Gender mainstreaming in integrated rural water supply and sanitation project in Mzimba, Malawi
O. K. K. Mwamsamali and A. W. Mayo

ABSTRACT

Gender mainstreaming in the water sector in Malawi was analyzed using the Mzimba Integrated Rural Water Supply and Sanitation (IRWSS) project as a case in point. Information required for the study was obtained through interviews, administering a set of questionnaires and data collecting from existing documents. The results show that women in decision-making positions at head office of the Ministry responsible for water affairs only constitute about 11.1%. Assessment of the budget allocations has revealed that previously no budgetary allocations were made for gender issues, and that since the 2006/07 fiscal year about US$14,286 was allocated for gender mainstreaming. Women’s involvement in local governance institutions and project activities in Mzimba is generally high. Most local water committees have 60% women and 40% men, whereas participation in project activities is highly rated at 97.2%. To improve gender balance, the Ministry responsible for water has to work with stakeholders in the education sector. Besides, great disparities still exist between men’s and women’s participation in water projects at a local level (97.2% for women) and a person’s socioeconomic position greatly affects their inclusion in the local governance structures. Addressing these issues would, therefore, result in better gender integration in the water sector.

Key words | gender mainstreaming, Malawi, rural water supply, sanitation

INTRODUCTION

The Dublin Statement, endorsed by over 100 countries, recognizes that women play a central part in the provision, management, and safeguarding of water resources (United Nations 1992a). It also recognizes the pivotal role of women as providers and users of water and guardians of the living environment. It further argues for this reality to be reflected in institutional arrangements for the development and management of water resources through positive policies, which are framed to address specific needs of women and to equip and empower them to participate at all levels in water resources programs, including decision-making and implementation, in ways defined by them.

Principle 20 of the Rio Declaration on Environment and Development (1992) recognizes the importance of women in environment and development and therefore their full participation is essential to achieve sustainable development. Agenda 21 on the other hand, calls for the development of public participatory techniques and their implementation in decision-making, particularly the enhancement of women in water resource planning and management (United Nations 1992b). The Johannesburg Plan of implementation and resolution declaring the International Decade for Action, ‘Water for life’ (2005–2015), calls for participation and involvement of women in water development projects (UN Water 2006).

Today, many agree that women’s involvement in water resources management projects makes systems more efficient, user-focused, financially viable and environmentally sustainable (UN 2006; IISS 2013). This calls for gender mainstreaming, which in accordance with the United Nations Economic and Social Council, is the process of assessing the implications for women and men of any planned...
action, including legislation, policies or programs, in all areas and at all levels (UN ECOSOC 1997). Empowerment ensures that different gender groups are able to actively participate in the design, implementation and development with maximum access and control to related resources and benefits at all phases of development; thereby enhancing ownership, equity, efficiency and sustainable outcomes (GoM 2001; UN Water 2006).

The participation of women in decision making and implementation of water and sanitation projects is important because women in Africa are the main fetchers of water and cleaners of sanitation facilities (Mwamsamali 2007; Kwangware 2013; Mayo & Nkiwane 2013). Some reports indicate that women are spending as much as eight times more hours than men doing household chores, including collecting water (NSO 2004). In accordance with Rydhagen (2002), the decision on implementation of water and sanitation projects has significant implications for the women who use such technologies. For example, if the design of sanitary facility chosen is the pour flush toilet, the daily labor burden for women will increase because of the need for more water (O’Reilly 2006). Therefore, the adoption of a sanitary facility is influenced by the design of latrines, labor burden for women and gender access to affordable water resources (O’Reilly 2012).

In accordance with UNICEF (2006), Malawi has witnessed considerable investment in water supply systems amounting to US$73 million over the first five years of the 2000s, although sustainability remains a problem. On the other hand, use of improved sanitation facilities is under-funded and therefore its coverage is as low as 50% and 53% in 2011 in urban and rural areas, respectively (UNICEF & WHO 2013). However, these figures are challenged by Malawi population data sheets of 2012, which indicated that households with improved toilet facilities represent only 19 and 6% in urban and rural areas, respectively (PRB 2012). In most cases, women are not effectively involved in rural water supply and sanitation projects, further leading to their marginalization in planning and implementation of these projects (UN Water 2006). Furthermore, it is argued that the success in achieving the Millennium Development Goals in water and sanitation globally will require both gender mainstreaming and programs targeted specifically at women in water management. Hence, this study is conceived to establish the status quo of gender mainstreaming in the water supply and sanitation sub-sector in Malawi using the Mzimba Integrated Rural Water Supply and Sanitation (IRWSS) project as a case study.

