Appendix A

Details of the impact of the UNV programme

The assessment of the impact of the UNV programme was made based on the following criteria: changes in human capital, changes in social capital, and changes with respect to the UNDP's four priority areas, that is, jobs, poverty, the environment, and women's lives.

Changes in human capital

To assess changes in human capital, respondents were asked to list new skills or knowledge that they, or others in their communities or workplace, had learned. The responses of the 169 users and beneficiaries of the programme to the question whether the Volunteers had taught them any new skills or knowledge are shown in Figure A.1. The total number of missing responses was 4 out of 169. These 4 respondents, 2.4 per cent, gave "do not know" as an answer. Missing responses are not included in this graph, or any of the subsequent graphs.

9.7 per cent of the respondents indicated that the Volunteers had not taught them any new skills or knowledge, 12.7 per cent said that they had acquired one new skill or area of knowledge from the Volunteers. 24.2, 19.4, and 20.0 per cent, a total of 63.6 per cent, of the respondents indicated two, three, or four, respectively, as the number of new skills or areas in which they had learned new knowledge from the Volunteers. 10.3 per cent indicated five, 1.8 per

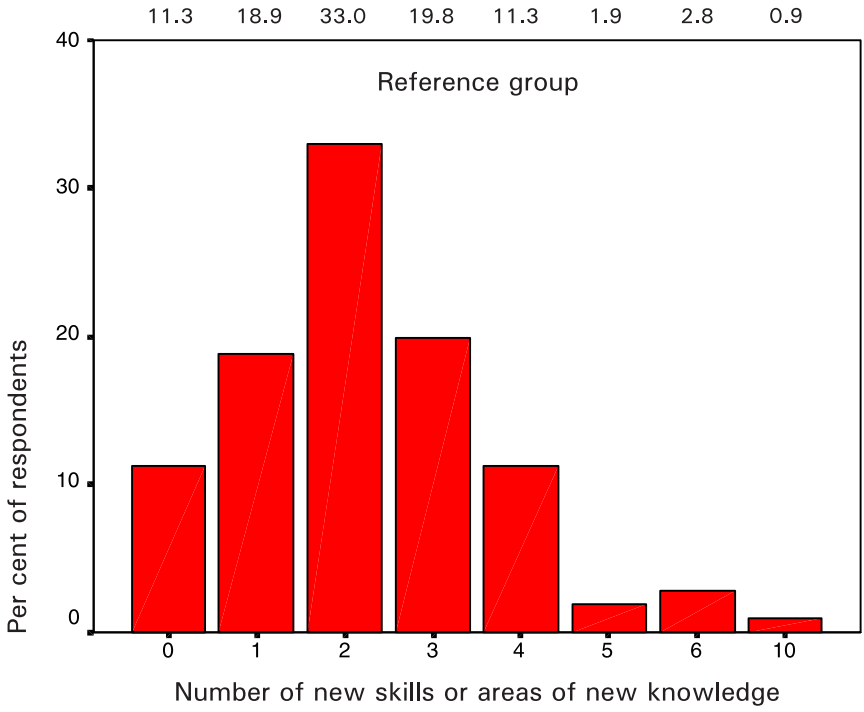
Figure A.1 Number of new skills or areas in which new knowledge was learned by the users and beneficiaries

cent indicated six, and another 1.8 per cent indicated eight as the number of new skills or areas in which they had acquired knowledge from the Volunteers.

The responses of the reference group to the corresponding question, that is, whether people in their ministry, department, project, or community had learned any new skills or knowledge over the last 5 to 10 years are shown in Figure A.2.

11.3 per cent of the respondents in the reference group indicated that they had not learned any new skills or knowledge, while 18.9 per cent said that they had learned one new skill or area of knowledge. 33.0, 19.8, and 11.3 per cent, a total of 64.1 per cent, of the respondents indicated two, three, or four, respectively, as the number of new skills or areas in which they had learned new knowledge. 1.9

Figure A.2 Number of new skills or areas in which new knowledge was learned by the reference group



per cent indicated five, 2.8 per cent indicated six, and 0.9 per cent indicated ten as the number of skills or areas in which they had acquired new knowledge. The total number of missing responses was 23, or 17.8 per cent out of a total of 129. 13 of these respondents had wrongly focused their response on an institution other than the one where the Volunteer concerned had worked, and their responses were therefore excluded. The other 10 respondents gave either no answer or responded "do not know" to the question.

Significance of results

Among the users and beneficiaries as well as in the reference group, approximately 10 per cent of all the respondents indicated that no

accumulation of skills or knowledge had taken place. Slightly more than one-third of the users and beneficiaries (37.0 per cent) and slightly more than a half of the reference group (51.9 per cent) indicated one or two as the number of skills learned or areas in which they had acquired new knowledge. Approximately half of the users and beneficiaries (53.3 per cent) and slightly more than one-third of the respondents in the reference group (36.8 per cent) indicated three or more as the number of new skills learned or areas in which they had acquired new knowledge. If the number of respondents are counted who gave four or more as the number of skills learned or areas in which they had learned new knowledge, these represented 33.9 per cent of the users and beneficiaries and 17.0 per cent of the reference group.

Among the users and beneficiaries, the average number of skills learned or areas in which they had learned new knowledge was 2.8, the median was 3 and the mode 2. In the reference group, the average was 2.2, the median was 2 and the mode 2. The difference in the average number of new skills or areas of knowledge learned in the two groups was statistically significant ($p = 0.013$). Based on these and the figures presented above, some more skills and knowledge appear to have been acquired among the users and beneficiaries compared to the reference group. It may, however, be that the differences in the number of new skills or knowledge learned reflect differences in the age, education, gender, or geographical location of the respondents, or something else rather than interaction with the Volunteers.

