

PEOPLE-CENTRED APPROACHES TO WATER AND ENVIRONMENTAL SANITATION

The NEWAH participatory assessment – evaluating sustainability, gender & poverty issues

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Nepal Water for Health (NEWAH) developed and piloted a Gender and Poverty (GAP) approach to address gender and caste inequity and poverty issues in its rural water supply and sanitation projects in Nepal. In order to assess whether women and the poorest benefited from the GAP approach a methodology tool which is participatory and gender and poverty sensitive was required. NEWAH chose the Methodology for Participatory Assessment (MPA) because of its participatory approach and its ability to analyse large amounts of data statistically. However, NEWAH found that the tool was too time consuming and did not meet all of NEWAH's needs. The MPA was revised and modified for the Nepal context and renamed the NEWAH Participatory Assessment (NPA). This paper describes how this participatory methodology can be used to assess the sustainability of projects linked to gender and poverty sensitive issues. It also presents some of the findings from NEWAH's experience of using the NPA.

Background

Nepal Water for Health (NEWAH) developed a Gender and Poverty (GAP) approach to address the endemic gender and social inequality that prevails in Nepal's rural water supply and sanitation sector, and the resultant impact on the sustainability of projects. From 2000-2002, NEWAH successfully piloted the GAP approach in 5 (3 gravity flow and 2 tube well) projects throughout Nepal. In order to evaluate the pilot projects NEWAH used a variant of a participatory evaluation tool called the Methodology for Participatory Assessment (MPA), which was modified for the Nepal context and renamed the NEWAH Participatory Assessment (NPA). NEWAH chose the MPA methodology because of its participatory approach and its ability to analyse large amounts of data statistically and present it graphically, thus allowing programme managers to evaluate processes and results, monitor and improve existing services. Training and field testing of the MPA in two rural communities in Nepal revealed that while the MPA was a useful methodology for assessing sustainability linked to demand, gender and poverty NEWAH found the process too time consuming for staff and for communities. The amount of time required of the community to participate in the MPA unfairly penalised the poor since they had to give up daily labour wages or working in their own fields in order to participate in the assessment exercises. It was also difficult to facilitate participation by community members for such a long duration due to the same reason.

Why the NPA?

Instead of searching for and testing another methodology, NEWAH decided to revise and condense the MPA to include

tools that would allow NEWAH to assess specific GAP interventions, processes and impacts along with health and sanitation issues. This revised methodology tool, the NPA, is more cost effective for NEWAH and the communities it works in. Following field-testing and development of a Field Manual and a computer database to store and analyse data, NEWAH received the opportunity to use the methodology in a consultancy assignment for a large community based water supply and sanitation project in Nepal. In 2003, NEWAH carried out a comparative post-project evaluation of 15 projects (5 GAP pilot projects and 10 regular projects) using the NPA tool to assess whether the GAP approach was instrumental in benefiting women, the poor and marginalized groups.

Difference between the MPA and NPA

The revision of the MPA resulted in a new methodology, specially suited to the rural water supply and sanitation sector in Nepal. Some of the main differences with the MPA are the following:

Adapted to the Nepal context

Apart from a bilingual Field Manual (English and Nepali), the ordinal system and the household questionnaire have been modified and field tested to capture the important contextual differences between gravity flow (in the hills) and tube well systems (in the Terai).

Addresses gender, caste, ethnicity and poverty issues relating to water and sanitation

In addition to gender and poverty issues, the NPA has further refined its focus to also pick up important and related dif-

ference between caste and ethnic groups in Nepal in issues concerning water and sanitation.

Greater attention to health, hygiene and sanitation issues

The NPA developed tools to elicit information on current health, hygiene and sanitation issues and practice by gender, caste, ethnicity and socio-economic groupings.

Database to analyse the information

The NPA has developed a custom package database system using MS ACCESS.