METHODOLOGY

Description of Mzimba project area

The study area, Mzimba district, is largely rural with 83.4% of the population residing in rural areas. It is one of the six districts in northern Malawi and is divided into 10 traditional authorities (Figure 1). It covers an area of about 10,382 km² with a population of 727,931 in 2008 growing at the rate of 3.3% per annum, which is above the national average of 2.8% (NSO 2008). Mzimba district was selected as a highest priority district out of the six districts in the Northern Region based on the 1995 Malawi Social Indicators Survey. The parameters used were water supply and sanitation coverage; health-related parameters; and food security/child nutrition parameters. The Mzimba IRWSS project was funded by the Government of Malawi (GoM) and the African Development Fund (ADF 2001). The GoM’s contribution towards the project costs is about US $1.9 million and about US$12.08 million is from the ADF. Activities undertaken in this project comprised drilling new boreholes, rehabilitation of old boreholes, construction of project offices and houses, training of water communities, sanitation facilities and training committees in catchment protection.

Data collection and processing

The information required for the study was obtained by administering a set of questionnaires, in addition to seeking some data from existing documents and through interviews. By use of a questionnaire, 120 local people from 20 water points within the district who are beneficiaries of the project were interviewed including members of Water Point Committees (WPC). WPC members were targeted because they are the ones who provide an interface between the beneficiary communities and the government’s frontline field extension staff. The questionnaire survey’s main intention
was to obtain qualitative data from the field in order to establish aspects of gender participation and mainstreaming in the local level institutions like the WPCs. The questionnaire addressed widespread issues including household characteristics, household type and occupation of respondents. Other information sought included household source of water, responsibilities for collection of water and household sanitation practices. Questionnaires also covered participation of the community in project planning, implementation and operation and maintenance as well as the organizational and governance aspects of the local WPCs. Each of these parts was intended to address characteristics of the beneficiary communities as they relate to gender mainstreaming and water resources governance at the local level.

Interviews were conducted at three levels of the research process. First, ministry of officials from the department of water supply and sanitation were interviewed to provide gender-based information relating to IRWSS, community management of rural water supply and sanitation schemes as well as policies and regulations governing water supply and sanitation issues in relation to the Mzimba IRWSS project. Information regarding the planning, design, implementation as well as staffing and gendered budgets was also sought. Second, key officials based at the Project Implementation Unit (PIU) in Mzimba were interviewed to obtain some pertinent information regarding gender staffing patterns at the PIU, gender balance and institutional mechanisms that have been put in place at the project implementation level. Last, Community Based Management (CBM) officials were interviewed to provide data on how the project is being implemented.

Both qualitative and quantitative data was collected through questionnaires administered in the field. Quantitative data from the questionnaire was analyzed using MS Excel and SPSS software, which were used for generating tables, descriptive statistics and plots of distributions and trends. Data from each part of the questionnaire was separately analyzed. Before any statistical data analysis was done, the raw data was screened in order to identify any missing data, outliers and any other gaps by means of cross tabulation and frequencies using SPSS software. Direct observations were also carried out to determine cleanliness of the water point premises, conditions of the various water point parts such as aprons, drainage and soakaway trenches, washing platform and access paths.
RESULTS AND DISCUSSION

Towards gender mainstreaming in the water sector

The Ministry responsible for water has initiated and fast-tracked training of its staff on gender integration; and a separate budgetary vote has been provided for gender mainstreaming activities within the annual ministerial budget from the 2006/07 fiscal year. As regards to training, about 31 staff members of the Ministry for Water Affairs including 12 women have been gender-trained in 2007. The main focus of training was the promotion of gender equality in water and sanitation activities. Others are gender training needs assessment; surveys on the factors that inhibit gender equality in the water and sanitation sector; reviews of the composition of WPC, existing manuals and documentation in order to make them gender responsive; and activities related to regular support, monitoring and evaluation.