A multiple regression analysis was therefore performed to test if the interaction with the Volunteers could explain the differences in the number of new skills and knowledge learned by different respondents. Contact with the Volunteers and four other explanatory variables were included in the analysis: the age, gender, and education of the respondents as well as their geographical location. The linear combination of the five explanatory variables was significantly related to the number of new skills or knowledge learned: $F(5,264) = 12.70$, $p = 0.000$. The multiple correlation coefficient was 0.44, indicating that approximately 18 per cent of the variance

in the number of new skills or knowledge learned could be accounted for by the combination of the five explanatory variables. A statistically significant difference between the two groups of respondents could be found with respect to the geographical location of the respondents ($p = 0.000$). This result indicates that the number of new skills or knowledge learned outside the capital Kathmandu was greater than in the capital.

In terms of the number of new skills or knowledge learned, the difference between the respondents who had interacted with the Volunteers and those who did not have any contact with the Volunteers was not statistically significant ($p = 0.118$). A possible explanation could be that respondents in the reference group learned new skills and knowledge from individuals who in turn had acquired these through their interaction with the Volunteers, but this is not likely. The reason is that the skills and knowledge that the respondents in the reference group listed were, in most cases, different from those stated by the users and beneficiaries of the programme.

The multiple regression analysis presented above was also performed excluding cases pair-wise instead of list-wise, – list-wise was used as the default procedure in this study. The pair-wise exclusion procedure entails using all cases for which complete data exists for the pair of variables being correlated to compute the correlation coefficient on which, for instance, a regression analysis is based. The degrees of freedom are based on the minimum pair-wise number of observations. In this case the difference in the number of new skills or knowledge learned by the respondents who had contact and those who did not have any contact with the Volunteers was almost statistically significant ($p = 0.060$). Further analyses were therefore considered necessary before drawing any conclusions regarding the impact of the UNV programme on the transfer of skills and knowledge.

A simple factorial analysis of variance (ANOVA) procedure was used to assess the effect of the interaction between the respondents' age, education, gender, geographical location, and contact with the Volunteers on the number of new skills or knowledge learned. Three of the ten interaction effects were statistically significant: the inter-

action between the age and education of the respondents ($p = 0.047$), between the education and geographical location of the respondents ($p = 0.036$), and between the geographical location and the contact with the Volunteers ($p = 0.000$).

Of the three interaction effects, the last one is of most interest to this study, and formed the basis for performing a multiple regression analysis in which an interaction term in the form of geographical location times contact with the Volunteers was introduced. The age, gender, education, and geographical location of the respondents, and contact with the Volunteers were included as the other explanatory variables.

The linear combination of these variables remained significantly related to the number of new skills or knowledge learned, $F(6,263) = 12.95$, $p = 0.000$, and the explanatory power of the regression analysis increased with the introduction of the interaction term to $R = 0.48$ (compared to 0.44 without the interaction term), indicating that approximately 21 per cent (previously 18 per cent) of the variance in the number of new skills or knowledge learned could be accounted for by the combination of the explanatory variables.

The results of the regression analysis with an interaction term included indicated that the effect of the interaction between the geographical location and the contact with the Volunteers was statistically significant ($p = 0.001$). Further analyses included interpreting the significance of the interaction effect within a regression analysis framework using *t*-tests, as well as analysis of variance and *F*-tests for the different sub-groups of respondents that corresponded to the interaction between geographical location and contact with the Volunteers. The results of both analyses were very similar.

The average number of new skills or areas of knowledge learned by the users and beneficiaries of the programme in Kathmandu was smaller than the corresponding number in the reference group in Kathmandu, but the difference was not statistically significant ($p = 0.131$). In other areas of Nepal, however, the users and beneficiaries indicated a significantly greater number of skills and more new knowledge acquired than the reference group ($p = 0.001$). Users and beneficiaries of the programme in areas outside Kath-

mandu also indicated significantly more new skills or knowledge learned than the users and beneficiaries in Kathmandu ($p = 0.000$).

What the results above indicate is that the programme, in terms of transfer of skills and knowledge, appears to have been most effective in areas outside the capital Kathmandu. It may be that the types of jobs performed by the Volunteers in Kathmandu were quite different from those performed by the Volunteers outside the capital, or that the existing level of human capital to start with was higher in Kathmandu than in other areas. This does, however, not alter the basic finding that the programme seems to have been most successful in terms of human capital development in areas outside Kathmandu.

A review of the skills and knowledge transferred shows that the skills and knowledge acquired by the respondents were very different in terms of their nature and difficult to compare in terms of their importance. This confirmed the limitation of the number of new skills or knowledge as an indicator of human capital, which was known from the outset. It was, therefore, considered necessary to perform additional analyses before drawing any further conclusions regarding the impact of the work of the Volunteers on human capital accumulation.

To further analyse the impact of the UNV programme on human capital, a logistic regression analysis was performed. In this analysis the impact on human capital was considered *minor* if the respondents had indicated zero to two as the number of skills learned or areas in which they had learned new knowledge. The impact was considered *major* if the respondents had indicated three or more as the number of skills learned or areas in which they had learned new knowledge. The decision to group the responses in these two categories was made based on the nature of the skills and knowledge listed by the respondents and the frequency distribution of the responses. Five dichotomous covariates were included in the analysis: the age, gender, and education of the respondents, the geographical location, and contact with the Volunteers.

The *odds* of a major change in human capital is defined as the probability of a major change in human capital over the probability of a minor change in human capital (when different covariates change

values from zero to one). For the variable of most interest to this study, contact with the Volunteers, the odds of a major change in human capital increased by a factor of 1.80 when a respondent had contact with a Volunteer, all other things held constant.

The *Wald* statistic in the logistic regression analysis was used to test the hypothesis that interaction with the Volunteers leads to greater positive changes in human capital. Based on the significance of the *Wald* statistic in the case above $(p = 0.047)$, the null hypothesis, that the respondents who did not have contact with the Volunteers exhibited a greater change in human capital, can be rejected. The R statistic $(-1 < R < 1)$, albeit small (0.072), also indicates that the likelihood of a major change in human capital was greater among the users and beneficiaries of the programme than in the reference group.

