statements of fundamental human rights" (ibid:234). Therefore modern education and processes for social and economic change are elements that are likely to have been strongly influenced by the development paradigm, in aiming for the "good life" and for more egalitarian attitudes as a basis of fundamental human rights.

Within the context of these theories and frameworks, this study proposes two hypotheses:

<u>Hypothesis 1:</u> Men and women who participate in community group activities have more egalitarian attitudes about gender roles within the household compared to those who do not.

<u>Hypothesis 2:</u> Men and women who have higher educational attainment have more egalitarian attitudes about gender roles within the household.

Some specific <u>mechanisms</u> are also suggested that would operate to produce the relationships hypothesized above.

1. Acknowledgement of and respect for increased knowledge, skills and potentials. Studies have shown how formal education has been linked to social change and a wide range of social transformations such as economic growth, demographic transitions, political growth, and status attainment (Caldwell, 1982, Axinn and Barber, 2001; Beutel and Axinn, 2002). In a setting marked by patriarchy and strict gender hierarchies, men and women gaining education in schools not only exposes them to non family social contexts, but also widens their knowledge and increases their skills, and exposes them to the diffusion of the spread of new (or modern) aspirations or attitudes towards family roles, potentially more egalitarian gender roles. This is in line with the modernization theory that suggests how western education exposes women and men to ideologies emphasizing independence from the extended family and egalitarian conjugal relationships (Caldwell, 1982). This potentially holds true in Chitwan too as the education system and context in Nepal is heavily influenced by that of India, where western educational traditions and curricula were established by the British during the

colonial period. In their 1997 study Malhotra and Mather also point out that increased education and increased opportunities for non family and paid employment are also likely to cause structural changes in the economic roles of family units, of women, or even of children but their key focus in the study is how "... the relationship between education, work and women's control of household decisions is conditioned by the larger social context" (ibid: 601).

With their increased skills, knowledge and self confidence, their potential for accessing credit or earning income, and their ability to influence change at the community levels, acknowledgement of and respect for the changing role of women relative to men could lead to changes in the attitudes of men and women too, about both having a more equal share in household decision making (though as Malhotra and Mather suggest, this could be conditioned by the large social context).

2. Increased skills, information, attitudinal changes, and social action through participation in community group activities. Since the advent of development aid in Nepal more than two decades ago, the principle implementation strategy of most development agencies in the country has been through group formation and group-oriented activities (Biggs, et al. 2004). For both government and non government programs and projects, community groups have become a popular vehicle for reaching people with services – family and reproductive health, rural infrastructure, agriculture and livestock, management of natural resources (water, forests), access to credit, etc.

Such groups were established at the local levels to focus on service delivery and on social inclusion of poor and marginalized groups in the planning and development processes, and for the empowerment of the group members. Evidence about the effect of such

group activities have focused on the impact of credit programs in women's social and economic empowerment and also on changes in their fertility behavior (Hashemi, et al. 1996; Schuler, et al. 1997).

Research about the links between behavior and attitudes (Cleland and Hobcraft, 1985; Thornton, Alwin, and Camburn, 1983) provide a useful framework to better understand how non family behaviors can potentially influence attitudes. Participation in community group activities exposes men and women to non family settings, activities, ideas and processes that lead to a departure in the family mode of social organization.

They are exposed to *new knowledge and ideas* (new techniques and practical skills), have *increased access to information and services* (accessing credit and other government and NGO resources, natural resource management, their legal and human rights) and *increased self esteem, self worth and self confidence*, which in turn could culminate in a desire for increased social attainment and participation in decision making processes at the household and community levels. Such non family and non traditional behavior would potentially lead to new attitudes about gender roles at individual, community and organizational levels.

More recently, many groups in Nepal have developed into higher level networks, federations, cooperatives and NGOs, which are getting involved in policy advocacy and securing the rights and interests of their members. One of such example is the Federation of Community Forests Users of Nepal – FECOFUN (Biggs, et al. 2004). But groups at the community level have also successfully been able to lobby for schools or health clinics in their neighborhoods (Barber et. al, 2001)

Thus men and women who have participated in groups and have some levels of education are likely to have more egalitarian attitudes about decision making at the household level compared to those who have not participated in group activities ever or have had lesser or no education.

