Results of Gender Inequality Perception Survey for Science and Engineering Professionals (Men) in Nepal

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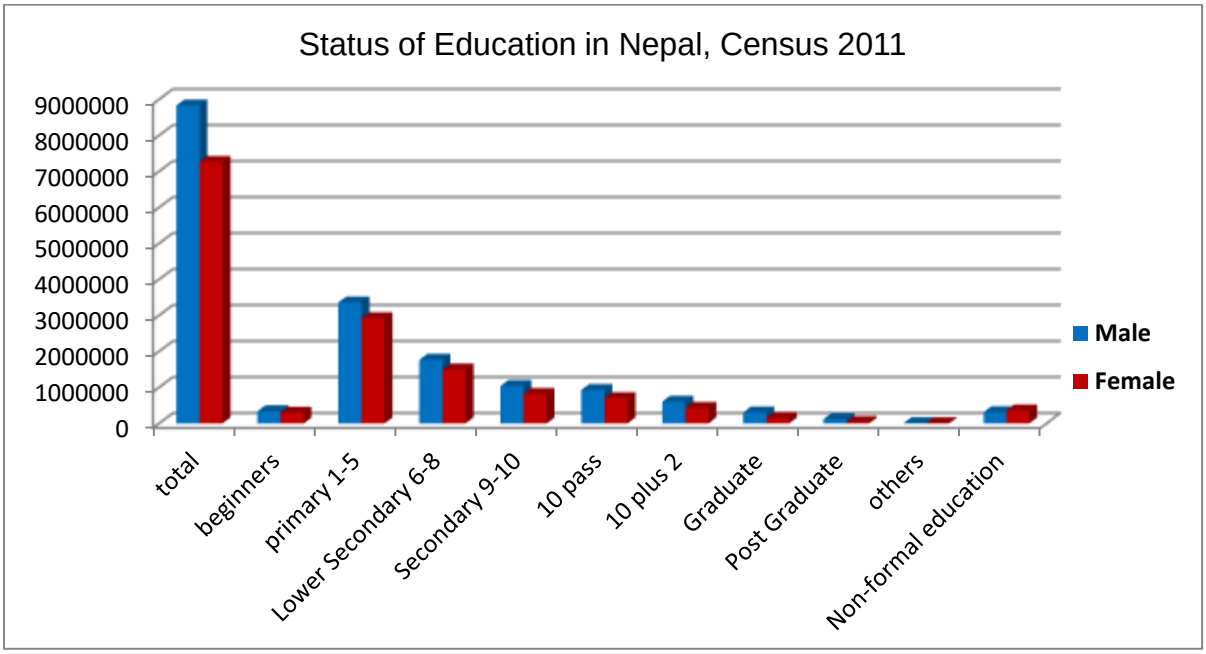
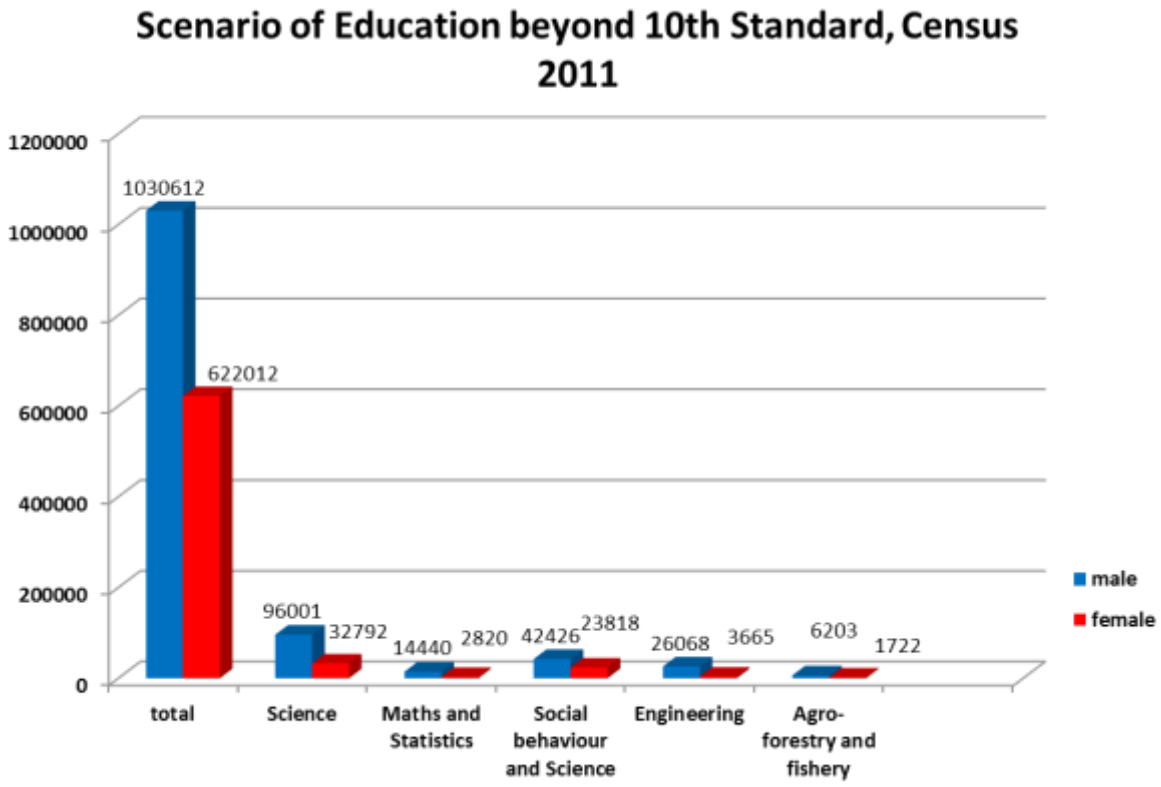
1. INTRODUCTION