Funding by donor agencies such as CIDA has supplemented the Ministry’s financial resources to ensure that the complexion of the committees at the grassroots level is not only in terms of numbers vis-à-vis men–women ratio, but most importantly that the women’s voice is heard in the decision-making processes. However, little progress has been made to improve the female proportion in technical/management and decision-making positions in the Ministry as only a paltry 11.1% of technical and managerial positions in the water resources department is female and none in the water supply and sanitation department (Table 1). The absence of women in technical positions is largely due to absence of qualified female candidates for highly technical positions. This is evidenced by graduate data from University of Malawi (UNIMA) that shows that of the 14,219 graduates in various disciplines and distinctions from 1967 to 1995 only about 20% are female (Table 2). A recent report indicates that that overall female students’ enrollment at the University has improved from 20% between 1967 and 1995 to 30% in 2003 and 35% in 2009 (UNIMA 2010). In accordance with Table 3, nursing is the only one out of 15 Faculties of UNIMA that have more female (78.2%) than male (21.8%) students. The enrollment of female students in Engineering is lowest (17.5%) followed by built environment (23.3%), but slightly better in humanities (37.9%), agriculture (37.2%), media studies (36.2%) and education (34.5%).

A report by the Civil Society Coalition for Quality Basic Education (2010) indicated that while the ratio for girls and boys for primary school level is almost 1:1, the enrollment of girls at secondary school level is only 44.2%, but decreased further to 31% at tertiary level. Consequently only 3% of the girls join tertiary education. The EMIS (2009) report

| Table 1 | Technical managers and decision-makers by department, status and gender at Ministry headquarters

<table>
<thead>
<tr>
<th>Department</th>
<th>Director</th>
<th>Deputy director</th>
<th>PS/chefs/ senior managers</th>
<th>PO to P7/junior managers</th>
<th>Total managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Resources</td>
<td>M F M F</td>
<td>F M F</td>
<td>F M F</td>
<td>F M F</td>
<td>M F M F</td>
</tr>
<tr>
<td>WSS (plus CBM)</td>
<td>1 0 1 1</td>
<td>3 0</td>
<td>11 1</td>
<td>18</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Note: M – Male; F – Female.

| Table 2 | Distribution of graduates by level of qualification and gender (1967–1995)

<table>
<thead>
<tr>
<th>Degree/diploma</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>Female proportion</th>
<th>Grand total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>476</td>
<td>204</td>
<td>680</td>
<td>70</td>
<td>16.92</td>
</tr>
<tr>
<td>Diploma</td>
<td>1,288</td>
<td>5,779</td>
<td>7,067</td>
<td>18.23</td>
<td>45.79</td>
</tr>
<tr>
<td>First Degree</td>
<td>956</td>
<td>5,083</td>
<td>6,039</td>
<td>15.83</td>
<td>33.98</td>
</tr>
<tr>
<td>First Degree (Hons.)</td>
<td>55</td>
<td>252</td>
<td>307</td>
<td>17.92</td>
<td>1.96</td>
</tr>
<tr>
<td>Master’s</td>
<td>38</td>
<td>83</td>
<td>121</td>
<td>31.41</td>
<td>1.35</td>
</tr>
<tr>
<td>PhD</td>
<td>–</td>
<td>5</td>
<td>5</td>
<td>–</td>
<td>0</td>
</tr>
<tr>
<td>Grand total</td>
<td>2,813</td>
<td>11,406</td>
<td>14,219</td>
<td>19.78</td>
<td>100</td>
</tr>
</tbody>
</table>

indicated that drop-out rates for girls sharply increased in standards 7 and 8, reaching rates nearly six times higher than that of the boys. The sharp increase of girls’ drop-out rate in higher primary school classes may be gender related. Potential factors that have been reported in Malawi and elsewhere may include, but are not limited to, poor menstrual sanitation facilities for girls in schools, early marriages and child pregnancies (Williams 2010; Guya et al. 2013). Others factors may include cultural reasons, quality of school, unsupportive parents/guardians, poverty, low performance in schools and increased domestic chores (de Hoop 2011; Williams 2012). Consequently, the proportion of primary school completion rate in Malawi is only 45% for girls and 53% for boys. The Malawi Government has responded by constructing 10 girls’ hostels in 2009/10 for high drop-out schools and an additional MK450 million has been allocated in the 2010–11 budget for seven more girls’ hostels. Other efforts include increasing equitable access to high quality secondary school education in the form of bursaries to girls and disadvantaged children, although this was not gender disaggregated (CSCQBE 2010), and re-admission of 240 student mothers into secondary schools (MoFEP 2011).