3. Data and Methods

The Research Setting and Data

The setting of the Chitwan Valley in south central Nepal is ideal for this study due to the settlement history of the area and the dramatic changes it has gone through since. In the mid 1950s the government of Nepal allowed for clearing of the densely forested area, eradication of malaria and allowed re-settlement of migrants (particularly from the mid and high hills) into the valley, who were attracted by the fertile soils. Therefore, there is a mixture of different ethnic groups that are living within the study area, all of whom have distinct socio-cultural identities, languages and religious affiliations allowing a study of the ethnic diversity of the country within a microcosm. The study area has seen rapid changes in socio-economic conditions and physical environment of the valley within a short span of time especially since the mid 1970s due to the linkages of several key transportation routes. This brought important changes in access to education, health and other government services (agriculture and livestock, natural resource management), employment, wage labor participation, as well as considerable focus of international donors and NGOs to support the government's efforts in improving service delivery through a multitude of development programs.

For the purpose of my analysis, I use data from the 1996-1997 Chitwan Valley Family Study (CVFS). The CVFS selected a systematic probability sample of 171

neighborhoods in western Chitwan (Barber, et al.1997) where neighborhoods were defined as a geographic cluster of 5-15 households. The structured individual survey component interviewed *every resident* between the ages of 15 and 59 in the sampled neighborhoods leading to a sample size of 5,271 respondents. The respondents were asked a variety of questions regarding their family background, personal characteristics, experiences, childhood community context, marriage and marital relationships, their attitudes about various aspects of social life and their participation in groups.

Immediately following the individual interview, information was collected about the respondent's age, residence, marital status, children, contraceptive use, living arrangements, schooling and work experience using a semi-structured life history calendar. The questionnaires were administered by field staff in face-to-face interviews conducted in the homes of the respondents with a response rate of 97%².

For the purpose of my analysis, only respondents between the ages 25-54 are used leading to a sample size of 2,851. Respondents between ages of 15-24 were dropped as they are more likely to participate in *youth clubs* rather than community groups and are also more likely to be in the process of completing their high school education.

Respondents of the age group 55 and above were also dropped due to the relatively small number of cases. The CVFS classified the communities into five major ethnic groups – the High Caste Hindus (the largest group), Low Caste Hindus, Hill Tibeto-Burmese, Terai Tibeto-Burmese, the Newars and the rest were classified as "others" (Axinn and Barber, 2001). The last category was also dropped for this analysis due to the small number of observations.

Measures

² http://perl.psc.isr.umich.edu/indivdata.htm

Dependent Variable

The CFVS collected a number of measures of attitudes related to women's roles at the individual and household levels. This study focuses on only one of those measures related to what I take to represent "egalitarian attitudes" within the household. This was measured using responses to a statement that was presented - "A man should make most of the decisions in the household". The responses to this question was fairly normally distributed on a scale of 1 "strongly agree" (33.46%), 2 "agree" (27.32), 3 "disagree" (38%) and 4 "strongly disagree" (0.84%).

Independent Variables

As this study examines the effect of educational attainment and participation in groups on gender attitudes of men and women in Chitwan, two independent variables are tested. The first variable measures "participation in groups ever" through asking respondents whether they had ever been a member of any groups or associations such as a User's Group, Mothers Group, health groups, Rotary Club, etc. This is a dichotomous variable with 18% (n=514) of the respondents having ever participated in groups. A follow-up question was also asked to identify the types of groups respondents had ever been members.

The second variable I use, "educational attainment" is a partially continuous variable where respondents were asked the highest grade in school or year of college they had completed (from no education to 10 years and more). Over 52% of respondents have had no education and almost 16% have had 10 years or more of education.

Controls

Several control variables are included in the multivariate models that are likely to affect egalitarian attitudes that are specific to the context of the study area. As mentioned earlier, Nepali society is broadly polarized in terms of gender roles and attitudes and this study attempts to better understand some of the factors that might contribute towards reducing this polarization. Controlling for gender of the respondents (coded female=1, male=0) makes it possible to study egalitarian attitudes without the influence of gender, though the differences in attitudes among men and women and the factors affecting those differences also merits in-depth analysis.