The overall education scenario of women is more encouraging than past several decades. National Population Census 2011 shows that female literacy rate (for population aged 5 years and above), as compared to that in 2001, has reached 57.4% (7,832,496) with overall literacy rate 65.9% (17,459,878). Close to half of the literate women have at least a primary level of education, however, the number of literate women attaining higher levels of schooling tend to gradually decrease. Though, the school level enrolment of female is slightly higher (50.5% as female population is 52% of the total) in early years of schools, it starts decreasing once they start attaining higher levels - university level enrolment of female students is 45.9% (MoE, 2012).



In engineering field, number of student's enrolment is increasing remarkably in the last decades because of involvement of private sector, but again the enrolment of female students is still meager. The MoE (2012) reported that female enrolment in engineering is only 17.4% of total enrolment of 15,841 students. Similarly, the figure of professional female engineer is even poor - only 13% (2,889) out of total engineers registered (22,087) at Nepal Engineering Council till July 2013 (NEC, 2014).



Barriers contributing to low presence of women in STEM include generational patriarchal norms and stereotyping (STEM is for boys), societal norms and values (women being home-makers), difficulty in managing work-life balances, lack of female role models in these fields.

The Government of Nepal has the policy of including at least 33% (of 45% reservation seats) women in its public service. Some of the non-governmental sectors, *e.g.*, Swiss Agency for Development and Cooperation (SDC) have made efforts to include women engineers in workforce through affirmative action, such as providing internships for young women engineering graduates. Regardless of these efforts, even the lesser numbers of women engineers in their career are affected due to family barriers after marriage, not being able to maintain work-life balances, women often tend to change their field of study from engineering to other social sciences in post graduate levels. Therefore, it is important, that awareness of gender inequality is brought out among men too, so that they understand the kind difficulties and barriers that women scientists and engineers face during their career paths.

In this respect, Women in Science and Engineering in Nepal (WISE-Nepal) in association with Korean Association of Women Scientists and Engineers, initiated a survey among men engineers and scientists to see the perceptions of men on gender inequality.

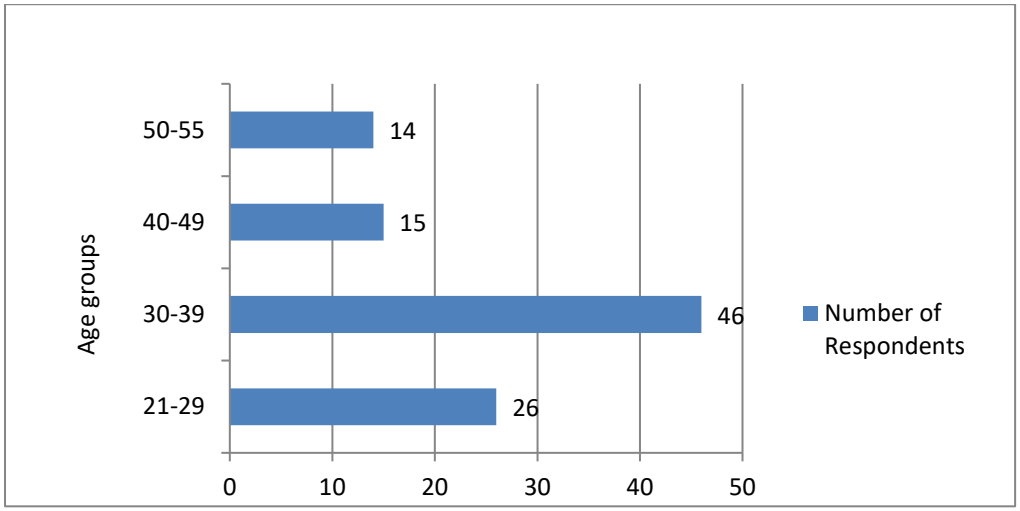
2. OBJECTIVES

The objective of this study (survey) was to understand the perceptions of men on gender inequality in Science, Technology, Engineering and Mathematics (STEM) in Nepal. The

