Case studies

1.1 Introduction

These case studies have been collected as part of a project to bring issues of social exclusion in the practical development of infrastructure in low-income countries into the core of project planning and design. They have been used to influence and illustrate the guidelines that have been produced as part of the research.

The case studies are being set out here to provide a resource for engineers and the trainers of engineers. They can either be used as a supplement to the training notes produced under the project or used separately to provide illustrations of the overlap between gender issues and the development of infrastructure.

One of the problems in collating the case studies has been the lack of *engineering* issues. There are many case studies of the importance in considering the needs of men and women in the development of infrastructure, but these have come from gender studies rather than mainstream civil engineering. This leads to the impression that gender issues lie outside of the core of project development and design, forming a specialist area requiring specific expertise. In contrast, many engineering examples do not bring out social issues explicitly, so there is a gap between "gender" knowledge and "engineering" knowledge that these case studies and associated books and booklets aim to bridge.

1.2 The studies

The case studies have been kept short, to make them accessible and useful as part of larger initiatives. They have been edited slightly to bring out the engineering issues, rather than other aspects, such as politics or rights based actions. A comment is provided to expand on some the lessons that can be drawn from the case study.

The studies are grouped according to sectors:

- water resources;
- water supply
- sanitation
- solid waste
- transport
- irrigation
- construction
- management and organization
- emergencies
- hygiene activities

Within each section, the case studies are grouped according to the project cycle (planning, feasibility, design, construction, operation and maintenance, evaluation).

1.3 Other project outputs

- For a short introduction on infrastructure and its impact on people, see *Building with the Community (WEDC 2002)*
- For guidelines on how on engineers can include gender issues in their work see *Infrastructure for All (WEDC 2002).*
- To train engineers and technicians to meet the needs of men and women see *Developing Engineers and Technicians* (WEDC 2002)
- Website: http://www.lboro.ac.uk/wedc/projects/msgender/index.htm

1.4 Referencing

The case studies have been provided by a wide ranging group of people over several years. Some are personal observations or have been extracted form published or unpublished reports. Attempts have been made to identify the originator of these extracts, but this has not always been possible. If you know the original source of a case study, please contact Brian Reed (details below), in order that credit can be given.

1.5 New Case studies

If you have examples of engineering issues that have a gender or social exclusion aspects, that you think would be useful additions to these case studies, please contact Brian Reed (details below).

1.6 Acknowledgements

The guidelines where produced by a project team consisting of Sue Coates, Marie Fry, Sarah Parry-Jones and Brian Reed, lead by Ian Smout. The team wishes to thank the following people for their assistance in preparing this publication.

The project was advised by an international review group, consisting of:

- Peter Sinclair
- Ben Fawcett
- John Collett
- Alison Barrett
- Dr Morag Bell
- Lizette Burgers
- Brendan A Doyle
- Louiza Duncker
- Renu Gera
- Martin Gillham
- Sarah House
- Archana Patkar
- Rupert Talbot
- Ilse Wilson

Special mention is made of Sarah House's contribution in laying the foundations for this project. Thanks must also go to the students and staff members of WEDC and Loughborough University who contributed material and comments for the project, especially: Paul Deverill, Margaret Ince, Cyrus Njiru, Rebecca Scott, Brian Skinner, and Mike Smith

The research and development was assisted by the following partner organisations;

- Mvula Trust
- CSIR
- UNICEF (India and Nigeria)
- WaterAid (Zambia)
- Médicins sans Frontièrs

The funding for the project was provided by the UK Department for International Development, as part of their knowledge and research programme. This is one of the outputs from project R7129.

This document is an output from a project funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID.

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HYGIENE ACTIVITIES

Case study 1

Responding to community initiatives

1.1 Background

A pilot project field-testing a trial "Rural Water Supply Fund" in Nepal defined a detailed process for working in response to community initiative.

1.2 Action

Communities were represented by support organizations, mostly NGOs, which submitted proposals on the basis of transparent criteria. Agreements were awarded to pre-qualified agencies to complete pre-feasibility, which determines whether communities are likely prospects to meet technical, social, need, economic and willingness-to-contribute criteria.

