Priority water research questions for South Africa developed through participatory processes

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ABSTRACT

This paper describes a collaborative process of identifying and prioritising current and future water research questions from a wide range of water specialists within South Africa. Over 1 600 questions were collected, reduced in number and prioritised by specialists working in water research and practice. A total of 59 questions were finally proposed as an outcome of the study and are categorised under the themes of change, data, ecosystems, governance, innovation and resources. The questions range in scale, challenge and urgency, and are also aligned with prevailing paradigms in water research. The majority of the questions dealt with relatively short- to medium-term research requirements and most focused on immediate issues such as water supply, service delivery and technical solutions. Formulations of long-term research questions were sparse, partly because some of the principles and methods used in this study were difficult to apply in the South African context, and also because researchers are influenced by addressing what are believed to be the more immediate, short-term water-related challenges in South Africa. This is the first initiative of its kind to produce a comprehensive and inclusive list of research priorities for water in South Africa.

Keywords: research, questions, collaboration, prioritisation, South Africa

INTRODUCTION

What we ought to do

The first significant effort to co-ordinate water research in South Africa began with the promulgation of the Water Research Act (Act No. 34 of 1971) (Republic of South Africa, 1971), arguably one of the most important initiatives to shape the development of water research in the country. Provisions in this Act also resulted in the establishment of the Water Research Commission (WRC). Since 1971, the WRC has used public funds to support water research projects, which is evident in the plethora of water research activities and publications. While the national research output of the WRC accounts for a substantial proportion of publications, other institutes such as government departments, national science councils, universities, private consultancies, civic groups and non-governmental organisations also contribute to water research.

The National Water Act (No. 36 of 1998) (Republic of South Africa, 1998) is regarded as an important departure from the idea of riparian ownership of water (Tewari, 2009). Few countries have had the opportunity to radically transform water resource legislation and research in order to address fundamental socio-economic needs, and enable equity and social justice. Many of the principles in the Act represent a mix of modernist and postmodernist paradigms, and Funke (2007, p. 66) states that 'in many ways this shift in water policy mimics the shift in thinking in certain progressive research circles: from one which focuses on the physical laws of nature and the principles that

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