Based on the results of the logistic regression analysis presented above, the UNV programme thus appears to have had a positive effect on human capital that is greater than the corresponding change in the reference group. If an interaction term is included in the analysis, as was done with the multiple regression analysis, the difference is even more evident, particularly in areas outside the capital Kathmandu. A note of caution is, however, needed since the results to some extent depend on how a change in human capital is defined. The limitations of the number of new skills or areas of knowledge as an indicator of human capital also need to be kept in mind.

If a major change in human capital is defined as the acquisition of 3–10 or 4–10 new skills or knowledge in 3–10 or 4–10 areas, the change in human capital among the users and beneficiaries is significantly greater than in the reference group. If a major change is defined as acquisition of 2–10 new skills or knowledge in 2–10 areas, the difference between the users and beneficiaries and the reference group is not statistically significant $(p = 0.292)$. The odds of a major change in human capital accumulation are still 1.39 times greater if a respondent interacted with a Volunteer. Once the analysis is performed with no acquisition of new skills or knowledge as one

value, and acquisition of 1–10 new skills or knowledge in 1–10 areas as the other value, the difference between the users and beneficiaries and the reference group is not significant ($p = 0.906$). In this case, the odds of acquiring skills and knowledge are actually somewhat smaller (by a factor of 0.95) if a respondent had contact with a Volunteer.

Finally, in the analysis presented above, for one other covariate, the location of the respondents, the *Wald* statistic was also significant ($p = 0.000$). In this case the odds of a major change in human capital decrease by a factor of 0.19 when a respondent from an area outside the capital is substituted by a respondent from the capital Kathmandu. Expressed in another way, the odds of a major change in human capital increase by a factor of 5.28 when a respondent from the capital Kathmandu is replaced by a respondent from an area outside the capital.

Changes in social capital

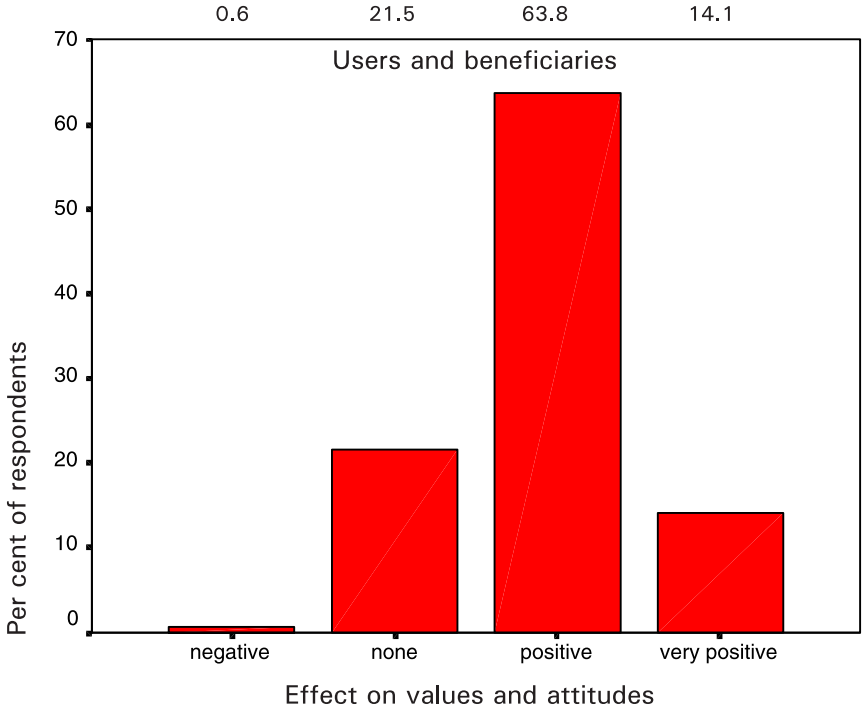
The second objective of the study focused on changes in social capital in communities or organizations where UN Volunteers worked. The components of social capital that were measured included people's values and attitudes, motivation, cooperation, and participation in local affairs.

Changes in values and attitudes

The way the users and beneficiaries of the programme perceived that the Volunteers had affected the values and attitudes of people in the communities or organizations where they worked is shown in Figure A.3.

One respondent (0.6 per cent) perceived that the Volunteer had negatively influenced the values and attitudes of people with whom the Volunteer had worked. 21.5 per cent of the respondents thought the Volunteers did not change the values or attitudes in any way.

Figure A.3 Perceived effect of the Volunteers on the values and attitudes of people

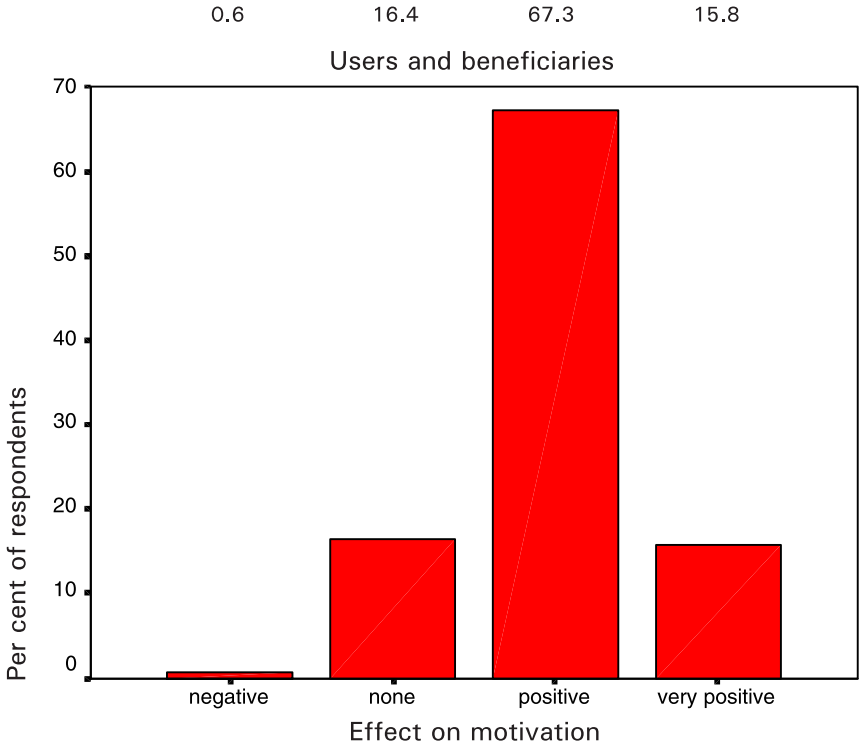


63.8 per cent of the respondents indicated that the Volunteers had positively influenced the values and attitudes. Another 14.1 per cent felt that the Volunteers had a very positive influence on the values and the attitudes of people with whom they had worked. Of the total 169 respondents, 3.6 per cent gave "do not know" or no answer to the question.