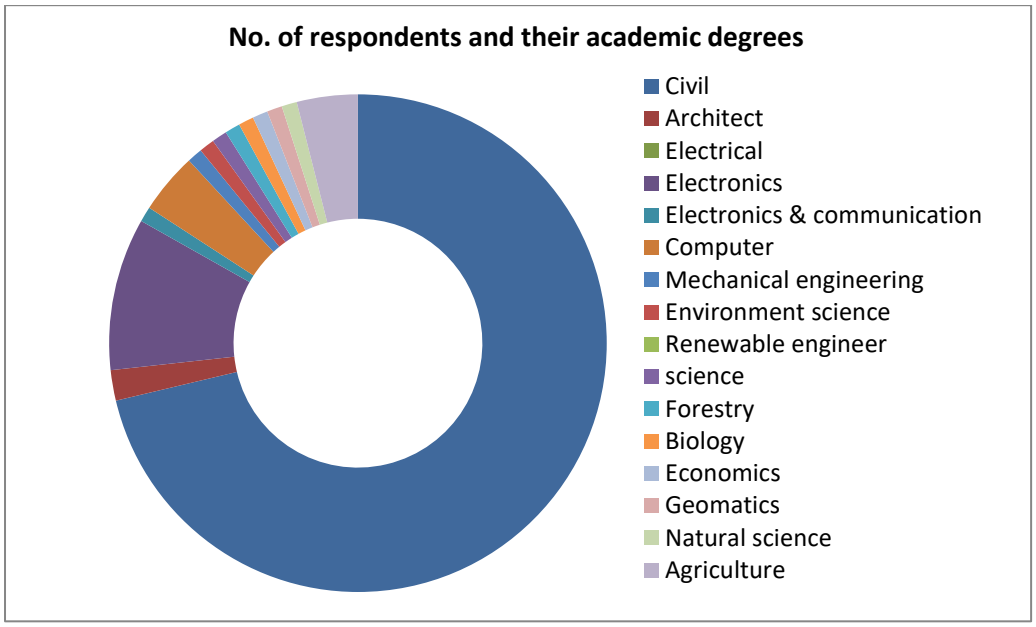
study is conducted as a part of understanding the levels of gender inequality across countries in the Asia Pacific region.

3. METHODOLOGY AND LIMITATIONS

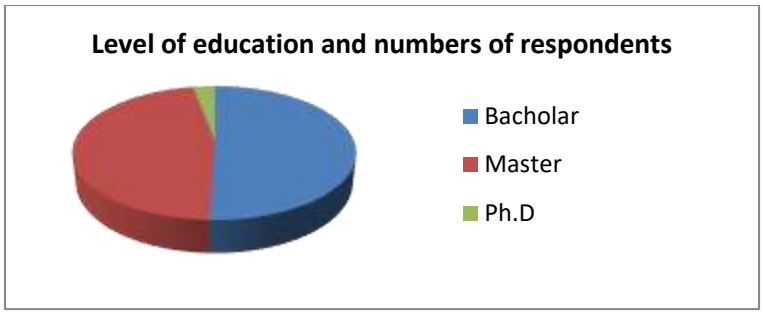
The study used the close-ended structured questionnaire. The respondents gave their perception on the questionnaire via e-mail. Total number of respondents was 101 and they were purposively selected. Their ages ranges from 21 to 55 years old - 45% of the respondents were from the age group 30-39 years followed by 21-29 years old (25%), and 14% of 40-49 years of age group. Rest (13%) are the respondents above the age of 49 years. All respondents were male.



Most of the respondents were civil engineers (70%) followed by electronic engineers (9%). Most of these engineers are working in the governmental and non-governmental service organizations. Very few are associated with universities as researchers and few are self-employed and have their own consultancies.



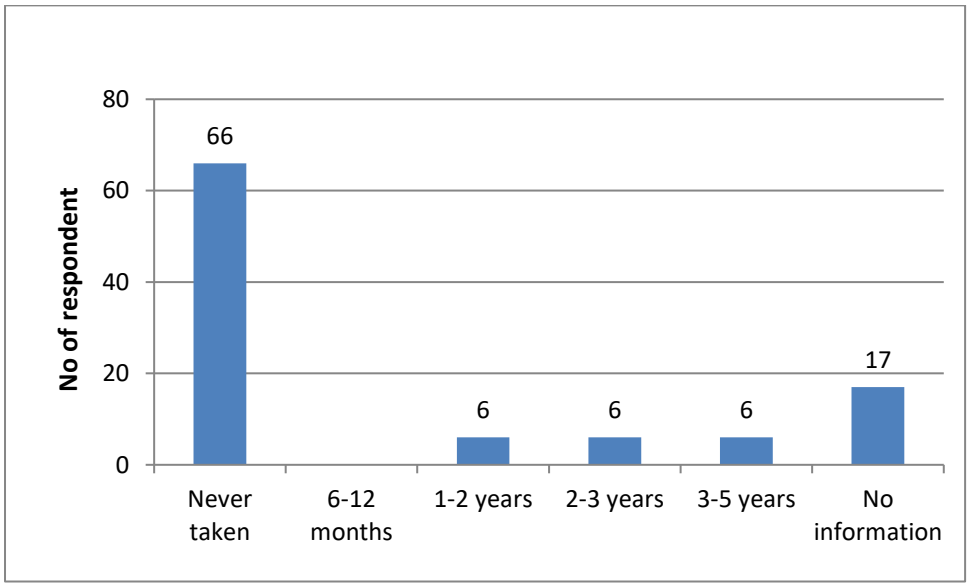
In terms of levels of education, majority of respondents have bachelors degree (55%), while most of others (46%) have master's degree in different field of study including economics, and few (2%) of them have doctorate degree, and who are involved in researches.