It is also worth noting that with an exception of certificate awards, the proportion of male graduates far exceeds that of females in all disciplines except nursing, which is considered a traditional profession by girls (Table 3). Malawi Institute of Management reported that in 1995, most of those who graduated with a nursing award are females (93%) followed by management (27%), education (26%), and arts (23%), but only 7 and 13% of graduates are female in science and engineering, respectively. This disparity in male/female qualifications is reflected at the level of employment and industry and is one of the reasons given for the low proportion of women decision-makers and managers at technical levels in the ministry responsible for water affairs. It therefore means that the presence of a gender and other enabling policies and legislation is a necessary, but not a sufficient condition to ensure that women and men are equitably represented at decision-making and management levels in the water sector. In an attempt to reverse this trend, the Government of Malawi has introduced a project on Strengthening Mathematics and Science in Secondary Education (SMASSE) in order to make science and mathematics attractive to girls and improve their performance in these subjects. Other positive discriminatory policies include ensuring that at least 30% of students it sponsors in the Technical Colleges are females and lowering pass marks for females during entry exams (CSCQBE 2010). Perhaps the first female President of Malawi may act as a role model for other women to excel in their professions. However, this ought to be accompanied with a desire to strengthen National Gender Machinery as suggested by Mbilizi (2013).

### Budget and gender equality

The analysis of the water sector budget revealed that funds are not explicitly allocated to women-specific targeted expenditures nor does it have any resources to promote affirmative action programs. This conclusion is arrived at after examination of the ministry’s budget allocations prior to the 2006/2007 budget. However, the ministry has started to allocate financial resources for gender mainstreaming purposes since 2006/07 in which a gender budget allocation of
MWK2,000,000 (about US$14,286) in fiscal year 2006/07 was provided, which is expected to be an ongoing process. Gender has become a budget item in the national budget in order to mainstream gender in the water sector. The rest of the allocations went to mainstream expenditures. The same applies to the funds disbursed to the PIU, and therefore expenditure depends on office bearers. Unfortunately, financial support for gender equality initiatives in Malawi is largely dependent on donor support (OECD 2011) because budget spending share on water resources development has gradually decreased from 3.37% as a percentage of the total budget in 2008/09 to a mere 1.54% in 2010/11 (CSCQBE 2010). Such donor funds include a US$5.6 million grant from the Bill & Melinda Gates Foundation to support Water for People’s Sanitation as a Business program (2010–2014) in Malawi, which is used to support pit-emptying businesses in Lilongwe and Blantyre (WASH 2013).

Gender mainstreaming in Mzimba IRWSS project

The PIU at Mzimba is manned by a male project manager besides a project accountant and a retinue of other four project staff. PIU had only one female member of staff recruited as office secretary to the project manager, but she had resigned at the time of this study. A similar scenario was observed at the project head office in Lilongwe where, of the seven members of staff, only the project administration officer and an assistant accountant are females, which are non-technical positions. It is evident that Malawi has made little progress on empowering women to take up leadership positions in non-traditional areas although it has subscribed to most international forums supporting gender mainstreaming such as the Beijing Platform of Action (1995) and the SADC Declaration on Gender and Development (1997).

Gender and water point committee (WPC) composition

WPC, which are composed of 10 members, are responsible for the day-to-day management of the communal water points and provide an interface between government and the local community at large. The proportion of females on committees in Luvi and Kaulankhutu is only 70 and 80% of the committee membership, respectively. Similarly, Gonamoso Zimba and Mapanjira committees have 40 and 60% of their membership as male and female, respectively. This trend in committee membership is evident in all other committees indicating that the quotas recommended by the ministry responsible for water affairs are followed. The ministry responsible for water affairs has a deliberate CBM policy that stipulates the composition of water committees to be 40% male and 60% female and that at least one of the major committee positions of chairperson, treasurer or secretary must be occupied by a woman. Table 4 shows that WPCs strictly followed what the policy dictates with regard to the apportionment of the main positions in the committees.