Basic features of the NPA

The NPA is a participatory methodology to access community level issues relevant to rural water supply and sanitation (RWSS) project in Nepal, which can be adapted to suit the requirements of particular RWSS projects. Its basic features are the following:

Flexibility

It can be modified to suit particular situations, including socio-economic and institutional issues of gender, poverty, caste, ethnicity and participation. It can be used for planning, monitoring and assessment of RWSS projects, and can also be used to assess baseline situations even in communities that do not have a RWSS project.

Standard Participatory Rural Appraisal tools

The NPA uses standard PRA tools such as transect walks, focus group discussions, pocket voting, well being ranking, social mapping, etc., and also has a household questionnaire, which can be used to access time saving, water collection details, household income and expenditure, etc.

Descriptive ordinal scoring

A distinctive feature is the use of a descriptive ordinal system, which is a reliable method to translate qualitative community responses into numbers, which can be used for statistical analysis.

Qualitative and quantitative information

In addition to ordinal scores, the NPA also captures qualitative information, both to explain these scores, and to probe issues in further detail.

Information sharing with the community

The information collected is shared with the community and filed in community folders for further use by teams.

Database of information

The NPA also stores information in an MS Access database from where it can be used for analysis, reporting and presentation.

Combination with Management Information System and Geographical Information System

It can also be merged with standard MIS and GIS package to present socio-economic and instructional information together with technical and financial information.

Thus the NPA is a flexible methodology which collects community level information, except that it is tailored to Nepal-specific issues in rural water supply and sanitation projects.

Components of the NPA

The NPA has the following components, which address a variety of issues:

- *Community meetings*: to assess general information about the village, including
 - Access to social and economic infrastructure, information on past projects
 - Major caste groups, religions and languages spoken
 - Number of households (by socio-economic group, caste and ethnicity) not served by, and requiring access to, water supply and sanitation systems, along with reasons for current lack of access.
- *Well-being ranking and social mapping*: to identify households by socio-economic, caste and ethnic groups, and to represent this information on village social maps.
- *Water system mapping*: to mark all existing water points and sources (traditional and improved), and components of water systems (if any).
- *Water point surveys*: to assess status of existing water points, including number of users (by caste and socio-economic group), adequacy, reliability, timeliness of repair, water quality, leakage, environmental sanitation (around the water point), effectiveness of maintenance training, default rates in user monthly charges (and reasons for non-payment), and social barriers to access; along with specific reasons, in each case.
- *Focus group discussions by gender and class (and also with school children and out-of-school children)*: to assess differences in current health, hygiene and sanitation issues and practices, performance of past project (e.g. participation in decision making, voice and choice in technology design, location, contribution to initial construction costs, financing for O&M etc.), gender division of labour within households, and participation by poorest men and women in community decision-making.
- *Case studies*: to highlight positive and negative experiences of project implementation, past projects and other community initiatives which greatly enhance the

qualitative aspect of the assessment.

- Although the NPA asks a fixed set of questions in its household survey, it also generates community-wide responses through focus group discussions (FGDs) on a range of important socio-economic issues, using a descriptive ordinal scoring system (like the MPA) that translates qualitative experiences (elicited during FGDs using participatory tools), into numbers.

Findings from the NPA

1. Total unserved households in the surveyed communities for Non-NEWAH and GAP/Non-GAP

There are a large number of unserved households in the non-NEWAH projects compared with NEWAH projects ranging from 4 to 233 households, whereas GAP projects did not have any unserved households and non-GAP projects had 1 to 36 households. During the FGDs with the community people in the NEWAH villages, the reasons cited for unserved households in NEWAH projects were due to availability of their own local sources along with alternative water sources, but in non-NEWAH villages some households had alternative sources of water and some were excluded from the projects.