4. RESULTS WITH RESPECT TO THE INDICATORS OF QUESTIONNAIRES

This section provides the information on the results of survey, basically, it gives the pictures of the perceptions on the various indicators used in the survey.

4.1 Duration of leave taken in between scientific activities



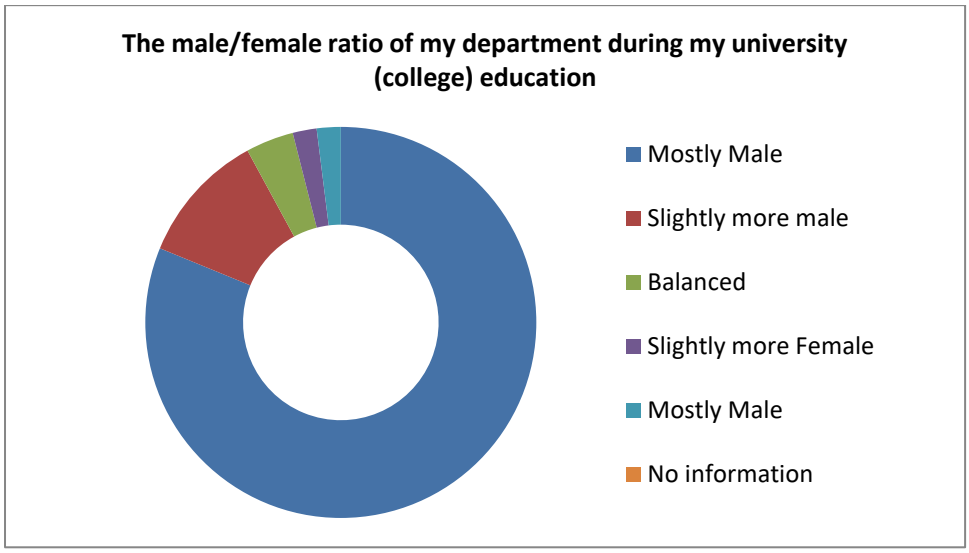
Most of the respndents have not taken leave from the period of their study in the colleges to their engineering practices in their career. Only 12 % of respondents have taken leave from years ranging from one to five years while 16% of respondents have provided no information. This either means that they did not want to disclose their information on leave or they have not taken leave, or in between they are not employed.

4.2 Marital status

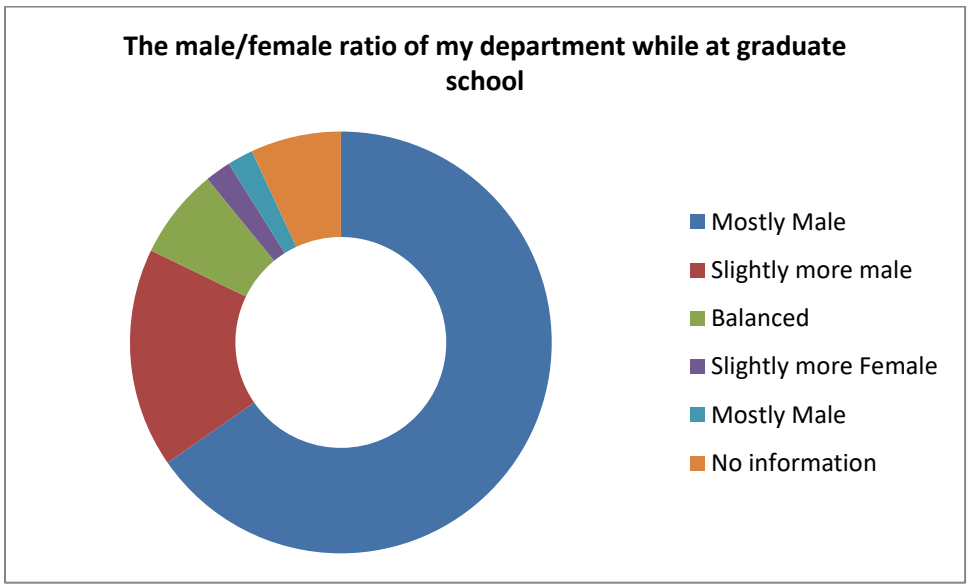
Most of the respondents (68%) are married with children, 31% are still single and 33 % of the men respondents have their spouses working.