Differences in age and in birth cohorts also exert differing influences on social roles and expectations in Nepali society especially in the case of a strictly hierarchal society and more so in the case where within a span of 50 years many socio-economic and political changes have been introduced in the study area. Therefore birth cohort (coded 1 and 0 for six dummy variables) is also used as a control. The latest and the earliest cohorts have been dropped from this analysis while cohort1 (age group 25-34) is used as the reference group. Due to variations in the status and conditions of women in different ethnic groups caste/ethnicity is also used as a control with five categories and the Upper Caste Hindu used as the reference group.

A set of parental characteristics ("mother ever educated", "father ever educated", "mother worked for pay" and "father worked for pay") are also used as controls since previous research has indicated the impact of parental attitudes and behavior on children (Axinn & Thornton, 1996; Thornton, 1991). These are also dichotomous variables. Recent research has also provided evidence of the effect of community level changes on individual behavior (Axinn & Barber, 2001) hence I use two measures that represent

community level characteristics that could likely influence individual behavior and attitudes. The "presence of development groups" and "women's groups" in the neighborhood when the respondent was 12 years old, are two measures that are also used as controls in this study.

Descriptive statistics for all the measures used are presented in Table 1 while the breakdown of membership in different kinds of groups is presented in Table 2. The effect of different types of groups on egalitarian attitudes that have been more meaningful and have had more policy implications but it is beyond the scope of this study due to limited numbers in the different categories of data.

Tables 1 and 2 about here

Analysis Strategy

Ordinary least square (OLS) regression procedures are used to estimate the multivariate models of egalitarian attitudes. This technique is applied using the dependent variable as a continuous variable with the assumption that the higher the value on the scale (from 1-4), the more egalitarian the attitude, thereby ordering it from lower to higher even though there is no numeric precision. Nested models are tested, introducing sets of different control variables (individual levels, parental characteristics, childhood neighborhood characteristics and finally interaction effects) to see how the effect of group participation and educational attainment on egalitarian attitudes is affected by the control variables and the interaction effects.

Additionally, logistic regression is used to estimate egalitarian attitudes and to test if the results are consistent in their direction with the OLS estimates. A summary measure of the dependent variable "male decides" is examined, with the categories of "strongly

agree" and "agree" collapsed together to specify non egalitarian attitudes (coded 0 – 60.79%) while "disagree" and "highly disagree" are collapsed together to specify egalitarian attitudes (coded 1- 39.21%). The same controls are examined in this analysis as well.

4. Results

Findings from the OLS Regression

The estimates of the effects of group participation and educational attainment on egalitarian gender attitudes related to decision-making at the household level are presented in Table 3. I test nested models and the incremental F tests for the control variables - gender, birth cohort and caste variables are statistically significant indicating the fit of those variables in the regression model. For parental and childhood neighborhood characteristics it is not significant but since, theoretically, I expected the latter variables to also have had some influence on egalitarian attitudes of the respondents, I leave them in the subsequent models.

Table 3 about here

The analysis is initiated by estimating the effects of the independent variables – participation in groups ever and educational attainment – on egalitarian attitudes in model 1. We find that for respondents who ever participated in group activities, their probability of being more egalitarian increases by 0.181 units, controlling for the effects of education, at significance levels of 0.001. For every additional year of education received by the respondent their probability of having more egalitarian attitudes increases by 0.052 units while controlling for their participation in groups and this estimate is also

quite significant (p<0.001). Together they are able to account for almost 8% variance in egalitarian attitudes.

In the second step, a set of individual level controls - gender, birth cohort and caste/ethnicity are introduced and presented in model 2. The third step presents the estimates of adding controls that are related to parental characteristics in model 3 where two variables were tested - whether mothers and fathers of the respondents ever went to school, and whether they ever held paid jobs when the respondents were young. The fourth step of the analysis presents additional estimates from the effects of two neighborhood characteristic when the respondents where 12 years old – whether their neighborhood had any development activities and whether there were any women's groups.