Except Gonamoso Zimba, which has a male chairperson and male treasurer, all the other committees (Luvi, Mapanjira and Kaulankhutu) have women as their chairpersons and treasurers and men as secretaries. As such when women occupy these positions they are effectively empowered to drive the decision-making processes of these local governance structures, which is arguably a development in the right direction in terms of gender integration. The general membership of Kaulankhutu is 80% women while that of Luvi, Gonamoso Zimba and Mapanjira is 70, 60 and 60%, respectively. In addition, 75% of chairpersons and treasurers are women, but 75% of the secretaries are men.

It was revealed that those who are elected to the decision-making positions in WPCs were perceived to have relatively high social and economic status by local standards (Table 5). The analysis of 20 local committees suggests that economic status and belonging to a religious group matters most for the post of treasurer as about 71.4% of treasurers are either commercial farmers or religious leaders. As for the position of chairperson and secretary, the proportion of female members in committee

Table 4 | Major committee positions and their holders by gender

<table>
<thead>
<tr>
<th>Committee name</th>
<th>Committee positions and their holders by gender</th>
<th>Proportion of female members in committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luviri</td>
<td>Chairperson Female, Treasurer Female, Secretary Male</td>
<td>2 of 3</td>
</tr>
<tr>
<td>Gonamoso Zimba</td>
<td>Chairperson Male, Treasurer Female, Secretary Male</td>
<td>1 of 3</td>
</tr>
<tr>
<td>Mapanjira</td>
<td>Chairperson Female, Treasurer Female, Secretary Male</td>
<td>2 of 3</td>
</tr>
<tr>
<td>Kaulankhutu</td>
<td>Chairperson Female, Treasurer Female, Secretary Male</td>
<td>2 of 3</td>
</tr>
</tbody>
</table>
ability to read and write seems to be the major determinant for one to hold these offices. A previous study by Kadewere (2005) in Chingale, Malawi found that the socioeconomic status of an individual had a bearing on the position to which that individual was elected in a local tap committee. Similarly, Cleaver (1998) reported that in Zimbabwe commanding respect and resources gives a candidate a better chance of being elected to leadership positions. It is evident that a community is not a homogeneous entity, but contains competing interest groups and where resources are scarce there is competition for supplies and those at the lowest end of the power spectrum – often the poor – will go without (UNDP 2005). Power relations therefore place poor people in a disadvantaged position, which calls for deliberate efforts to ensure that the poor people who generally have greater constraints on time and labor/material resources than other people are mainstreamed and incorporated into these local institutions.

Water sources, collection and household sanitation

Mzimba residents depend on boreholes (82.5%) and hand dug wells (17.5%) for their household water supplies. The percentage of households that draw water from boreholes for drinking purposes increased by 2.5 to 85% while those households that use water from hand-dug wells for drinking purposes declined to 15%, suggesting that borehole water is seen as a better source for drinking water.

About 95% of households reported that it is the responsibility of women to fetch water for use by the household, which suggests that women are the principal ‘fetchers’ of water. Only 5% indicated that both women and men participate in household water collection chores. It is noteworthy that both girls and boys were also mentioned as sharing the responsibility for water collection besides women. Similar results were reported in Uganda where Adenum (2009) observed that women in rural households are often providers of household water although their needs are not given priority on choices of technology and handling of water resources.

Results of this work show that 95% of the respondents of Mzimba use conventional pit latrines as their sanitation facility, but the remaining 5% defecate in the nearby bushes. According to this survey, out of the 95% respondents who use conventional pit latrines, only 65.8% have good toilets and 23.7 and 10.5% have fair and poor sanitation facilities, respectively. A good toilet is one that has privacy, is safe to use and hygienically isolates human faeces from human contact, whereas a poor toilet is one that has poor privacy, is difficult to clean and has questionable safety for users. These results are in line with that of NSO (2004) who reported that the access to improved sanitation facilities in Mzimba has increased to 56.9% of the total rural population from a mere 5.6% in 1998. In their Joint Monitoring Programme, UNICEF & WHO (2013) have reported that 53% of Malawians have access to improved sanitation. It is worth mentioning that sanitation is a major problem throughout the developing world with an estimated 2.5 billion people worldwide not served by improved sanitation, the majority of these (90%) located in the rural areas (UNICEF & WHO 2013).

