

TAWAL SOCIAL HEALTH SURVEY Nov- Dec 2012

Designed and administered by Ms Bimila Prajapati

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Left to right: Beg Tamang (senior health worker), Bimila Prajapati (volunteer) and Lilla-Maya Tamang (health worker) at Tawal health clinic.

**Prepared for NAFA, Hilly Region Development Club (HRDC), and
Tawal community**

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Special thanks to all those who participated

EXECUTIVE SUMMARY

1. Ms Bimila Prajapati, a health assistant volunteering with NAFA, designed and carried out a brief social health survey of Tawal villagers in November 2012. The aims of the survey were to explore: villagers' cooking methods, health and social effects of wood fuel use; impact of availability of electricity on villagers; water and toilet access and health information sources.
2. The survey was administered to 40 households, comprising 103 men and 109 women. The senior health worker, Beg Tamang provided translation services.
3. Agricultural work is the main occupation of respondents.
4. All respondents reported using a traditional stove (metal ring supported by 3 metal legs).
5. Thirty-seven villagers reported that they collect wood from Pasang Chowk, the nearest community forest, located some distance from Tawal. Wood collection takes an individual between 12 – 14 hours per trip. Some families have to collect wood 2 to 3 times a week; others go weekly, depending on the size of the family and the number of family members who can undertake the task.
6. Smoke from traditional stove causes 1) household problems 2) eye problems 3) respiratory problems 4) other health problems and 5) educational problems.
7. Respiratory and eye problems were reported to be the most prominent health issues in households in the last year.
8. The villagers reported dramatic and positive changes as a result of having electricity, namely: 1) they can work at night making dokos (woven baskets) and weaving cloth; 2) children can do their homework and study at night 3) they can see what they are cooking 4) there are fewer accidents from people falling into the open stove.
9. All villagers use the water source provided by tap stands and the water is considered to be clean and drinkable.
10. There are toilets in 36 of the 40 households surveyed.
11. The majority of respondents state that they obtain health information from the health clinic; radio is a secondary source of health information.
12. Use of traditional stoves and associated wood collection involves significant health, household, time and workload burdens as well as severe deforestation. The proposed HRDC improved cooking stove project is estimated to reduce smoke production by 80% and use of wood by approximately 30%.
13. The impact of the availability of electricity is overwhelmingly positive. Other positive impacts reported by the HRDC include: completion of bamboo products training program (mainly involved women); establishment of rural carpentry and poultry farming businesses.
14. The availability of clean water and the growing number of toilets being installed is encouraging.
15. The role of the health clinic as the primary source of health information for villagers suggests that the health workers have a solid foundation for developing public health awareness raising campaigns in Tawal and nearby villages.

1. Introduction

A small scale social and health survey of Tawal villagers was carried out by Ms Bimila Prajapati in November-December 2012. Ms Prajapati was sponsored by NAFA at VSN School Thimi, and then through FEAT (Further Education and Training) program. She completed her final exams in a health assistant course and volunteered to accompany NAFA members to Tawal to gain some direct experience of community life in a remote area village.

In order to gain further professional experience in assessing community social health, Ms Prajapati designed and carried out a survey of 40 households in Tawal focusing on: traditional stove use and wood collecting practices, associated problems from traditional stove use and the impact on villagers of the availability of electricity from the micro-hydro electricity plant now established at Tawal.

This survey complements findings from a previous social survey undertaken at Tawal in January 2011 (*Report on Tawal village: Income sources, social change and future priorities*). The results of the most recent survey will be used to further evaluate the impact of a proposed HRDC project to introduce improved cooking stoves to all households in all villages within Ri VDC (in which Tawal is located).

2. Aims of survey

The main aims of the survey were to obtain information from villagers on:

- Use of traditional cooking stove and wood collection practices.
- Problems associated with use of traditional cooking stoves.
- The impact of electricity availability on everyday life.
- Access to clean water and toilets.
- Sources of health information.

3. Method

A brief survey (15 questions – see Appendix 1) was administered to 40 households (N=40), which represent approximately 20% of all households in Tawal. The 40 households comprised 103 men and 109 women. The senior health worker at the Tawal Health Clinic, Beg Tamang, assisted with translation.

4. Findings

A. Occupation of respondents

Agricultural work is the main occupation of respondents.

B. Current cooking methods

All respondents reported using a traditional stove for cooking. The stove is a simple apparatus consisting of a metal ring supported by 3 metal legs. Cooking on the stove requires copious amounts of wood. There is no chimney to direct smoke outside, so smoke fills the house at cooking time. The stove is made by local kamis (blacksmiths) who also make other metal items. The traditional stove is estimated to cost approximately 600 rupees (\$6-7 AUD).



Figure 1: Traditional cooking stove

C. Wood collection

Thirty-seven villagers reported that they collect wood from Pasang Chowk, the nearest community forest to Tawal village.

The journey to Pasang Chowk takes between 12 – 14 hours on average, depending on the season, and age of the person undertaking the task. One older person reported needing to take 2 days to go to and return from Pasang Chowk because of his age; a younger man reported taking 8 – 10 hours. Another person reported going early in the morning and coming back late at night, around mid-night. This person said that sometimes a family member has to go and search for the person collecting wood at night, in case they have become lost.

Most individuals go to Pasang Chowk 2 to 3 times a week, but this can be reduced if they have more than one family member going, as wood can then be stockpiled. In three households, individuals reported that they collect wood from both their farm and Pasang Chowk and therefore go infrequently to Pasang Chowk.

During the monsoon season, wood collection is said to be very difficult, due to the slippery track and accidents which occur frequently. The time taken to collect wood is much longer during the monsoon time.