4.3 Pursuing educational path and gender

About 80% of the respondents have revealed that there were less female students in their classes. This proves that women in STEM studies are still far less than men.

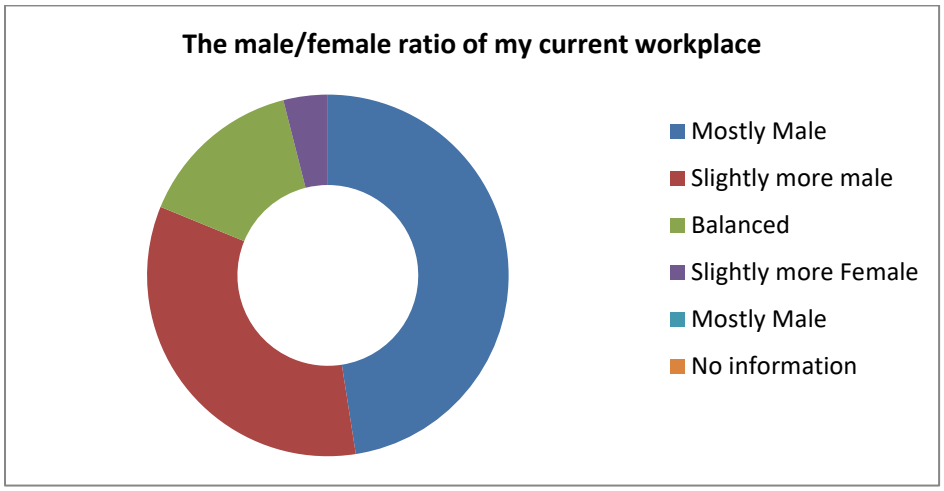


It is still the men who pursue masters more than women. The ratio is slightly better than in college level education, number of men still dominates the class.

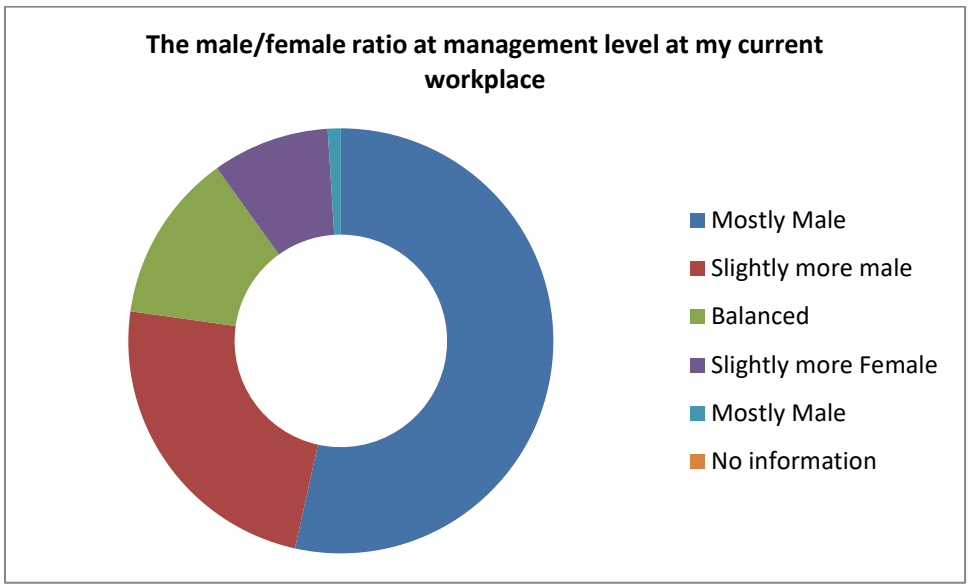


Similarly, 47% of the respondents reported that there are more men in their work places. This still indicates that gender inclusion in STEM work career still needs to be improved.

While there are lesser graduates, it is obvious that there will be lesser women in the STEM workplaces.