Motivation and cooperation

The perceived effect of the Volunteers on the motivation and cooperation among people in the communities or organizations where they worked can be seen in Figures A.4 and A.5.

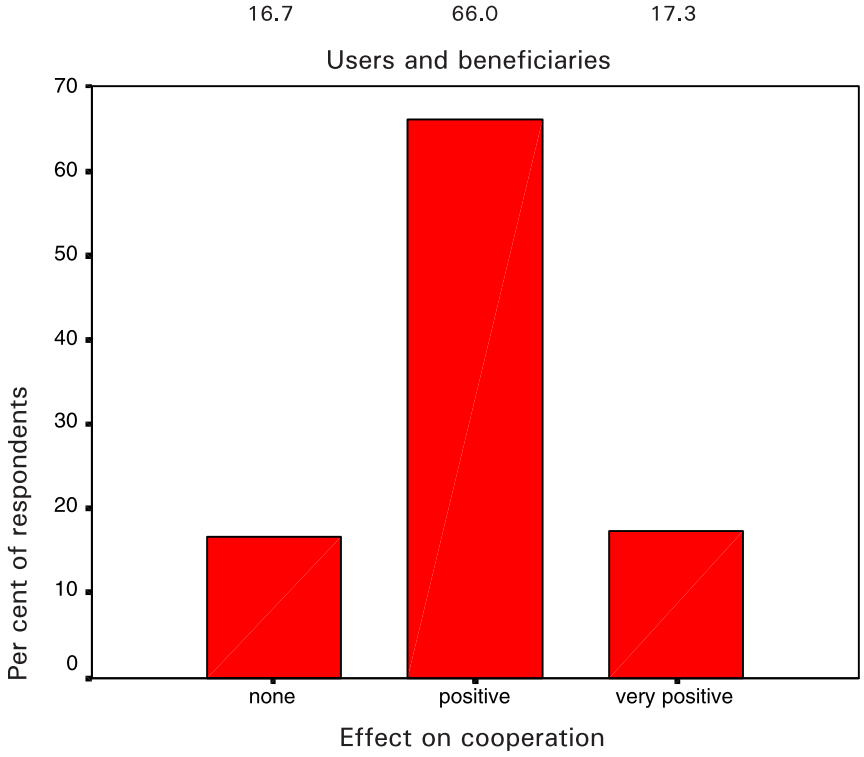
Figure A.4 Perceived effect of the Volunteers on the motivation of people



One respondent (0.6 per cent) thought the Volunteer had changed the motivation of people in a negative way. 16.4 per cent did not think the Volunteers had changed the motivation of people at all. 67.3 per cent considered that the Volunteers had changed the motivation of people in the community or organization where they worked in a positive way. Another 15.8 per cent indicated that the Volunteers had influenced the motivation of people in a very positive way. 2.4 per cent indicated "do not know" as an answer.

16.7 per cent of the respondents thought that the Volunteers did not have any effect on the cooperation among people. 66.0 per cent of the respondents considered that the Volunteers had changed the

Figure A.5 Perceived effect of the Volunteers on the cooperation of people

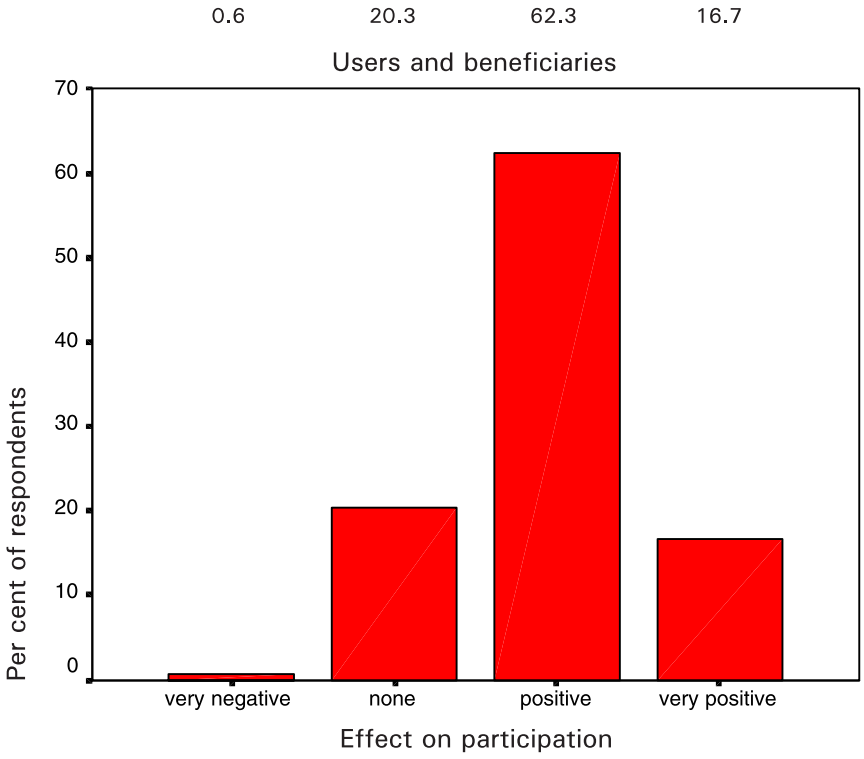


cooperation among people in the community or organization where they worked in a positive way. 17.3 per cent indicated a very positive effect of the work of the Volunteers on cooperation. 7 of the 169 respondents, or 4.1 per cent, said they did not know if the Volunteers had changed the cooperation among people.

