

Progress and Pitfalls of River Health Research Investment Assessed



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An assessment of the impact of the Water Research Commission's (WRC's) research investment made in support of the national River Health Programme (RHP) reveals the progress made in certain areas while recommending ways to improve others.

The WRC is committed to ensuring that the publicly-funded research under its management provides both research excellence and public benefit. It was with this in mind that the project to assess the WRC's involvement in the RHP was commissioned.

The RHP has a relatively long history (more than a decade) of receiving research investment and providing benefits to public and private organisations in the context of improving river monitoring and management practices. It has developed into a flagship for the water resources monitoring programmes operated by the Department of Water Affairs & Forestry. However, its success is to a large degree as a result of the active involvement of, and strong ownership by, a diverse site of national and sub-national organisations.

The recent assessment, undertaken by Monash University and the CSIR, looked at two main aspects. Research excellence was assessed as a function of two main factors, namely the quality and

pattern of engagement in the scientific peer-review process and the degree to which relevant research was taken up in the wider body of science.

The other aspect assessed was that of research relevance. Eleven indicators were examined here, including the flexibility of management, diversity of participation, international collaboration, continuity over time, knowledge capturing and sharing, improved river health and increased capacity and awareness, among others.

MAIN FINDINGS

An overall outcome is a sense that the WRC and its co-custodians have done extremely well in facilitating the transition from developing technical methods to establishing operational routines. The organisation has played an overwhelmingly positive role in enabling the kind and continuity of research that led to the remarkable adoption by implementation agencies, capacity and awareness creation among diverse audiences, and an impact on water and research activities in

a much broader sphere than that directly related to the RHP. Particularly noteworthy is the level of knowledge capturing and social sharing that took place.

Authors Dr Dirk Roux, Liesl Hill and Wilma Strydom write in the final report: "We believe that this success is to a large degree as a result of the community-of-practice style of participation that prevailed among RHP practitioners. The WRC's flexible management style has also played a significant role in enabling this community formation and maintenance."

However, the assessment does reveal a number of areas where performance could be better. First among these is the overall impact within the body of science. This aspect, according to the authors, has clearly been neglected. Related to this is the low degree of international collaboration that has been achieved, with the impact on policy and actual improvement of river health further disappointing features.

It is explained that the poor performance for research excellence is probably as a

result of the strong emphasis that was placed on understanding and catering for stakeholder needs and to facilitate practical implementation of the RHP. While such a focus is admirable, it should be matched with resources for and efforts to ensure scientific credibility.

Interestingly, the assessment indicated that RHP-related research in general advanced the specified impacts areas of the WRC, notwithstanding the poor performance in the areas of research excellence and international collaboration. A further interesting phenomenon is that the RHP's objectives have largely been advanced, yet there is no evidence that the health of rivers have improved nor has the substantial body of river health information had much influence on water policy.

The likely explanation is that the RHP has largely remained true to its main purpose of being a monitoring programme that generates and disseminates accurate and objective information. This is a sound position for a monitoring programme, but without effective extension into the management and policy domains, there is no guarantee that the information stemming from the programme will be used to the benefit of society.

RECOMMENDATIONS

The value of an impact assessment approach such as this one is to facilitate periodic reflection and to reveal areas in need of more focused research attention. This provides guidance for the strategic allocation of available research funding.

Ideally, an impact assessment of this nature should be undertaken in close collaboration with all key role-players to maximise the potential for social learning and the likelihood of an appropriate response to the findings. While an inclusive assessment process was beyond the scope of this study, the authors recommend that the findings of this assessment be presented to and deliberated within at least the RHP's custodian organisations.

Several recommendations are made related to future research in support of the RHP:

- ◆ **International benchmarking:** During the early years of the RHP, much value was derived from international benchmarking. Much has happened in the field of environmental monitoring and reporting, and it is recommended that a comprehensive benchmarking exercise be undertaken to see where the RHP stands against related international practices.
- ◆ **Embrace the scientific publication process:** It is recommended that peer-reviewed publications and presentation of key topics at international conferences be encouraged and supported.
- ◆ **Extension into management and policy domains:** The influence of the RHP on river health and river management policy should have been much greater and this requires further exploration and investigation.

- ◆ **Long-term research, development and implementation initiatives:** Related to the preceding point, the operational influence and effectiveness of the RHP could improve significantly following careful design of and support for a number of long-term research, development and implementation projects. Such projects should have as an ultimate goal the improvement of river health; team a research partner with implementation agencies; focus on a specific catchment or water management areas; include both developmental and implementation objectives; and run for a period of seven years or longer.

To obtain a copy of the report, *Assessing the Impact of Research Funded by the Water Research Commission in Support of the River Health Programme (Report No: TT 360/08)*, contact Publications at Tel: (012) 330-0340; Fax: (012) 331-2565; or E-mail: orders@wrc.org.za 

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The following State-of-river reports are available as part of the River Health Programme:

- ◆ Rivers of the Gouritz Water Management Area 2007
- ◆ The Mokolo River 2006
- ◆ Achievements of the RHP 1994-2004
- ◆ Olifants/Doring and Sandveld Rivers 2006
- ◆ Greater Cape Town's Rivers 2005
- ◆ Crocodile(West) Marico WMA 2005
- ◆ Buffalo River System 2004
- ◆ Berg River System 2004
- ◆ Free State Region 2003
- ◆ Diep, Hout Bay, Lourens and Palmiet River Systems 2003
- ◆ Hartenbos and Klein Brak Rivers 2003
- ◆ uMngeni River 2002
- ◆ Letaba and Luvuvhu Rivers 2001
- ◆ Crocodile Sabie-Sand and Olifants Rivers 2001



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