2. Deciding on the location of facilities in all GAP and Non-GAP

During the FGDs with better off, medium and poorest men and women, most of the respondents from the non-NEWAH projects replied that the location of the facilities were decided by outside agencies, some of the local leaders and better off men, although the better off men replied that all the concerned people were involved. But in case of the NEWAH projects, all the groups replied that while technical advice was suggested by NEWAH, the local communities were given the choice for the location of the water points.

3. Participation of poor and women in decision making

According to the focus group discussions with both the non-GAP and non-NEWAH villages, it clearly seems there is a lack of involvement of the poor and women in decision making from the initiation of the project activities, implementation and operation and management of the water supply and sanitation system, whereas in GAP villages it seems that people have been much more involved in the operation and maintenance of the schemes. All socio-economic groups seem to have had the opportunity for electing and selecting members of the Water and Sanitation User Committees in GAP projects, which in turn represent their interests better in sub sequential decisions. The GAP approach has influenced the women in the villages, giving them greater

confidence and ability through training and experience in responsible positions.

4. Gender division of labour (task sharing for household water collection)

The pocket voting exercise brought out that, in general for the entire group of households surveyed, women do the major share of household water collection in all communities both among poor women and better off women. An examination of the data shows that, in all communities, and across socio-economic groups, men tend to overestimate their contribution to the task, and to consequently attribute a lower share to others in the household. But since women are directly engaged in this task, their responses are taken to be standard. Figure 1 shows a comparison of the perception of poor women in different communities concerning the division of labour for collecting water. The GAP projects show that there is a more equitable division of labour between women and men compared to the other communities.

5. Existing sanitation systems in different communities

Figure 2 shows that in the non-NEWAH communities only 7% of the total surveyed households have latrines, whereas in the NEWAH communities more than 50% of households surveyed have latrines. Almost all the latrines in the non-NEWAH communities are simple while all the latrines in the NEWAH communities are improved. Being only very few latrines in the non-NEWAH communities; all are being used which are mostly built by the better off households where there are larger number of latrines are in the NEWAH villages are used and kept clean in satisfactory level use.

6. Domestic hygiene in the communities

In all surveyed households more than 50% of houses were found clean with very few households having child faeces thrown in the courtyard (see Figure 3). Very few households have garbage pits and a satisfactory level of kitchen gardens.

7. Willing to pay (WTP)

The data below on household willingness to pay are based on informal, general open-ended questions without reference to any specific service to be provided, the payment vehicle, or budget constraint. The figure below shows that the WTP for the new water system is only 1.3% where WTP for maintenance of water system is less than one percent (see Figure 4). The WTP for sanitation is 4.75%. These values can be used for the design of the water supply and sanitation projects.

8. Days lost due to water-borne diseases

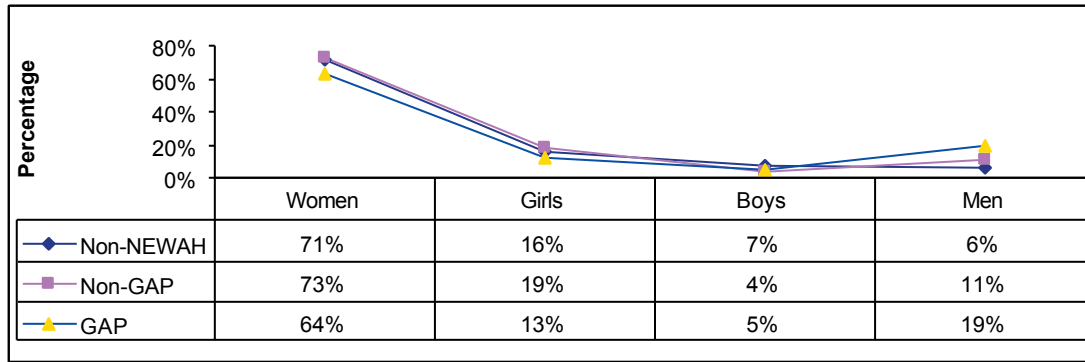


Figure 1. Percentage share of household members in the task of collecting water in surveyed households