Participation

The perceived influence of the Volunteers on people's participation in local affairs is shown in Figure A.6.

Figure A.6 Perceived effect of the Volunteers on people's participation



One respondent (0.6 per cent) thought there was a very negative change in the participation of people in the activities of the local community as a result of the work of the Volunteer concerned. 20.3 per cent did not think that the work of the Volunteers led to any change in local participation. 62.3 per cent of the respondents considered that a positive change in the participation of people in the activities of the local community was an outcome of the work of the Volunteers. 16.7 per cent of the respondents indicated a very positive influence on people's participation as an outcome of the work of the Volunteers. 3.6 per cent of the respondents gave "do not know" as an answer.

Significance of results

One in every five or six of the respondents (between 16.7 and 21.7 per cent) thought the Volunteers had no effect or a negative effect on the different components of social capital. At the most, one respondent (0.6 per cent) considered the effect negative or very negative. More than four out of five of the respondents thought that the Volunteers had a positive or very positive influence on the motivation and cooperation of people in the community or organization where they worked (83.0 and 83.3 per cent, respectively). Almost four out of five of the respondents also attributed a positive or very positive change in people's values and attitudes, and in people's participation in the activities of the local community, to the work of the Volunteers (78.3 and 79.0 per cent, respectively).

Based on the results presented above, the Volunteers seem to have had a considerable positive impact on social capital. However, to ascertain this, two things needed to be done. Firstly, the responses of the users and beneficiaries of the programme were compared to those of the reference group, and secondly, the different components of social capital were combined together to get an overall assessment of the impact of the programme on social capital.

To assess the differences between the responses of the users and beneficiaries of the programme and those of the reference group, multiple regression analyses with respect to each of the four components of social capital were performed. For three of the components, changes in people's motivation, cooperation, and participation in local affairs, there was a statistically significant difference in favour of the respondents who had interacted with the Volunteers ($0.004 < p < 0.023$). For the fourth component, changes in values and attitudes, the difference between the responses of those who had contact and those who had no contact with the Volunteers was not statistically significant ($p = 0.123$).

Given that the perceptions of the respondents with respect to changes in the components of social capital were very well represented by two categories, logistic regression analysis was also considered appropriate to compare the responses of the users and

beneficiaries of the programme and the reference group. Some information was, however, inevitably lost when the responses were collapsed into two values. The two values used in the logistic regression analyses of changes in the components of social capital were "none or negative" and "positive". Five dichotomous covariates were included in the analyses: the age, gender, and education of the respondents, the geographical location, and contact with the Volunteers.

The logistic regression analyses showed that the *odds* of a positive change in people's values and attitudes increased by a factor of 1.17 when a respondent had contact with a Volunteer, all other things held constant. The difference between the users and beneficiaries and the reference group, however, was not significant ($p = 0.610$, $R = 0.000$). In the case of people's motivation, the *odds* of a positive change in motivation increased by a factor of 1.65 when a respondent had contact with a Volunteer, all other things being equal. The difference between the users and beneficiaries and the reference group was not significant ($p = 0.121$), but the R statistic (0.038) indicated a greater likelihood of a positive change in the motivation among the users and beneficiaries of the programme than in the reference group.

In terms of cooperation among people, the *odds* of a positive change in cooperation increased by a factor of 1.30 when a respondent had contact with a Volunteer, all other things held constant. The difference between the users and beneficiaries and the reference group was, however, not significant ($p = 0.439$, $R = 0.000$). For people's participation, the *odds* of a positive change in people's participation increased by a factor of 2.11 when a respondent had contact with a Volunteer, all other things being equal. The difference between the users and beneficiaries and the reference group was, however, not significant ($p = 0.168, R = 0.000$).

In summary, the results of the logistic regression analyses of the individual components of social capital were consistent with the multiple regression analyses presented above, but do not provide any additional information regarding the impact of the UNV programme on the individual components of social capital.

To get an overall assessment of the impact of the programme on social capital, an index of change in social capital was calculated for each respondent. The index was calculated as an unweighted average of the four different components of social capital: change in people's values and attitudes, motivation, cooperation, and participation in local affairs. For the users and beneficiaries, the social capital index mean was 1.90, and for the reference group the mean was 1.60. The difference in the means of the two groups was statistically significant ($p = 0.017$).

A multiple regression analysis was performed to test if interaction with the Volunteers could explain the difference between the two groups of respondents in the change in social capital. Contact with Volunteers and four other explanatory variables were included in the analysis: the age, gender, and education of the respondents as well as their geographical location. The linear combination of these variables was significantly related the social capital index, $F(5,286) = 11.46$, $p = 0.000$. The multiple correlation coefficient was 0.41, indicating that approximately 15 per cent of the variance in the social capital index could be accounted for by the combination of the five explanatory variables.

In terms of the social capital index, a statistically significant difference could be found between the respondents who had interacted with the Volunteers and those who had not had any contact with the Volunteers ($p = 0.002$). This further supports the findings indicating that the Volunteers had a positive impact on social capital. Other statistically significant results could be found with respect to the education of the respondents ($p = 0.000$), and the geographical location ($p = 0.000$). These results indicate that the most significant positive changes in social capital could be found among the respondents who had less formal education and those who worked outside the capital Kathmandu.

A simple factorial ANOVA procedure was used to assess the effect of the interaction between the respondents' age, education, gender, geographical location, and contact with the Volunteers on social

capital. Only one of the ten interaction effects was statistically significant: the interaction between the gender and the geographical location of the respondents ($p = 0.018$). The interaction effect between the geographical location and contact with the Volunteers was almost statistically significant ($p = 0.068$); given this, additional analyses of the urban–rural dimension were performed. These included analysing the differences in the assessments of the users and beneficiaries and the reference group respondents in Kathmandu and other areas of Nepal.