The schemes that were likely to succeed were funded for a six-month "development phase", which included participatory planning, non-formal education, Hygiene and Sanitation Education, and optional construction of self help latrines. Community preferences were clearly revealed by the end of this phase. Communities made capital contributions and collected at least one year's maintenance in advance for the water supply. If all criteria were met they submitted a proposal for implementation and post-implementation phases, and were provided funds to complete schemes, establish revolving funds for proved latrine construction, and undertake extended hygiene and sanitation education. Provisions were also made for helping women to access credit and advice for undertaking productive activities. Instead of a blueprint, any organization meeting criteria is eligible to apply and awards are given to the best proposals on a periodic basis. The response to the approach by NGOs and communities has been initially very strong, and results quite cost-effective.

Source: Nepal Synopsis; JAKPAS project, 1995, Jacob Pfohl. UNICEF Mainstreaming Manual.

1.3 Comments

- Feasibility stages of projects can be iterative, with several cycles before the scheme is implemented
- The community can be involved in the development of a project, but need to be given the skills to understand the issues and make decisions. These need to be given early in the project to empower the poor.

Case study 2

Assessing impacts of projects by gender.

2.1 Background

In a study of the water supply and sanitation needs of several towns in Ethiopia, gender segregated data was collected as part of a feasibility study for potential water and sanitation improvements.

2.2 Action

In this case gender segregated data showed that men and women have similar levels of knowledge about diarrhoeal disease control but slightly more women had awareness of oral rehydration salts. Boys and girls under the age of 15 years were much less likely to be aware of this information.

2.3 Comment

Data collected as part of a feasibility study that is disaggregated by gender and age can help to target project resources effectively.

Case study 3

What are ideas about hygiene based on?

3.1 Background

Two studies illustrate the necessity to involve men in hygiene programmes as well as women. Levels of waterborne disease will diminish if only half the population follow hygiene rules.

3.2 Action

Local research in the Maswa District of Tanzania has revealed a very interesting fact. If women alone attend the course, they return to their homes with new ideas and methods only to meet opposition and resistance from their traditionally minded husbands. So husbands are encouraged to attend the five-day course, or at least come occasionally during the day to see what their wives are learning. One pamphlet on Benefits of Clinics has been prepared especially for fathers to read.

Source:Healey,1975: quoted in Gender in Water Resources IRC 33 E 1998.

Similar experiences are reported in Bolivia, where some husbands were reluctant to allow their wives to take part in hygiene education. They saw this as a waste of time or an interference with their wives' duties at home. The presentation of health information to men was undertaken to increase their understanding and approval of health activities and encourage to some degree their direct involvement in community health.

Source: Karp et all 1990 quoted in Gender in Water Resources IRC 33 E 1998 page 122).

3.3 Comments

Concentrating one only one sector of the population can alienate other sectors and reduce the effectiveness of a project. *Gender* is about men *and* women.

Notice the difference in time between the case study in Tanzania (1975) and the one for Bolivia (1990)

Case study 4

Hygiene education for women?

4.1 Background

Women 'participated' in a participatory designed Healthy Home Survey, where homes where evaluated as being clean or dirty based on indicators identified by the women.

4.2 Action

Women having clean homes were acknowledged publicly. It was of course not thought of that clean homes were also the responsibility of men and that for many women the barriers to keeping their homes 'clean' is beyond their time availability in terms of survival priorities.

4.3 Comments

- The survey reinforced attitudes that is was a woman’s responsibility to keep a house clean, rather than a shared task with all the household.
- This action did not meet the practical (especially economic) needs of the women (or men) to keep their houses clean.

Case study 5

Using a wide variety of media

5.1 Background

In the combat for better child survival a national programme was established to undertake public health education on a massive scale.

