



Findings

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Three Drivers of Effective Implementation: The Story of the South African River Health Program

"... nothing is more powerful than a great idea. And nothing is more deadly than its poor execution." (Taylor, 1994)

No matter how sound the underlying principles or technical design, the intended merit of any policy or program can only be realized once and if it is effectively implemented. Implementation can be described as putting into practice, executing, achieving, or accomplishing. Because of the universal difficulty and even elusiveness experienced with putting new ideas into practice, the implementation challenge continues to fascinate scholars and frustrate practitioners.

Political transformation in South Africa has resulted in a comprehensive revision of policies and the introduction of a multitude of new programs over the past ten years. Quite rightly, the emphasis is now shifting from developing new policy and legislation to delivering on the ground. With effective implementation considered a national imperative, it is opportune to extract lessons from existing implementation successes and perhaps also from those initiatives that are less successful.

The South African River Health Program (RHP) is an environmental monitoring and reporting program that has been successful in the sense that it progressed

from being a good technical design to becoming an operational practice. The RHP was initiated through an identified information need and seed-funding by the country's Department of Water Affairs and Forestry. Over a period of nine years (1994 to 2003), the RHP has grown from a mere idea into a national operation. This is especially significant considering that adoption and implementation of the RHP is largely voluntary and that program implementation is taking place in an environment characterized by limited financial resources, a multitude of competing social and economic priorities and general scarcity of appropriately skilled people.

The RHP was designed to measure, assess and report on the ecological state of rivers in South Africa. It is a screening-level monitoring program that operates around a low sampling frequency and a relatively low resolution of sites scattered semi-randomly across river basins. Biological (fish, aquatic invertebrates, and riparian vegetation) and habitat (in-stream and riparian) indices are used to assess the condition or

health of river reaches. The program's assessment approach is based on the concept of biological integrity, whereby ecological modification is expressed relative to a near-natural benchmark.

A diversity of implementation models has emerged among adopters of the RHP distributed across the country – some seemingly successful and others less so. Reflecting on the successes and failures of the RHP provides an opportunity to learn about the elements that are necessary for new ideas to mature into sustainable programs. Although many factors played a role in stimulating adoption, growth and dispersal of the RHP, three elements in particular appear to be critical drivers in developing and maintaining the capacity required for implementation of this monitoring program. These are:

- “Contagious leaders”
- Flexible governance through shared ownership
- Creative packaging and dissemination of key messages

Contagious leaders

In his book *The Tipping Point*, Malcolm Gladwell writes that ideas, products, messages and behaviors spread just like viruses. If a virus finds appropriate carriers and connects with sufficient recipients, it becomes an epidemic. If we would like to see our programs spread like epidemics, the most important investment that we can make is to find and support the natural carriers of our “virus”. Gladwell calls these people the “contagious

leaders”.

In the context of the RHP, a critical number of contagious leaders was probably the most significant factor contributing to the success of the initiative. These contagious leaders are characterized by:

- Deep philosophical and theoretical understanding of their messages; not only in terms of “what” needs to be done, but also “why” it is important.
- Shaping an enduring vision and core purpose that capture people's imagination and mobilize resources.
- Radiating enthusiasm, commitment and ownership regarding the vision and core purpose.
- An ability to balance vision with action; while it is important to provide direction at the strategic level, it is equally important to maintain focus and give effect to that vision through advances at the operational level.
- Instigating strategic (and face-to-face) conversations with stakeholders to develop a shared understanding of the objectives and challenges.
- Regular reflection to allow adaptation of strategies and methods to ensure relevance in a changing world.
- An inclusive style of leadership through which they empower and create opportunities for others to become equal partners in the initiative.

Contagious leaders are by no means abundant in any community and the RHP was exceptionally fortunate for having attracted, either through serendipity or solicitation, both a critical number and a diverse distribution of these leaders. Collectively,

they had influence in government, the academia, and conservation agencies. Their direct communication and visible support were key to motivating key groupings to get involved and allocate priority time and resources to the RHP.

Flexible governance through shared ownership

When human and financial resources are at a premium, *networking* (reaching out and getting in touch with others) and *collaboration* (to work in combination with others) become key success factors in bridging capability/capacity gaps and achieving demanding goals. The institutional plan for the RHP involves coordination of design, development and standardization (concepts, methods, processes) at a national level, with operational and implementation activities to largely take place at the provincial and watershed levels.