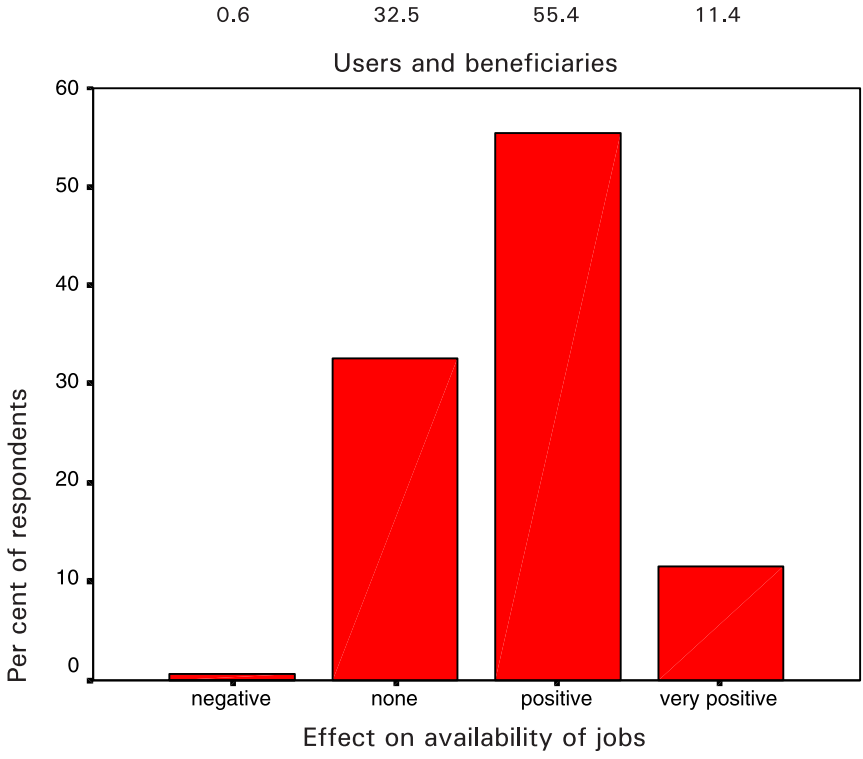
In Kathmandu, the average change in social capital among the users and beneficiaries of the programme was greater than the corresponding change in the reference group, but the difference was not statistically significant ($p = 0.366$). In other areas of Nepal, however, the users and beneficiaries indicated a significantly greater increase in social capital than the reference group ($p = 0.033$). In areas outside Kathmandu, both the users and beneficiaries and the reference group respondents indicated a significantly greater increase in social capital than the corresponding groups in Kathmandu ($p = 0.000$ and $p = 0.002$, respectively).

In summary, the results relating to change in social capital are similar to those pertaining to human capital development, and indicate that the UNV programme, in terms of social capital development, also appears to have been most successful in areas outside the capital Kathmandu.

Changes in jobs, poverty, the environment, and women's lives

To measure other outcomes of the work of the Volunteers, in addition to human and social capital formation, the effect of the Volunteers was assessed on the priority areas of the UNDP: job creation, poverty reduction, environmental protection, and advancement of women.

Figure A.7 Perceived effect of the Volunteers on the availability of jobs

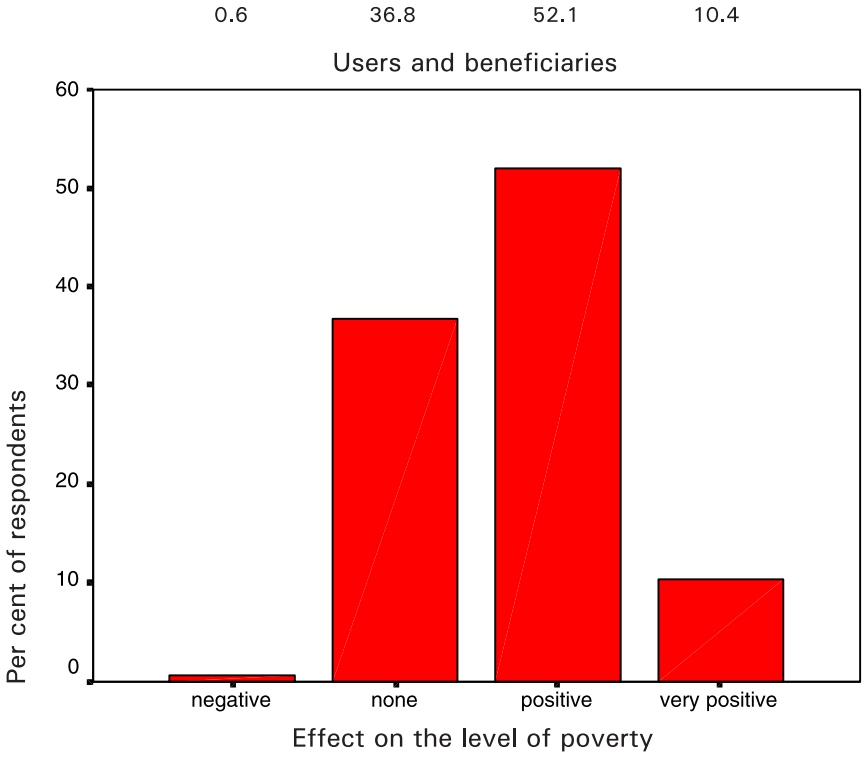


Effects on jobs

The views of the users and beneficiaries on the effect of the Volunteers on the availability of jobs are shown in Figure A.7.