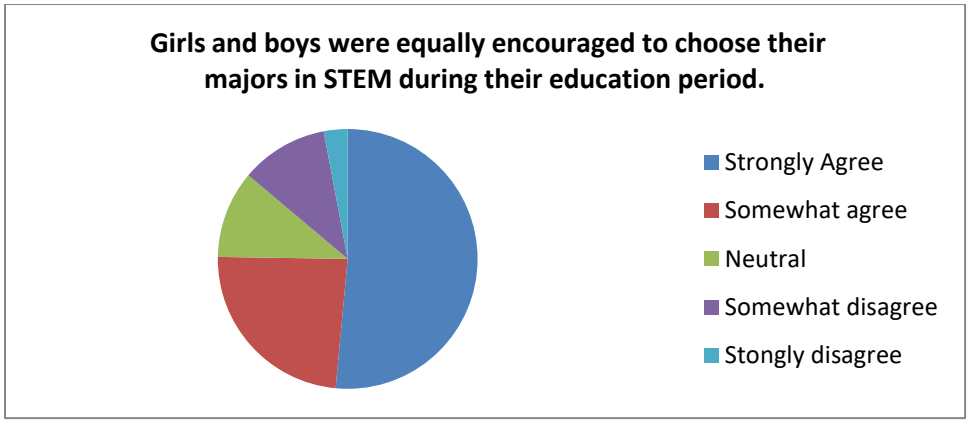


Likewise, there are also lesser female as reported at the management level of the workplaces. About 76% of the respondents say that the management positions in the workplaces are held by mostly men.

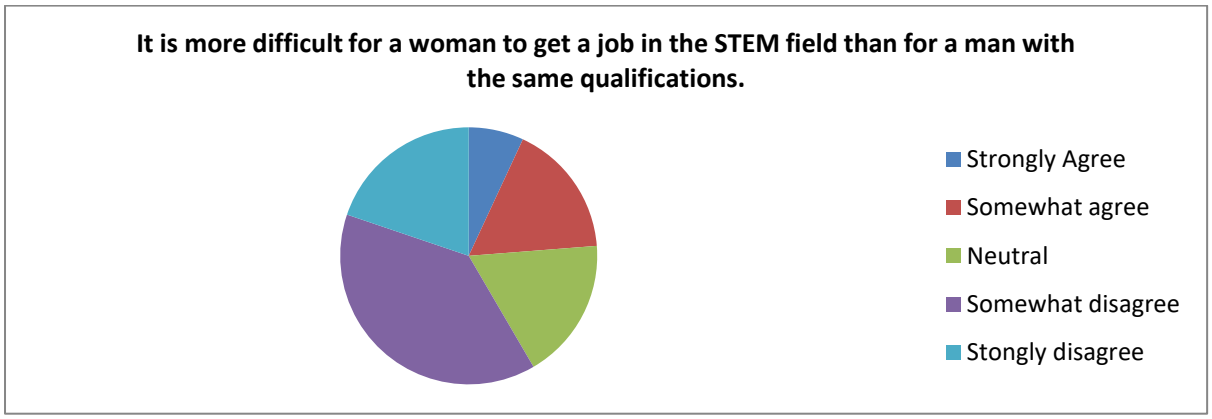


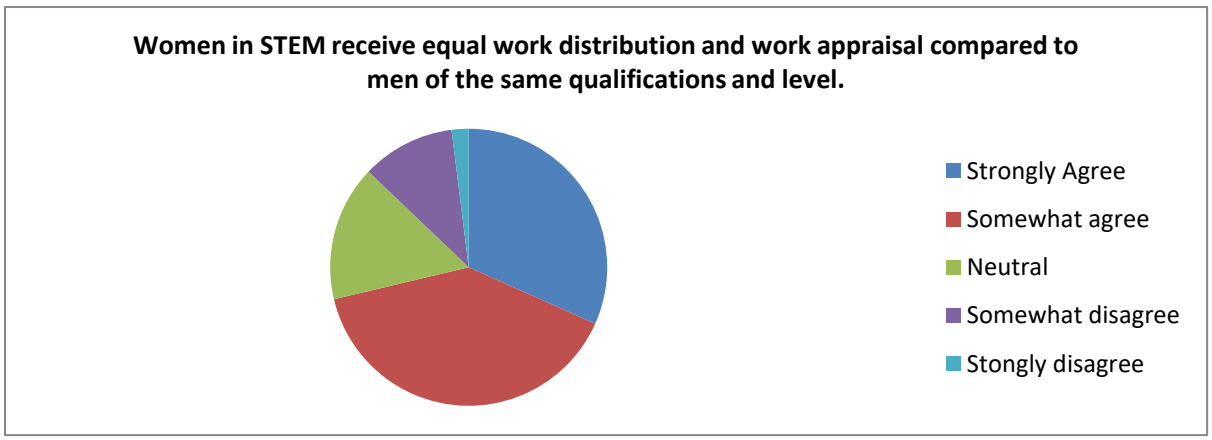
4.4 Perception of 'gender barrier' in STEM field

While the men respondents strongly feel that there should be no barriers for girls in choosing their fields of study, the above results in 4.3 depict that the barriers still exists. There are still 13% of men, who do not agree that girls are given equal opportunities to choose their field of studies. It is therefore necessary that the stereotyping in STEM fields of study made for boys need to change.