In models 2, 3 and 4, the results are fairly consistent where the addition of gender and caste/ethnicity explain some of the effects on egalitarian attitudes that are substantially significant (at p<0.001). While women (compared to men) have more positive egalitarian attitudes controlling for other factors, the Lower Caste Hindus, and the Hill and Terai Tibeto-Burmese people have less egalitarian attitudes compared to the Higher Caste Hindus. The High Caste Hindus are the most educated group in the sample yet traditionally they were also the least egalitarian among the different caste groups in the country where women had to adhere to strict rules of ritual purity, restricted mobility confined more within the households as a mark of their high status (Acharya and Bennett, 1981). The fact that the Newars are also quite similar to the High Caste Hindus, since they are the second ethnic group that has higher educational attainment even though there are wide variations in many of the social and economic indicators within the diversified

Newar ethnic group. The addition of these control variables explains some of the effects on egalitarian attitudes but those changes on the estimates of the effects of group participation and educational attainment on egalitarian attitudes are not very high.

Compared to the reference category, the more recent birth cohort (ages 24-35), cohort 3 is less egalitarian as expected, but the results are not statistically significant indicating little differences within the different birth cohorts. This could be due to the fact that the most educated group lies within the most recent cohort (ages 15-24) which has been dropped for the study. Model 4 provides evidence that 11.03% of the variance in egalitarian attitudes can be attributed to a person's participation in groups and education levels controlling for a number of factors.

The last two models 5 and 6 (Table 3) present estimates of the effect on egalitarian attitudes testing for interaction effects of gender and educational attainment, and gender and participation in groups. Since gender differences are quite wide in Nepal, I estimated that interaction effects of gender on education and on group participation might prevail but the results show that such effects are not statistically significant. Yet even then, when I ran separate models to estimate the effects for males and females (results not shown) it was interesting to find the effects were greater for males than for females, indicating that educational attainment and group participation had stronger effects on male egalitarian attitudes.

Findings from the Logistics Regression

Table 4 presents the results of the logistic regression where the results, though not directly comparable with the OLS regression, do indicate results in the same direction.

Table 4 about here

For every person who participates in group activities the odds of being egalitarian is 45% *higher* compared to those who did not participate in group activities, controlling for their education. For every additional year of education a person has their odds of having egalitarian attitudes *multiplicated* by 1.12. For instance, compared to someone with no education, a person with six years of education has an odds ratio of 97% *higher* of having egalitarian attitudes. It is interesting to note that only six years of education increases the odds of being egalitarian by almost 100%. Also being a Lower Caste Hindu, Hill Tibeto-Burmese or a Terai Tibeto-Burmese have *lower* odds (0.55, 0.55 and 0.49 times respectively) of having egalitarian attitudes compared to the High Caste Hindus. Parental characteristics and childhood neighborhood characteristics are not significantly associated with gender attitudes and birth cohorts are also not significantly associated.

5. Conclusions

The key research question for this study was to better understand the kinds of behavior at the individual and community levels which would bring in more egalitarian attitudes at the household levels. I find that men and women who have ever participated in groups and those who have more years of education have more egalitarian attitudes about decision making and that this is statistically a highly significant association when controlling for a number of individual, parental and childhood community characteristics. The results for the effect of group participation is quite relevant as it boosts policy efforts of service delivery, creating demand and advocating for rights and interests of poor and marginalized sections of the society, towards social inclusion and egalitarianism.

More relevant to policy feedback and program implementation would be evidence of the differential impact of the status of group membership (general member or an executive member) and the differential impact of participation in different types of groups. This was beyond the scope of this paper due to limited number of observations per different types of groups and no data about the types of membership. A second wave of this study can also provide opportunities for measuring changes in egalitarianism over the years and with some additional data a better understanding of how participation in group activities can lead to social attainment and egalitarianism.