One respondent (0.6 per cent) thought that the Volunteer had a negative effect on the availability of jobs. 32.5 per cent of the respondents did not think that the Volunteers had any effect on jobs. 55.4 per cent of the respondents thought the Volunteers had a positive effect, and 11.4 per cent said the Volunteers had a very positive

Figure A.8 Perceived effect of the Volunteers on the level of poverty



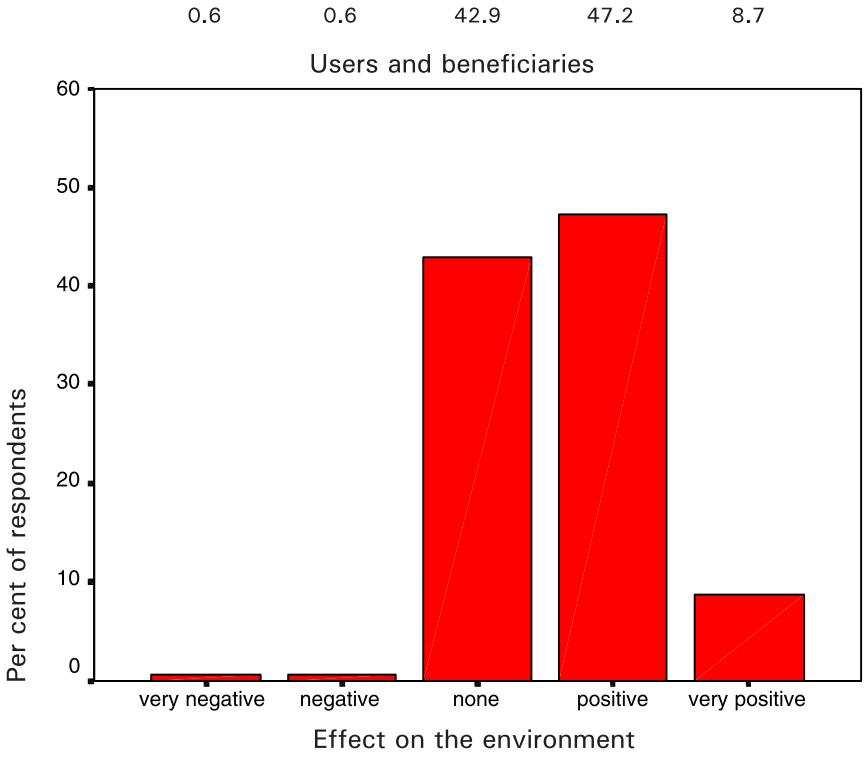
effect on jobs. Of the 169 respondents, 3 (1.8 per cent) gave "do not know" as an answer.

Effects on poverty

The assessment of the users and beneficiaries of the effect of the Volunteers on poverty is shown in Figure A.8.

One respondent (0.6 per cent) said the Volunteer had a negative effect on the level of poverty. 36.8 per cent of the respondents said

Figure A.9 Perceived effect of the Volunteers on the environment



that the Volunteers did not have any effect on the level of poverty, 52.1 per cent of the respondents thought the Volunteers had a positive effect on the level of poverty. 10.4 per cent thought the effect of the Volunteers on the level of poverty was very positive. 3.6 per cent gave "do not know" as an answer.

Effects on the environment

The perceptions of the users and beneficiaries of the effect of the work of the Volunteers on the environment are shown in Figure A.9.

One respondent (0.6 per cent) thought the Volunteers had a very negative effect on the environment and another respondent thought the Volunteers had a negative effect on the environment. 42.9 per cent of the respondents did not think the work of the Volunteers had any effect on the environment. 47.2 per cent of the respondents considered that the Volunteers had a positive effect on the environment and 8.7 per cent thought the effect was very positive. 4.7 per cent of the respondents gave "do not know" as the answer.

Effects on women's lives

The impression of the users and beneficiaries of the effect of the Volunteers on women's lives is given in Figure A.10.

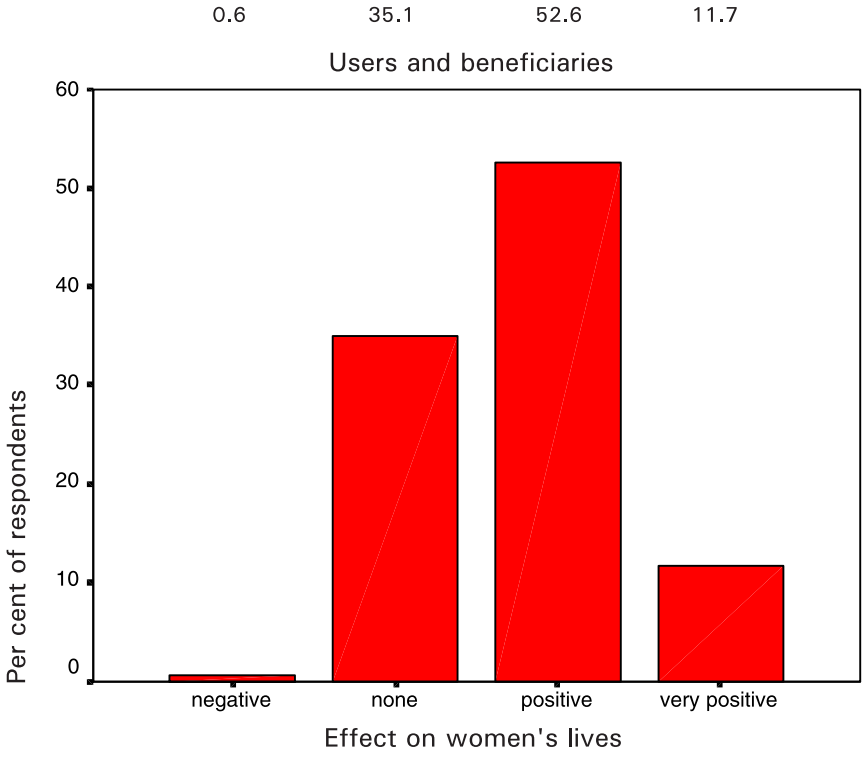
One respondent (0.6 per cent) thought the Volunteer had a negative effect on women's lives. 35.1 per cent of the respondents did not think the Volunteers had any effect on women's lives. 52.6 per cent considered that the Volunteers had a positive effect on women lives and 11.7 per cent thought the volunteers had a very positive effect on women's lives. 15 respondents (8.9 per cent) said they did not know if the Volunteers had any effect on women's lives.

