Watsan interventions impact on rural livelihoods

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INVOlVING BENEFICIARIES of water supply, sanitation improvement and hygiene promotion at grassroots level in assessing the impact of those interventions on their daily lives reveals a spectrum of changes in the peoples’ total livelihood not anticipated in the initially designed objectives. This has been demonstrated by an impact assessment study done between June 1999 and March 2000 in four villages of Dodoma Region of Tanzania. The villages were Tandala, Berege, Songambele and Chaludewa as control. The study was participatory in nature. It used different methodologies and tools to collect the information and it was purposely designed to collect qualitative rather than quantitative data. The triangulation of information helped to improve the validity and the reliability of data collected.

The communities generated their own impact indicators that revealed how water supply and sanitation provision had affected and or changed their daily lives.

The study focused primarily on the individual, household and on the community level of analysis. The study subjects were stratified according to gender, social groupings and occupations, all were then asked to recall past and present situations (i.e before and after the interventions) and then they were facilitated by the study team to analyse and interpret the types and extent of change(s). The study team to analyse and interpret the types and extent of change(s).

A control village was used in the absence of adequate baseline information in the interventions villages.

Findings

Livelihood

Livelihood - is defined here to mean ‘the capabilities, assets (including both material and social resources) and activities required for a means of living’.

The impact assessment study in Tanzania recognized the following common impacts on the livelihood of the communities across the study villages:

- Increase in assets ownership (sustenance of livelihood) as revealed through self evaluation, transect walk, key informant, and focus group discussion (FGD)
- Growth in livelihood activities (existing and new) obtained by history line, transect walk and FGD
- Changes in household purchasing power as revealed through self evaluation, FGD and key informant

Other Findings

Social and Psychological

- Enhanced psychological security - it was reported that there is a reduction of tension in both men and women but felt mostly by women. In the past they had to wake up at 3 am, walk 25 to 30 km to and fro in search of water, and they were harassed/sexually assaulted on the way to and from, and at, water sources. People are more secure and have more time to concentrate on other development activities.

Hygiene & Sanitation

- Reduced incidences of water washed and water borne diseases - more health, more energy, time to spent on development activities and, to some extent, saved money for other family needs.

School Attendance

- Significant contribution to improved attendance, punctuality and performance particularly in the reference villages - reduced levels of illiteracy for self as well as community advancement.

Environmental

- Promoting greenery, and therefore, pleasant to look at scenery both in schools and village surroundings – increased commercial nursery activities for income earning and raised awareness on benefits of environmental conservation

Challenges

Integrated Planning

- How do we adequately integrate the relevant sectors while planning for WATSAN projects: i.e. water, health, land, agriculture, livestock, education, community development, etc?
### Table 1. Impact of assessment study in Dodoma Region, Tanzania

<table>
<thead>
<tr>
<th>Before Intervention</th>
<th>After Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>still strongly true situation in the control village</strong></td>
<td><strong>this strongly applies in the project intervention villages</strong></td>
</tr>
<tr>
<td>Long hours were used looking for water, at approximately walking distance of up to 30 km return journey in the dry season or 3-6 hours waiting at water sources daily</td>
<td>Access to reliable water supply at reasonable distances has helped people to save their valuable time, energy and money, e.g. Women have the time to: - prepare food for their families and children. - participate in meetings and leisure activities like hair plaiting, traditional dancing, etc.</td>
</tr>
<tr>
<td>Often children would go with one meal a day especially in the dry season.</td>
<td>Family savings have improved, such that it is now possible to think of buying other important items like a piece of soap, sugar, kerosene, school uniforms, analgesic drugs</td>
</tr>
<tr>
<td>It cost up to US$0.25 / Tshs200 to buy a 20l bucket of water, or a 90-120kg bag of maize for an exchange to a 200l drum (it now costs between US$0.001-0.002 / Tshs10-20 per 20l bucket in project villages)</td>
<td>Participation in village development projects e.g. construction of schools, health centres, roads, etc. has improved. People have the energy - particularly women and the youth - to engage in income generating activities like brewing local beer, small businesses, gardening, etc.</td>
</tr>
<tr>
<td>Finding water for domestic use was too demanding a task, which left people completely exhausted, with little energy for use on other activities.</td>
<td>Increased number of newly constructed houses.</td>
</tr>
<tr>
<td>Buying water at exorbitant prices over-stretched the limited family incomes.</td>
<td>Improved houses due to use of bricks and corrugated iron sheets.</td>
</tr>
<tr>
<td>Poor quality and small number of houses –situation vividly seen at the control.</td>
<td></td>
</tr>
<tr>
<td>Fall in population due to out-migration to water sources – population has remained almost constant for almost 4-5 years, no in-migration to follow water</td>
<td>Rise in population due to in-migration as water supply improved - population has doubled within 5-8 years, e.g. at Songambele village has tripled</td>
</tr>
<tr>
<td>Water vendors were making excessive profits – still true for the few vendors in the control village during peak dry season</td>
<td>Hostility/enmity has been created between individual water vendors and the operator of a water source as the former have experienced a reduced income – at Bere scene village</td>
</tr>
</tbody>
</table>

The reported changes particularly those pertinent to time availability, distance shortening and physical energy saving were mostly felt by women of all ages, while those on money saving were felt mostly by both younger and older men.

### Institutionalising the Learning Process
- How do we further the execution of participatory impact assessments in our project areas and elsewhere?
- How do we replicate this study approach to other interested stakeholders? Do we have, time, willingness & preparedness, capacity, existing and new knowledge & skills, facilities for documentation, resources (available and new/needed ones), ability, etc.?

### Gender & Vulnerability
- How should we further develop both men and women’s ability to analyze their project interventions in a way that highlights inequality and maximises benefits for the most vulnerable, in a way that will improve the poor people’s chances of benefiting from the interventions?

### Community Management
- How should we document the different ways in which communities have responded to changing conditions and understand the implications of private management (variety of management options)?

### Designing for and Managing Demand
- How to anticipate changing water consumption patterns due to increased economic activities and well being?

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Concluding remarks

- Methods of community self-monitoring to assess project impacts on livelihood should be built at the start of the project to minimize community disruption caused by excessive facilitation of data collection by outsider researchers.
- If beneficiaries are given the opportunity to express themselves, they can generate impacts and impact indicators beyond the professional syndrome normally used in project evaluation. So, this Participatory Impact Assessment (PIA) has demonstrated yet another challenge to technicians and other professionals - that of being learners and innovative in planning for similar interventions, including their assessments in the future.

References

Participatory Impact Assessment of Older WATSAN Projects, Supported by WaterAid in Dodoma Region, Tanzania, Susan Maganga and Herbert Kashililah, October 2000.

SUSAN MAGANGA, Information Advocacy Manager, WaterAid, Tanzania.
ENG. HERBERT J. KASHILILAH, Programme Manager, WaterAid Tabora, Tanzania.