References

- Acharya, Meena and Lynn Bennett. 1981. <u>The Status of Women in Nepal: The Rural Women of Nepal.</u> Kathmandu, Nepal: Tribhuvan University.
- Axinn, William G. and Jennifer Barber. 2001. <u>Mass Education and Fertility Transition</u>. *American Sociological Review*, Vol. 66, No. 4 (August 2001), 481-505.
- Axinn, William G. and Arland Thornton. 1996. "The Influence of Parents' Marital Dissolutions on Children's Family Formation Attitudes." <u>Demography</u>, 33(1):66-81.
- Barber, J., G. Shivakoti, W. G. Axinn and K. Gajurel. 1997. <u>Sampling Strategies of Rural Settings: A Detailed Example from the Chitwan Valley Family Study Nepal.</u>
 Nepal Population Journal 6(5): 193-203.
- Barber, Jennifer S., L. D. Pearce, I. Chaudhary and S. Gurung. 2001. <u>Voluntary</u> Associations and Fertility Limitation. *Social Forces*, 80(2):1269-1301.
- Beutel, Ann M. 2002. <u>Gender, Social Change and Educational Attainment</u>. *Economic Development and Cultural Change*, 51(1):109-134.
- Biggs, S.D., S.M. Gurung and D. Messerschmidt. 2004. An Exploratory Study of Gender, Social Inclusion and Empowerment through Development Groups and Group-Based Organizations in Nepal: Building on the Positive. (Version 2, November), Report submitted to the Gender and Social Exclusion Assessment (GSEA) Study, Kathmandu: DfID and The World Bank.
- Bista, D. B. 1972. People of Nepal. Kathmandu, Ratna Pustak Bhandar.
- Caldwell, John C. 1982. Theory of Fertility Decline. Academic Press Inc. (London) LTD.
- Chitwan Valley Family Survey. 1996. Codebooks and Questionnaires for Individual Survey and Life History Calendar. http://perl.psc.isr.umich.edu/indivdata.htm
- Cleland, John and J. Hobcraft (Ed.). 1985. Reproductive Change in Developing Countries: Insights From the World Fertility Survey. Oxford University Press.
- Eighth Plan (1992-1997), Ninth Plan (1997-2002), <u>Tenth Plan (2002-2007)</u>, His Majesty's Government of Nepal, National Planning Commission, Kathmandu, Nepal.
- Hashemi, S.M., S.R. Schuler and A.P. Riley. 1996. <u>Rural Credit Programs and Women's Empowerment in Bangladesh</u>. World Development, Vol. 24, No. 4, pp 635-653.

- Malhotra, Anju and Mark Mather. 1997. <u>Do Schooling and Work Empower Women in Developing Countries? Gender and Domestic Decisions in Sri Lanka</u>. Sociological Forum, Vol. 12, No. 4.
- Schuler, S.R., S.M. Hashemi and A.P. Riley. 1997. <u>The Influence of Women's Changing Roles and Status in Bangladesh's Fertility Transition: Evidence from a Study of Credit Programs and Contraceptive Use</u>. World Development, Vol. 25, No. 4, pp 563-575.
- Thornton, Arland. 1991. <u>Influence of the Marital History of Parents on the Marital and Cohabitational Experiences of Children</u>. American Journal of Sociology, 96 (4):868-894
- Thornton, Arland. 2001. <u>The Developmental Paradigm, Reading History Sideways, and Family Change</u>. Demography, 38(4): 449-465.
- Thornton, Arland. 2005. <u>Reading History Sideways: The Fallacy and Enduring Impact of the Developmental Paradigm on Family Life</u>. University of Chicago Press, 344 p. Series: (PD) Population and Development Series.
- Thornton, A. and Hui-Sheng Lin. 1994. <u>Social Change and the Family in Taiwan.</u> Chicago, University of Chicago Press.
- United Nations. 1994. "Programme of action of the United Nations International Conference on Population and Development", in <u>Gender Equality, Equity and Empowerment of Women</u>, Chapter 4. New York: United Nations.

Tables

Table 1: Descriptive Statistics of Measures Used in the Analysis of Effects of Group Participation and Educational Attainment on Gender Role Attitudes at Home ("A man should make most of the decisions in the household") (N=2851).