Source: NEWAH, 2003b and 2004

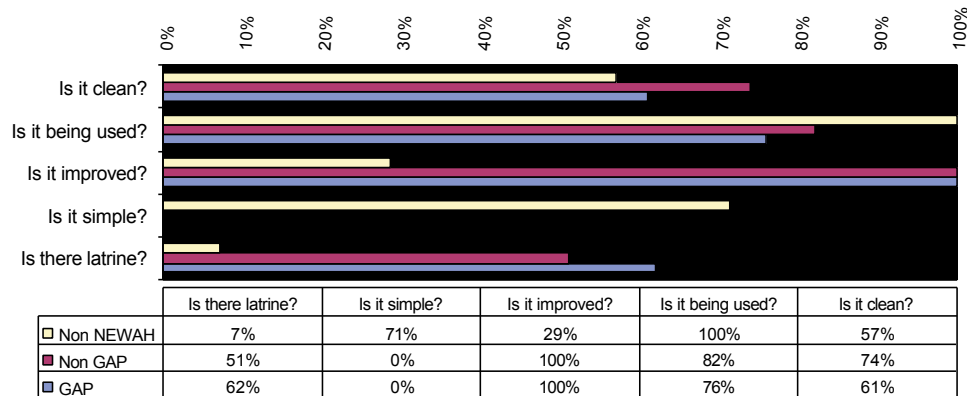


Figure 2. Existing sanitation system in communities

Source: NEWAH, 2003b and 2004

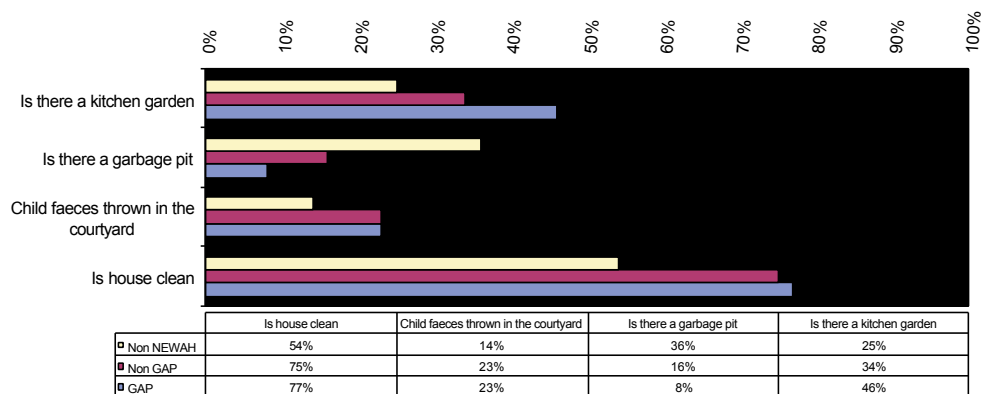


Figure 3. Household hygiene and sanitation

Source: NEWAH, 2003b and 2004

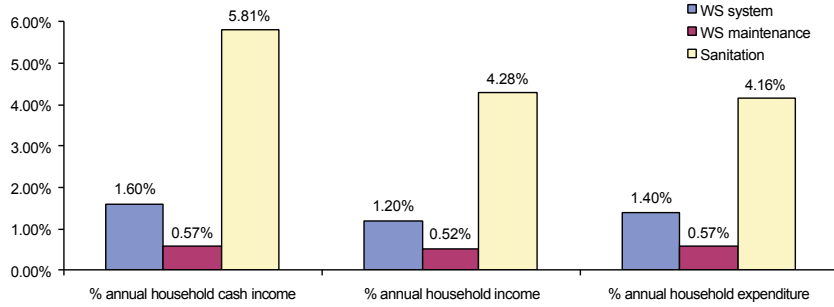


Figure 4. Willingness to pay for services from the annual income (Non NEWAH communities)

