

## INVOLVEMENT OF STAKEHOLDERS IN THE WATER QUALITY MONITORING AND SURVEILLANCE SYSTEM: THE CASE OF MZINGWANE CATCHMENT

Lerato Nare<sup>1,2</sup>, David Love<sup>3,4,5\*</sup> and Zvikomborero Hoko<sup>1</sup>

<sup>1</sup> *Department of Civil Engineering, University of Zimbabwe, PO Box MP167, Mt. Pleasant, Harare, Zimbabwe*

<sup>2</sup> *Provincial Medical Department (Matabeleland South), Ministry of Health and Child Welfare, Box A5225 Bulawayo, Zimbabwe*

<sup>3</sup> *WaterNet, PO Box MP600, Mt. Pleasant, Harare, Zimbabwe*

<sup>4</sup> *ICRISAT Bulawayo, Matopos Research Station, PO Box 776 Bulawayo, Zimbabwe*

<sup>5</sup> *Department of Geology, University of Zimbabwe, PO Box MP167, Mt. Pleasant, Harare, Zimbabwe*

The world has witnessed a paradigm shift in strategies for managing water resources in recent years. There has been a shift from supply based strategies to demand management. The focus is now on managing as much as possible the available resource. Stakeholder participation is viewed as critical in the current water sector reforms taking place in the region including Zimbabwe. Zimbabwean policies and legislation encourage stakeholder participation.

A study was undertaken to determine whether or not there was stakeholder participation in water quality monitoring and surveillance at the operational level, and also to assess indigenous knowledge and practices in water quality monitoring. Communities, extension workers, farmers and NGOs and relevant sector government ministries and departments were interviewed and a number of workshops held.

Results indicate that there is very limited stakeholder participation although there are adequate structures and organisations to support this. For the Zimbabwe National Water Authority, stakeholders are the paying permit holders, who they give feedback after analysis of samples. The Ministry of Health and Child Welfare generally only releases information to rural communities when it is deemed necessary for their welfare. There are no guidelines on how a dissatisfied member of the public can raise a complaint - although some stakeholders carry such complaints to Catchment Council meetings.

It was found out that there are many useful indigenous knowledge and practices used by the communities of the area, such knowledge is based on smell, taste, colour and odour perceptions. Residents are generally more concerned about the physical parameters than the bacteriological quality of water. They are aware of what causes water pollution and the effects of pollution on human health, crops, animals and aquatic ecology. They have ways of preventing pollution and interventions to take when a source of water is polluted, such as boiling for water for human consumption, laundry and bathing, or abandoning a water source in extreme cases.

Stakeholder participation and ownership of resources needs to be encouraged through participatory planning, and integration between the three government departments (water, environment and health). Local knowledge systems could be integrated into the formal water quality monitoring systems, in order to complement the conventional monitoring networks.

*Keywords:* catchment management, water quality monitoring, participatory management, stakeholder participation

---

\* Corresponding author: Tel.: +263-4-336725/333248; fax.: +263-4-336740/303557; Email.: davidlove@science.uz.ac.zw, davidrock@yahoo.com, zidhiva@excite.com (D. Love)