As regards gender responsibility for household sanitation, the results revealed that 66% of the respondents said women carry out all the household sanitation responsibilities such as cleaning of sanitation facilities such as pit latrines, whereas 8% indicated that household sanitation is the responsibility of men. The remaining 26% reported that men can only help in household sanitation chores if

<table>
<thead>
<tr>
<th>Socioeconomic variable</th>
<th>Variable indicator</th>
<th>Chairperson</th>
<th>Treasurer</th>
<th>Secretary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy level</td>
<td>Able to read and write</td>
<td>100</td>
<td>85.7</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Unable to read and write</td>
<td>0</td>
<td>14.3</td>
<td>0</td>
</tr>
<tr>
<td>Economic status</td>
<td>Commercial farmer</td>
<td>50</td>
<td>71.4</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Subsistence farmer</td>
<td>50</td>
<td>14.3</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Self-employed</td>
<td>0</td>
<td>14.3</td>
<td>0</td>
</tr>
<tr>
<td>Societal position</td>
<td>Religious leader</td>
<td>75</td>
<td>71.4</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>School committee member</td>
<td>25</td>
<td>14.3</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td>No position in society</td>
<td>0</td>
<td>14.3</td>
<td>0</td>
</tr>
</tbody>
</table>
the women are unwell or absent. About 94.4% of households have their sanitation facilities cleaned at least once daily, with some 23.7% of households who clean their pit latrines twice daily, but 2.6% of the households do not clean the sanitation facilities at all. It can be concluded that in Mzimba District, it is largely the responsibility of women to carry out all household sanitation chores (92%) and fetch water for household use (95%).

**Gender participation in projects and division of labor**

About 92% of 120 respondents indicated that both men and women are involved in project planning and implementation, but the rest did not participate because they were not aware of the project (5%) or for other reasons (3%). Physical observations on the ground seem to verify these findings as both men and women were found to participate in various project activities. However, 69.2% of respondents rated men’s participation in projects and meetings as average, but the remaining 30.8% consider men’s participation was high. On the other hand, women’s participation was highly rated by 97.2% of the respondents and only a handful of respondents (2.5%) saw women’s participation in meetings and projects as average. The degree of participation of men in water and sanitation projects was lower than that of women partly because of lack of understanding amongst men as regards WSS needs (40%). Water problems greatly affect women and thus women ‘understand’ WSS problems better than men (48%) as a result of women being responsible for water supply and sanitation facilities of the household. Some other reasons reported include lack of interest amongst men when it comes to development work (17.5%), distribution of labor between men and women (16.7%) and men’s attitude towards drinking alcohol (15.3%).

It was noted that women were not only attending the meetings, but were practically contributing ideas. This is contrary to experiences gained in Maharashtra and Gujarat, India where, despite reaching the recommended quotas, women were unaware of the membership and roles of the water users association and were not attending meetings (Kulkarni 2011). In rural Nigeria, Adeyeye (2011) observed that although Water and Sanitation committees had equal numbers of men and women, none of the women spoke during the meetings. However, the participation of women indicates that they are not only involved in water supply projects in Mzimba District, but they are influencing the focus of the projects, which could actively enhance sustainability of the projects. Results of various research studies indicate that communities that are responsible for planning and implementation of the water supply project are more responsive to supporting the projects financially through paying of water bills (Mayo & Nkiwane 2013). Rydhagen (2002) observed that women’s involvement in the planning and implementation of water supply projects improves the chances of sustainable management of such projects.

It is worth mentioning that major water and sanitation activities involved both men and women, although the activity of each group may be different (Table 6). Respondents participated in various activities including siting of facilities (90%), provision of bricks and sand (97.5%), cash contributions (95%), borehole maintenance (100%) as well as clearing of tap site and access roads (95%). Respondents reported that works related to the repairing of concrete aprons (37.5%) and digging of soakaway pits and trenches (22.5%) were mostly done by men. Cleaning of soakaways also seems to be mostly women’s work indicated by close to half of the respondents (47.5%).

With regards to whether the beneficiary communities were consulted during project planning and design phases, the results show that there was maximum consultation with the beneficiary communities when locating the services or facilities (100%), in determining the service quality (97.5%) and also the type of services that are needed.