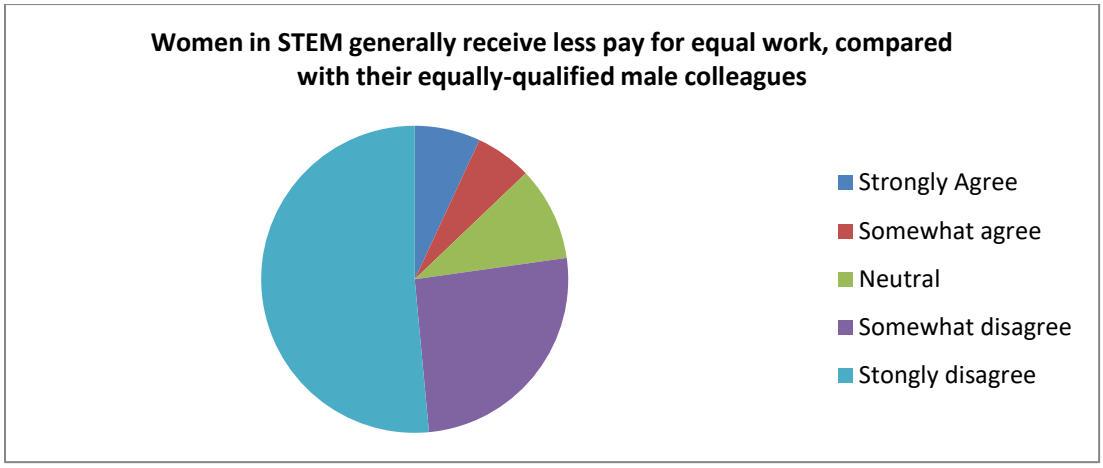


Surprisingly, 23% of the respondents believe that it is difficult for a woman to get a job in the STEM field than for a man with the same qualification. This shows that there is no realization among men about whether this happens or even why this happens. While more than 70% of the respondents feel that there is no discrimination against women in the work-places while evaluating their performances and making appraisals. This is indeed a sign of gender equality and no-discrimination being practiced at the workplaces.



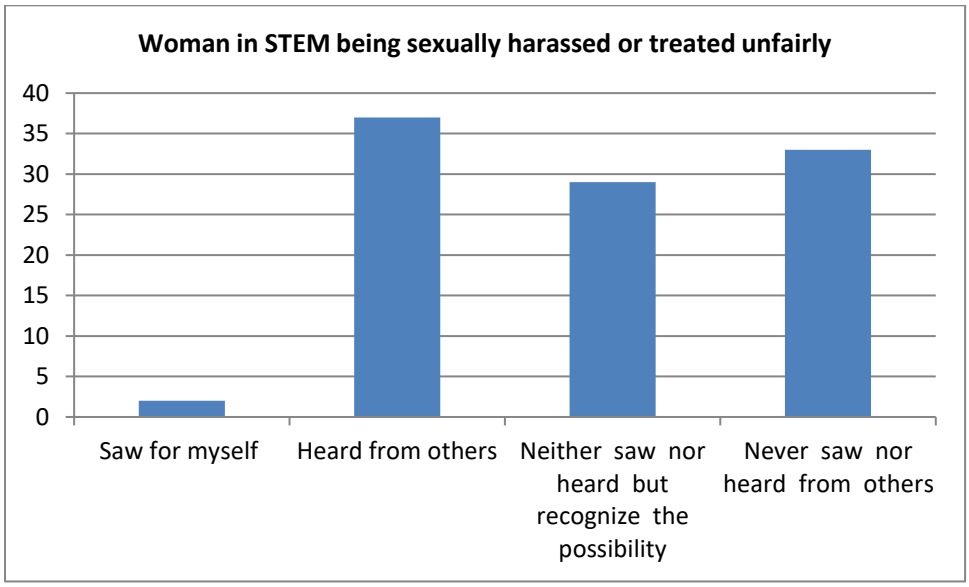


While most of the men feel that there is no discrimination against women in the workplaces in terms of their performance approasials, it is also very less men respondents (12%) feel that women are less paid in the STEM field as compared to equally qualified men. Although this is a positive indication, there are still discrimination that women face in terms of earning as par at men.