Significance of results

Between one-third and a half of the respondents (33.1 to 44.1 per cent) thought the Volunteers had no effect or a negative effect on the UNDP s priority areas: jobs, poverty, environment, and women. Of these, one, or at the most two, respondents (0.6 or 1.2 per cent) thought the effect was negative or very negative. Approximately two-thirds of the respondents thought the Volunteers had a positive or very positive effect on jobs (66.9 per cent), the level of poverty (62.6 per cent), and women's lives (64.3 per cent). More than one in two (55.9 per cent) thought the Volunteers had a positive or very positive effect on the environment.

To determine the significance of the results described above, the responses of the users and beneficiaries were compared to those of the

Figure A.10 Perceived effect of the Volunteers on women's lives



reference group through multiple linear regression analyses with changes in jobs, poverty, the environment, or women's lives as the outcome variables. Five explanatory variables were included in the analyses: the age, gender, and education of the respondents, the geographical location, and the contact with the Volunteers.

In all of the multiple regression analyses, the difference between the respondents who had contact with the Volunteers and those who did not was statistically significant ($p = 0.000$). For three of the areas measured, changes in the availability of jobs, the level of poverty, and the environment, there was a statistically significant dif-

ference in favour of the respondents who had interacted with the Volunteers. For the fourth area of interest, changes in women's lives, the respondents who had no contact with the Volunteers indicated a bigger positive change in women's lives than those who had interacted with the Volunteers.

The multiple regression analyses also showed that the biggest positive changes tended to be indicated by younger respondents, respondents with less education, and respondents in areas outside Kathmandu. The only question in which there was a significant difference in the perception of male and female respondents was the one that assessed changes in women's lives. In this particular case, male respondents thought bigger positive changes had taken place in women's lives than did female respondents.

A multiple regression analysis based on an overall index of changes in the UNDP's four priority areas also indicated more positive changes among the users and beneficiaries of the programme than in the reference group. The index was calculated for each respondent as an unweighted average of the four separate areas of focus: jobs, poverty, the environment, and women's lives. Considering, however, that combining the different areas of focus into a single index may indicate little else except that the UN Volunteers contributed to change, additional analyses were considered necessary. Taking into account the fact that the actual responses were very well represented by two categories, logistic regression analysis was considered an appropriate procedure to further analyse the differences in the responses of the users and beneficiaries of the programme and the reference group.

The two values or categories used in the logistic regression analyses of changes in the UNDP's four priority areas were "none or negative" and "positive". Five dichotomous covariates were included in the analyses: the age, gender, and education of the respondents, the geographical location, and contact with the Volunteers.

The logistic regression analyses showed that the *odds* of a positive change in the availability of jobs increased by a factor of 1.58 when a respondent had contact with a Volunteer, all other things held con-

stant. The *Wald* statistic is almost significant ($p = 0.093$), which implies that respondents who had contact with the Volunteers indicated more positive changes in the availability of jobs than those who did not have contact with the Volunteers. The R statistic (0.046) also indicates a greater likelihood of a positive change in job availability among the users and beneficiaries of the programme than in the reference group.

As far as a change in the level of poverty is concerned, the *odds* of a positive change increased by a factor of 2.25 when a respondent had contact with a Volunteer, all other things being equal. Respondents who had contact with Volunteers indicated significantly more positive changes in the level of poverty than those who did not have contact with the Volunteers ($p = 0.004, R = 0.127$).

In the case of a change in the environment, the *odds* of a positive change increased by a factor of 2.28 when a respondent had contact with a Volunteer, all other things held constant. Respondents who had contact with Volunteers indicated significantly more positive changes in the environment than those who did not have contact with the Volunteers ($p = 0.002, R = 0.134$).

In the case women's lives, the *odds* of a positive change decreased by a factor of 0.16 when a respondent had contact with a Volunteer, all other things being equal. In this case respondents who had no contact with the Volunteers indicated more positive changes in women's lives than those who had contact with the Volunteers ($p = 0.000$, and the B coefficient is negative). The R statistic (-0.275), indicates a smaller likelihood of a positive change in women's lives among the users and beneficiaries of the programme than in the reference group.

In summary, the results of the logistic regression analyses of the changes in the UNDP's priority areas were entirely consistent with the multiple regression analyses discussed above, and provide additional support for an overall conclusion of a positive impact of the UNV programme on jobs, poverty, and the environment.

To take the analysis one final step further, the interaction effects

between the different explanatory variables for each of the UNDP's four priority areas were reviewed. In the case of changes in the availability of jobs, and changes in the level of poverty, none of the interaction effects was significant. With regard to changes in the environment, there was a significant two-way interaction effect between the age, gender, education of the respondents, and their contact with the Volunteers. As far as changes in women's lives are concerned, the interaction effect between the education of the respondents and their contact with the Volunteers was significant.

A closer look at different groups and sub-groups of respondents showed significant differences between users and beneficiaries and the reference group in Kathmandu as well as in areas outside the capital. The differences in the changes in job availability, poverty, and the environment indicated by the users and beneficiaries in areas outside Kathmandu and those indicated by the users and beneficiaries in Kathmandu were also statistically significant. This finding is in line with previous findings, which showed that the programme appears to have had its greatest impact in areas outside the capital.

In terms of changes in women's lives, respondents in the reference group in Kathmandu as well as in other parts of Nepal indicated significantly greater positive changes than the users and beneficiaries. The users and beneficiaries of the programme in areas outside Kathmandu, in turn, indicated significantly bigger positive changes in women's lives than the users and beneficiaries in Kathmandu. Thus, even if the programme in a relative sense seems to have had a smaller impact on women's lives, the finding is consistent with the findings related to changes in the availability of jobs, the level of poverty, the environment, and human and social capital. These indicate that the programme appears to have had its biggest positive impact in areas outside the capital Kathmandu.