D. Problems associated with traditional cooking stove

All villagers reported that the traditional cooking stove produces excessive smoke. Thirty-five individuals answered questions about the impact of smoke on daily life and health. The problems reported can be categorised as household, health and educational problems.

Household problems

- The smoke blackens the walls of the house, spoiling the inside colour.
- The smoke causes dust to settle on walls, floors and clothes.

Comments from respondents provide insights into the specific nature of the problems encountered:

“House is full of smoke, dust. Can’t stay there. Bed, kitchen are in one room, so very difficult”.

“The walls of the house are black due to smoke and clothes are dusty”.

“Difficult to breathe. Smoke spoils everything; dust everywhere.”

“Due to smoke, smoke all over the house and even cleaned clothes are full of dust which bring itching. Spoils the colour of the house”.

Health problems

Health problems (multiple responses) reported in order of frequency are shown in Table 1 below.

Table 1 Impact of smoke: health problems

Problem	Frequency	Examples
Respiratory problems	15	cough, difficulty breathing, chest pain, cold
Eye problems	12	itchy eyes, redness, watering, dimmed sight
Other health problems	4	itching skin; headache, change in skin colour, inability to sleep
No health problems	4	

Educational problems

Children have difficulty doing homework.

E. Other health problems in household in last year

Respondents were asked what, if any health problems were experienced in the household in the last 12 months. Of the 31 people who answered this question, six reported no problems. The problems (multiple responses) reported by 25 people in order of frequency are as follows:

Table 2: Health problems in household in past year

Health problem	Frequency
Respiratory	7
Eye/sight	7
Gastric	4
Dental	3
Hearing/ear	3
Tuberculosis	2
Diarrhoea	2
High blood pressure	2
Tumour	2
Joint pain	2
Gynaecological	2
Jaundice	1

F. Impact of electricity availability

All but two households (out of 40) interviewed reported having electricity connected. Of the two people who did not have electricity connected, one is an older person who said she does not want the connection (somewhat fearful of electricity) and the other said the wire was fixed but the connection had not yet been made due to lack of money as they had borrowed heavily to build their house.

The villagers reported dramatic changes as a result of having electricity. Most responses focused on the following key changes:

- They can work at night making dokos (woven baskets) and weaving cloth; whereas without electricity, they used to go to bed after dinner.
- Children can do their homework and study at night.
- They can see what they are cooking.
- There are fewer accidents from people falling into the open stove.

One person mentioned being able to charge mobile phones and watch TV.

Comments that were recorded appear below:

“Before children would not do homework and they get scolded by teachers. Now it is very easy days. No need to buy kerosene and before difficult to get kerosene. Electricity has made our life light-full”.

“Very happy to have light in home and this has made life easier. Helps in cooking, making baskets, doing homework. Can do work at night also”.

“Lucky to have electricity here and very happy for that and thankful to NAFA. All the tasks are going easy. Easy for children to do their school task”.

“It’s like living in heaven. Work (has) become easy and faster”.

“Due to electricity, we are having happy life and if it lacks, you fall here and there. Very happy. All the works are finished in time”.

“Made my daily life easier”.

“Before when there is no electricity, it is difficult to write homework for children. Now it made it easier. Can charge mobile and get news through television about politics”.

“Can see light. Helps in cooking food – has become very easy for old ones at night”.

G. Access to clean water

All villagers use the water source provided by tap stands, the water is considered to be clean and drinkable.

H. Toilet access

People in 36 of the 40 households reported having a toilet.

I. How health information is obtained

The majority of respondents state that they obtain health information from the health clinic (92.5%; n=37). Radio is a secondary source of health information, mentioned 7 times.

J. Discussion

The information obtained provides useful insights from the perspective of villagers themselves in using traditional cooking stoves. Their responses match those reported by the considerable body of research into traditional cooking practices in Nepal. There are obvious health and lifestyle difficulties, particularly respiratory and eye problems, as well as time and workload burdens associated with the long distance travelled to obtain wood. The impact of use of wood fuel on the environment has been raised as a pressing community concern by HRDC and Tawal villagers over several years.

The proposed HRDC improved cooking stove project (see photos Appendix 2) is estimated to reduce smoke production by 80% and use of wood by approximately 30%. A future survey of householders’ perceptions of the impact of improved cooking stoves on their health and households will be useful in evaluating the outcomes of the stove project.

Due to the small response rate regarding other health problems, the findings are unreliable. A more systematic survey of health problems from the perspective of villagers and from an analysis of health clinic records would provide a more accurate picture of health status at Tawal. It would be useful to investigate if respiratory and eye/sight problems remain prominent in a larger sample.

The overwhelmingly positive view of the impact of the availability of electricity is consistent with formal reports from the HRDC and from the REDP engineer. Other positive impacts of electricity availability reported by the HRDC include: completion of bamboo products training program (mainly involved women); establishment of rural carpentry and poultry farming businesses. The fact that one person reported not having connected to the electricity grid due to cost concerns needs further investigation.

The availability of clean water and the growing number of toilets being installed is encouraging. The role of the health clinic as the primary source of health information for villagers suggests that the health workers have a solid foundation for developing public health awareness raising campaigns in Tawal and nearby villages.

APPENDIX 1: Survey questions

1. How many people in the house?
2. What caste?
3. How do you cook?
4. Where do you go for wood?
5. How far and how many times do you go for wood?
6. Is there smoke in the room when cooking?
7. Do you have a chimney?
8. What is the impact of smoke
9. What other medical problems were experienced in the house in the last 12 months
10. Do you have a toilet in the house?
11. What is your water source?
12. Is the water clean to drink?
13. Do you have electricity connected?
14. What changes has it made to this family?
15. How do you get health information?

APPENDIX 2: Improved cooking stove (2 pot)

Diagrams and photos used at public meeting to discuss cooking stove project