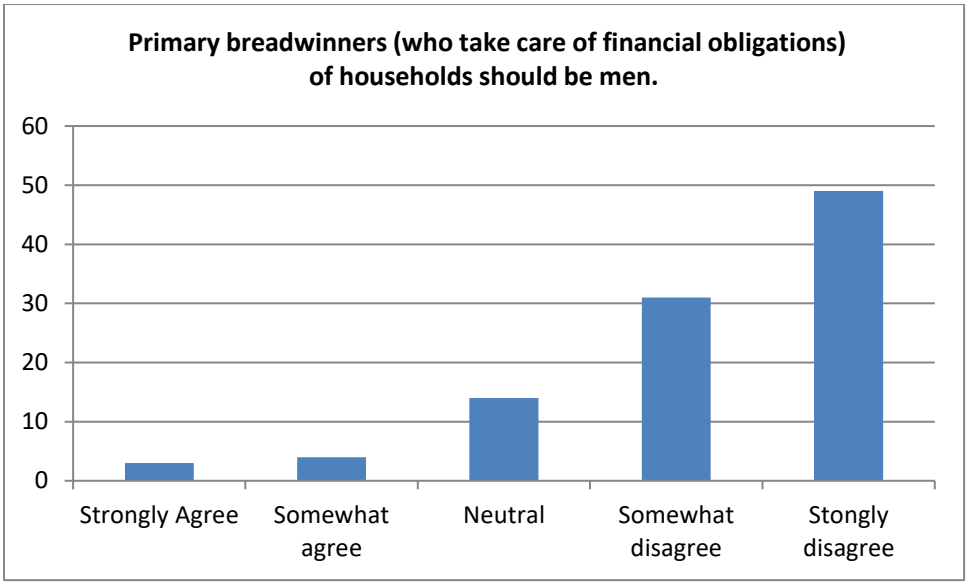
4.5 Experience of 'gender barrier' in STEM field

It was reported that although more than 50% of respondents reported that they have never heard or saw women being sexually harassed in the STEM fields of study or works. About 36% of men reported that they have heard about women being harassed from the others, while only 2 % have actually experienced it.



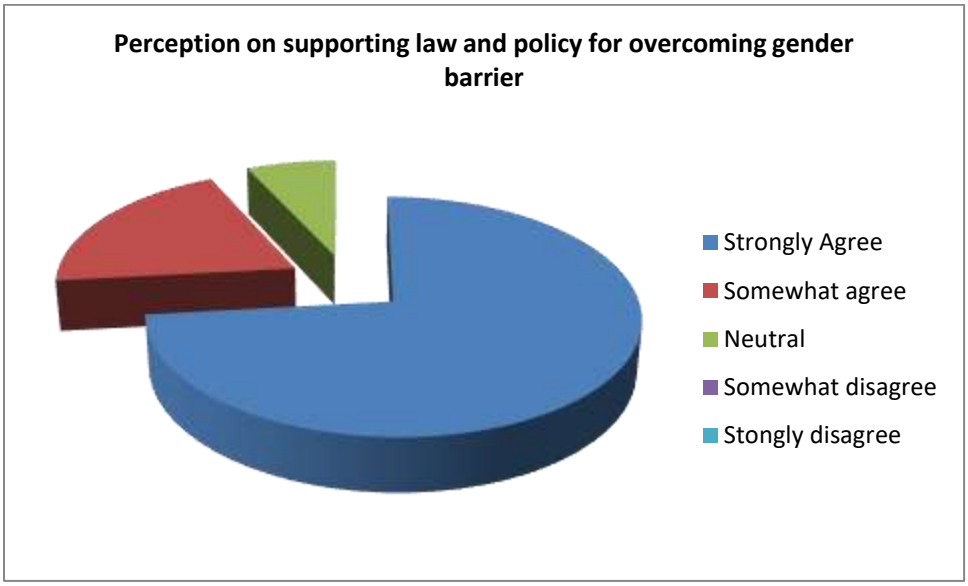
4.6 Perception of 'gender equality'

It was reported that 79% of the respondents below believe that women should be equally contributing to household financial obligations. They believe that it is not only the men who should be the primary bread-winners of the households. Majority of men believes that gender equality will be fully achieved only if women are given equal opportunities as men. Very few of the men, though still have perceptions that women are born to have a way of caring children that men are not capable of in the same way and they also believe that in order to maintain the order and peace of a family, the husband should have greater power and authority than the wife. Therefore, although there are progressive thoughts amongst most of the men, still some orthodoxical values among few men exist. Nevertheless, this is progressive and can be well appreciated.



4.7 Perception of supporting laws and policies for 'gender equality'

More than 70% of the men responded that they support having laws and policies to overcome gender barriers. However, it is not only the laws and policies, but actions that are required in changing behaviors of men and women to make the policies into practices for achieving gender equality,



5. CONCLUSION AND RECOMMENDATIONS

The survey results showed that there is much progresses in the perceptions of men regarding gender equality. If this is true, then it is for the better and achieving gender equality is easier. However, sometimes perceptions do not always reflect the reality. The reality is that there is a gender gap (as per the statistics) in the inclusion of women in STEM fields (both in academics and in career). So there is a long way to go before we have equal

numbers of men and women in the STEM field as proportionate to existing female population ratio.

The WISE – Nepal (Women in Science and Engineering in Nepal), thus takes a step to educate and encourage boys and girls in the high schools as first step to address this gender gap in STEM studies. It will continue to do so, with the future ambition of establishing a scholarship fund for women intake in engineering in the university. In the medium term, WISE Nepal will identify Nepali women role models in STEM who could give career guidance and counseling for women.

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