Source: NEWAH, 2003b

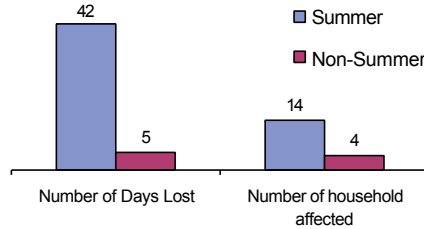


Figure 4. Average number of days lost and number of households affected due to illness (Non NEWAH communities)

Source: NEWAH, 2003b

In the non-NEWAH communities, several households reported losing days of work due to water-related illness, even if they could not name the disease, and could only describe the symptoms (vomiting, diarrhoea, dysentery, etc). In the summer months, the largest number of days lost due to such illness was 78 days, 66 days, 37 days in three of the five villages surveyed, which also have the largest number of households affected. The situation in non-summer months is similarly worse in these three communities, except that the average number of days lost are lower than in summer.

Lessons Learnt

The NPA has been a useful methodology for NEWAH to assess the sustainability of projects linked to demand responsiveness, gender and poverty. It was felt that the tools are appropriate for use in the community because they elicited a real and clear picture of the situation in the community and the projects. Community people also felt that the methodology was a good opportunity to voice their opinion and they appreciated the fact that the NPA encourages particularly women and the poorest to participate equally in the assess-

ment of their water and sanitation system, unlike standard assessments.

However, the survey teams suggested some changes to improve the methodology for future use. Follow-up is needed after the NPA with regular project activities so as to address problems identified by the community immediately. Standard indicators for the well being ranking should be developed instead of leaving it up to the communities as was done, since results cannot be compared subsequently. Many of the respondents had difficulties in quantifying and remembering the amounts of water collected especially during the previous season. Therefore, the household water collection survey needs to be simplified. The results from the methods used in the health and hygiene survey showed some contradictory trends which admittedly reduces the potential of drawing meaningful conclusions. However, if the methods are further improved to get more reliable responses they have the potential of confirming results from participatory exercises with the focus group. The time spent on community data inventory could be reduced by using existing information from an up-to-date regional database and focusing during the NPA only on unserved households.

Lastly, ensure that there is sufficient time to carry out the survey and do the assessment at a period (e.g. during the winter season) when communities and project staff have fewer competing demands on their time.

Further Steps

There are two aspects to further developing the NPA. Within NEWAH the NPA can be used during the planning, monitoring and evaluation stage of its community water, health and sanitation projects. Based on the lessons learned from the 27 communities surveyed using the NPA, NEWAH is revising its base line survey formats by integrating the community data inventory, well-being ranking and social mapping so that time required for the survey can be reduced. During project implementation, the training assessment (number of people trained by gender, caste, socio-economic group) and the history of participation can be integrated into regular project M&E. Similarly, the database will be improved to address security issues and wide range analysis. NEWAH will integrate the NPA to enable monitoring and evaluation of randomly sampled projects throughout the year.

Outside of NEWAH there are three products which can be provided within the water and sanitation sector: the Gender and Poverty Approach; the NEWAH Participatory Assessment; and a comprehensive M & E system. The NPA has given NEWAH a context-specific assessment methodology to measure whether women, the poor and marginalized groups are able to participate and receive benefits more effectively in development projects. NEWAH has found a way to address the many 'soft' issues that make projects sustainable and community men and women empowered and engendered. NEWAH's experience with the NPA has made the GAP approach more effective on the ground and will contribute to NEWAH's commitment to achieving its gender and poverty aims.

References

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Note/s

1. Nepal Water for Health (NEWAH) is a non-government, non-political and non-profit organisation dedicated to helping poor people obtain access to safe drinking water, hygiene education and basic sanitation facilities, irrespective of gender, caste, ethnicity or class.
2. The MPA was developed by the Water and Sanitation Program (WSP), Washington, and International Research Centre for Water and Sanitation (IRC), the Netherlands.

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