5.2 Action

The programmes use a combination of mass media and personal contacts and group discussion to link a wide outreach with effective change. In Ecuador, mothers were stimulated to listen to the broadcasts in groups, using a booklet and follow the session up with discussions. Each of the 36 broadcasts consisted of a brief introduction, a soap opera, summary messages, group exercises and a possible community action. Local health promoters facilitated the sessions. Mothers who took part in all sessions got a diploma, a door sticker and a set of sachets with oral re-hydration mix

Source: Seidel, 1993 quoted in Gender in Water Resources IRC 33 E 1998

5.3 Comments

In order to reach a target group, the communication routes must meet their needs.

Case study 6

Communication for change

6.1 Background

In Honduras, a programme focused on measurable change of four hygiene practices:

- a hygienic and covered latrine
- payment to maintain the community water supply;
- covered drinking water storage vessels and
- a ladle to draw water from the vessel.

6.2 Action

Radio broadcasts consisted of 60 fifteen-minute episodes of a comedy series featuring community men and women analysing water, sanitation and hygiene conditions. In addition, 120 one-minute radio spots were broadcast twenty times a day, six days a week. Group discussion meetings, organised by the local health promoters and featuring flip charts and photo-novels followed up the broadcasts. They were also linked to a hygiene promotion programme in schools. Each teacher had a guide and a set of training modules and each student a comic book. Topics of broadcasts, school programmes and group meetings were closely related to be mutually reinforcing. A survey in Honduras showed that at the end of the course 75 percent of the target groups practised two or more of the four promoted practices

Source: Vigano, (1985) quoted in Gender in Water Resources IRC 33E 1998 page 122

6.3 Comments

A variety of media can be used to reinforce a message.

Case study 7

Targeting men

7.1 Background

A variety of studies have identified how important it is to involve men in health and hygiene issues – it is not just a woman's task.

7.2 Action

Both field workers and women who participate in the hygiene promotion work of the Women's Voluntary Service in Madras, India acknowledge how essential it is that also their husbands are participating in the programme (Sorensen, 1992).

In Baluchistan, husbands get separate health education, as wives cannot directly influence the behaviour of their husbands. Hygiene education is used in particular to motivate the men to build and use latrines, as they have no privacy problems themselves and are shy to visit latrines under the eyes of the women (WSC, undated).

Research into hygiene risks in Bangladesh revealed as priorities for action mothers washing hands before preparing food, safer defecation habits of young children and safer disposal of garbage and faeces. The latter would reduce the risk that young children place waste products in their mouths. From these findings, action programmes with mothers, children and fathers were developed. Subsequently, the rates of diarrhoea in children under six were 26 percent lower than in the control area (Clemens and Stanton,1987).

Source: Gender in water Resources Tech paper 33E IRC)

7.3 Comments

- Husband's approval can be important
- Men can be shy too
- Fathers need to be included in the training of children.

Case study 8
Health records

8.1 Background
Health records are useful if they are broken down into age groups.

8.2 Action
In Mozambique monthly reports asked for information by age groups 0-4, 5- 14, and 15 and over. However, these were collected from the clinic registers which recorded visits by children under 15 and people aged 15 and over. It is likely that many of the reports were completed inaccurately.

Save the Children Draft Tool kit 1993

8.3 Comment
When requesting data that has been separated by sex or age, it is important to examine the process of collecting the data, to ensure no bias is included in the results.

Case study 9
Same disease, different causes

9.1 Background

In a hand pump well project in eastern Tanzania, gender and age-specific analysis of reported data for urinary schistosomiasis in the project area showed that this water-related disease was most common amongst schoolboys and women and girls between 10 and 40 years of age.

9.2 Action

The incidence among boys was related to the boy's swimming habits, while for women and girls the disease was associated with the local practice of washing clothes while standing in schistosomiasis-infested water. This finding had implications both for the hygiene education programme and for the wells project, which had banned on washing clothes at the hand pumps and so forced women to continue their use of open water.

9.3 Comment

The case study illustrates the possibility of identifying different reasons for the same problem, and for unwitting intervention from a wells project that increased the incidence of the disease.