Variables	Coding	Mean	Mean SD Mi		n Max	
Gender Attitudes	1=strongly agree,	2.07	0.86	1	4	
	4=strongly disagree					
Participation in Groups	1=yes, 0=no	0.18	0.38	0	1	
Educational Attainment	0=no education,	3.26	3.97	0	10	
	10=grade 10 & above					
Gender	1=female, 0=male	0.50	0.50	0	1	
Birth Cohort						
Born 1962-71(ages 25-34, cohort 1)	1=yes, 0=no	0.43	0.49	0	1	
Born 1952-61(ages 35-44, cohort 2)	1=yes, 0=no	0.33	0.47	0	1	
Born 1942-51(ages 45-54, cohort 3)	1=yes, 0=no	0.24	0.43	0	1	
Caste/Ethnicity						
High Caste Hindus	1=yes, 0=no	0.46	0.49	0	1	
Low Caste Hindus	1=yes, 0=no	0.12	0.32	0	1	
Newars	1=yes, 0=no	0.18	0.38	0	1	
Hill Tibeto-Burmese	1=yes, 0=no	0.06	0.24	0	1	
Terai Tibeto –Burmese	1=yes, 0=no	0.18	0.39	0	1	
Parental Characteristics						
Mother's education	1=yes, 0=no	0.02	0.15	0	1	
Father's education	1=yes, 0=no	0.19	0.39	0	1	
Mother's work for pay	1=yes, 0=no	0.18	0.39	0	1	
Father's work for pay	1=yes, 0=no	0.41	0.49	0	1	
Neighborhood Childhood						
Characteristics						
Presence of Development Programs	1=yes, 0=no	0.27	0.44	0	1	
Presence of Women's Groups	1=yes, 0=no	0.08	0.28	0	1	

Table 2: Participation in Types of Groups by Gender, Chitwan, 1996.

	Types of Groups	Males	Females	Total
	Group Member Ever	327	187	514
1.	Women's Groups	9	114	123
2.	Youth Groups	43	4	47
3.	SFDP Groups	16	9	25
4.	Credit Groups	146	54	200
5.	User's Groups	37	2	39
6.	Other Agriculture Groups	84	15	99
7.	Other Groups	113	13	126

Table 3: Effects of Group Participation and Educational Attainment on Gender Role Attitudes, Chitwan.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Dependent Variable: "A man should make most of the decisions in the household" (1-4: Strongly Agree - Strongly Disagree)					Gender and Group Participation	Gender and Education
Independent Variables					1 unit putton	
Participation in Groups Ever (Yes, No)	.181*** (4.23)	.118** (2.74.19)	.117** (2.70)	.117** (2.69)	0.176*** (3.20)	0.116** (2.67)
Educational Attainment (0-10)	.052*** (12.54)	.051***	.052*** (10.01)	.052***	.051*** (9.73)	0.052*** (9.87)
Control Variables	(12.54)	(10.00)	(10.01)	(2.00)	(7.73)	(7.67)
Gender (Female=1)	-	.155*** (4.39)	.156*** (4.34)	.154*** (4.25)	.176*** (4.59)	0.154*** (4.27)
Birth Cohort^		(1.57)	(1.51)	(1.23)	(1.57)	(1.27)
Born 1951-1961 (ages 35-44, Cohort2)	-	.016 (0.45)	.019 (0.46)	.018 (0.47)	0.015 (0.40)	0.019 (0.52)
Born 1941-1952 (ages 45-54, Cohort3)	-	072 (-1.73)	072 (-1.71)	.072 (-1.68)	-0.078 (-1.82)	-0.072 (-1.68)
Caste/Ethnicity^		(1.75)	(1.71)	(1.00)	(1.02)	(1.00)
Lower Caste Hindu (Yes, No)	_	191***	187***	187***	-0.186***	-0.187***
Do Wel Cubic Illian (100, 100)		(-3.63)	(-3.52)	(-3.50)	(-3.49)	(-3.49)
Hill Tibeto-Burmese (Yes, No)	_	191***	187***	187***	-0.186***	-0.188***
(,)		(-4.35)	(-4.21)	(-4.22)	(-4.17)	(-4.22)
Newars (Yes, No)	_	.017	0.125	.124	0.119	0.123
		(1.87)	(1.92)	(1.91)	(1.82)	(1.90)
Terai Tibeto-Burmese (Yes, No)	-	298***	302***	303***	-0.303***	-0.303***
		(-6.54)	(-6.59)	(-6.6)	(-6.61)	(-6.61)
Parental Characteristics						
Mothers Schooling (Yes, No)+	-	-	.151	.153	-0.146	-0.154
			(-1.41)	(-1.43)	(-1.37)	(-1.44)
Father's Schooling (Yes, No) +	-	-	.019	.017	0.021	0.018
			(0.44)	(0.40)	(0.49)	(0.42)
Mother's paid work (Yes, No)+	-	-	.022	.022	0.024	0.02
			(0.50)	(0.51)	(0.55)	(0.51)
Father's paid work (Yes, No)+	-	-	036	036	-0.036	-0.037
			(-1.05)	(-1.07)	(-1.05)	(-1.06)
Childhood Neighborhood Characteristics				002	0.005	0.002
Dev. Programs (Yes, No)+	-	-	-	.003	-0.005	-0.002
W(V N-)				(-0.07)	(-0.13)	(-0.05)
Women's Groups (Yes, No)+	-	-	-	037	0.038	0.037
Interaction Effects				(.65)	(0.67)	(0.66)
Interaction Effects Gender and Group Participation					0.145	
Gender and Group Farticipation	-	-	-	-	(1.74)	-
Gender and Education	_	-	-	_	(1.74)	0.267
Gender and Eddeation	_	_	_			(0.73)
N	2,851	2,851	2,851	2,851	2,851	2,851
R-Square	0.0764	0.103	0.1102	0.1103	0.1112	0.1105