<table>
<thead>
<tr>
<th>Project activities</th>
<th>Response by percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
</tr>
<tr>
<td>Siting of facilities</td>
<td>0</td>
</tr>
<tr>
<td>Provision of sand and bricks</td>
<td>0</td>
</tr>
<tr>
<td>Cash contributions</td>
<td>0</td>
</tr>
<tr>
<td>Repair of concrete aprons</td>
<td>37.5</td>
</tr>
<tr>
<td>Digging of soakaway pits and trenches</td>
<td>22.5</td>
</tr>
<tr>
<td>Borehole maintenance</td>
<td>0</td>
</tr>
<tr>
<td>Cleaning of soakaways</td>
<td>0</td>
</tr>
<tr>
<td>Clearing of tap site and access road</td>
<td>0</td>
</tr>
</tbody>
</table>
It is worth mentioning that 3 of the 120 respondents (2.5%) that were not consulted on the quality and type of service were women. It was further noted that consultation with the beneficiary communities during designing of the facilities was only 41.0%; this was not surprising as design requires technical expertise, which local communities do not possess.

**Operation and maintenance (O&M)**

The results of the survey indicated that 79.5% of boreholes had no breakdowns at all probably because most boreholes are new. However, 79.5% of the respondents indicated that O&M training was not offered to the WPC, which is one of the factors for potential failures of the systems in future. As regards who should benefit from the O&M training, most respondents (71.9%) prefer that only the WPC members should be trained, but others (12.5%) want the entire communities to be trained while 15.6% were non-committal. It is worth reporting that only 25% of the communities were trained in gender mainstreaming issues, although 80% have indicated interest in such training if offered. Such enthusiasm is necessary for gender mainstreaming and other project activities to succeed.

**General institutional organization and management**

The survey discovered that all office bearers including the committee chairpersons are nominated by the water users and democratically elected through voting. Once the committee has been constituted, it is required to serve for a maximum of 1–2 years in accordance with 90% of the respondents. However, 10% of the respondents said they don’t change committee leadership unless there are major problems. Decisions in these committees are arrived at through a majority vote. Almost all committees indicated that they regularly hold committee meetings to discuss WSS issues. In terms of how regularly, 57% of respondents indicated that committee meetings are held fortnightly whereas 15, 25 and 3% indicated they have them weekly, twice-a-month and monthly, respectively. Apart from the internal committee meetings, 75% of the respondents reported that there are also meetings held with the communities. The means of information dissemination is largely through committee members themselves (97%), announcement at previous meetings (86.7%) and letters or posters (72.2%). Traditional leadership structure (34.5%) is rarely used for transmission of information to the communities.

**Potential constraints in gender mainstreaming**

The survey has shown that the potential factors that may thwart efforts for gender mainstreaming include lack of incentives in the water sector (95%), lack of gender training (77.5%), lack of support from supervisors (70%), ignorance of gender issues (65%) and strong cultural beliefs vis-à-vis women’s position in society (55.3%). When asked how these problems can be ameliorated, 89% of the respondents argued for training and civic education to the communities so that awareness of these issues is created. Respondents also argued for training of WPC in gender integration as only 25% indicated that they had undergone some sort of gender training before compared with 75% who have had no prior training in gender.

**CONCLUSIONS**

From the results of this study, the following conclusions are made:

1. Staff composition in the Ministry for Water Affairs is skewed in favor of men in technical (management) and decision-making positions as only 11.1% of managers are women at the ministry headquarters. A similar situation was observed in the PIU and the Project Head Office. Unfortunately, gender responsive budgets have not sufficiently addressed the needs of women. The prospect of closing gender gaps in decision-making positions is not very promising owing to fewer female than male students graduating from secondary schools and universities.

2. There is great disparity between men and women as regards the degree of participation in water sector project planning, implementation and project meetings in Mzimba. For instance 97.2% of respondents rated women’s participation in water project activities and meetings as high while that of men was rated as just average by 69.2% of respondents. Women are still the major collectors of water and are also responsible for household sanitation.
3. The composition of WPC in the Mzimba IRWSS project strives to strike a gender balance between women and men. It was evidenced that women were not only attending the meetings, but were practically contributing ideas, which is important for sustainability of water and sanitation projects. The socio-economic status of individual community members in Mzimba IRWSS greatly determines whether or not she or he is elected to hold a post in the local WPC.

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