Notes:
^Reference Groups are Upper Caste Hindus and Cohort1 (ages 25-34).

T-ratios in parenthesis.

^{*}p<0.05 **p<0.01 ***p<0.001

Table 4: Logistic regression estimates of the influence of group participation and educational attainment on gender role attitudes in Chitwan (n=2,851).

Characteristics	Odds Ratio	Z Statistics						
Independent Variables								
Participation in Groups (Yes, No)	1.44***	3.29						
Educational Attainment (0-10)	1.12***	8.28						
Control Variables								
Gender (Female=1)	1.16	1.51						
Birth Cohort^								
Born 1951-1961 (ages 35-44, Cohort2)	1.06	0.64						
Born 1941-1952 (ages 45-54, Cohort3)	0.89	-0.93						
Caste/Ethnicity^								
Lower Caste Hindu (Yes, No)	0.55***	-4.12						
Hill Tibeto-Burmese (Yes, No)	0.55***	-5.02						
Newars (Yes, No)	1.28	1.50						
Terai Tibeto-Burmese (Yes, No)	0.49***	-5.72						
Parental Characteristics								
Mothers Schooling (Yes, No)	0.84	-0.62						
Father's Schooling (Yes, No)	1.06	0.53						
Mother's paid work (Yes, No)	1.04	0.36						
Father's paid work (Yes, No)	0.97	-0.33						
Childhood Neighborhood Characteristics								
Dev. Programs (Yes, No)	1.08	0.75						
Women's Groups (Yes, No)	1.00	0.01						
N	2,851							
Chi-square	313.76							
Degrees of Freedom	15							

Notes:

Table 5: Percentages of Egalitarian Attitudes by Education, Group Member Ever and Gender

Gender Attitudes	Education		Group Mei	mber Ever	Ger	Gender	
Male Decides	No	Yes	No	Yes	Male	Female	%
Strongly Agree	61.95	38.05	87.74	12.26	52.83	47.17	100
Agree	60.08	39.92	87.03	12.96	40.18	59.82	100
Disagree	39.76	60.24	73.49	26.51	53.56	46.44	100
Strongly Disagree	29.17	70.83	75.00	25.00	62.50	37.50	100
n	1,501	1,350	2,337	514	1,418	1,433	2,851

[^]Reference Groups are Upper Caste Hindus and Cohort1 (ages 25-34).

^{*}p<0.05 **p<0.01 ***p<0.001