The most critical constraint that had to be overcome was to capacitate the RHP at the operational levels. The provincial scale was selected for deploying the program, primarily due to the presence of agencies with relevant expertise and equipment that operate at these levels. During a consultative planning meeting held in 1996, Provincial Champions were elected to act as hubs for implementation activities in each of South Africa's nine provinces. Since no single organization in any province could claim to have all the technical expertise required for effective implementation of the RHP, it was up to the Champions

to establish inter-organizational implementation teams.

Provinces that participate successfully in the RHP usually evolve through three distinct maturation phases, starting with individual enthusiasm, progressing to informal networking, and ending with organizational endorsement.

· **Individual enthusiasm:** In most instances, Provincial Champions started off armed only with enthusiasm for the task ahead. The primary reason why they have agreed to champion their provincial initiative is because they care about rivers and believe that the RHP would help them to generate the information that would contribute to sound river management. Their lobbying for team members was based on the need for certain basic skills as well as for having the representation of key organizations in the province.

· **Informal networking:** The true value of networking and collaboration probably lies in the formation of informal arrangements and relationships. In this regard, the RHP was particularly successful. Individuals would join the informal network of RHP practitioners based on their perception of the value that the initiative holds for them and their organizations. True to their operational environment, “joining” is associated with participation in river surveys rather than registration or attendance of meetings. The ability to collectively accomplish something that cannot be accomplished separately is commonly cited as

a reason for joining the provincial network.

· **Organizational endorsement:** Either before or after joining the provincial network, individual members would request approval from their organizations to get involved in RHP activities. Their case is strengthened if they can show examples of what the program produces and demonstrate how this relates to their organizational mandates. Organizations would then consider whether and to what degree they would endorse the program. Endorsement may be in the form of incorporating RHP objectives as part of the job description of a staff member(s) and/or their organizational business plan. The predominantly bottom-up (emergent governance) approach described above resulted in a rich diversity of organization and agency combinations that constituted the various provincial implementation teams. This “let’s-see-what-emerges” approach was complemented by a top-down (stewarding or custodial government) approach where, for example, the national Department of Water Affairs and Forestry would extend an official invitation to heads of key provincial agencies to become involved.

The largely voluntary basis on which adoption has taken place to date will likely shift to mandated accountabilities when and where Catchment Management Agencies (CMAs) come into being. These agencies are likely to have the delegated mandates – from national government – and statutory powers to coordinate monitoring and reporting on the

ecological state of rivers. The establishment of CMAs in South Africa is foreseen to take place systematically over the next two decades.

Creative packaging and dissemination of key messages

The RHP leadership was not content with only generating and making available river health information. They set themselves the goal of changing the behavior of the recipients of the information. To achieve this goal, they had to rethink the formats used for packaging information as well as the strategies used for disseminating information. Three dominant themes emerged from efforts to improve the effectiveness and efficiency of communicating river health messages.

· **Reduce the complexity of scientific messages:** In an era of pervasive information overload, there is a major demand for products that are credible yet simple. The RHP has made significant advances in simplifying the “front end” for communicating river health while retaining the rigor of the biological assessment process in the background. As an example, a river health classification scheme has been developed where the categories are simply referred to as natural, good, fair and poor. When communicating to decision-makers, a map showing the river of interest with color-coded icons that indicate the relative health of the river at monitoring stations would typically receive more attention

than scientific explanations, technical diagrams and graphs.

- **Develop a flagship communication product:** A significant contributor to the popularity and visibility of the RHP can be ascribed to the development of the State-of-Rivers (SoR) reporting concept. These reports or posters comprise semi-standardized formats for the packaging of river health information. The SoR products always portray a distinct RHP brand yet reflect dynamic development over time. Commonly, the same results are packaged in various formats and distributed via multiple media. As an example, the recent RHP exercise on the river of the Free State Province produced on-line and hard copy versions of a glossy report, posters in the three main languages of the province, as well as a poster with no text for people who cannot read – all of which essentially convey the same message.
- **Uncover and utilize tacit knowledge:** In compiling SoR products, a decision was made to use the knowledge that resides with scientists, water resource managers, farmers and members from local communities to complement formally collected data and derived information. The reporting teams learned many lessons regarding interpreting the highly personal tacit knowledge that was shared among the stakeholder groups and for capturing this in explicit form — that is, the conversion from mind to

report. This step requires multiple iterations of draft versions between editors and knowledge contributors to ensure that context-specific knowledge has been captured correctly. The outcome is a report that provides much more context than could be derived from purely using collected and interpreted data. As examples, observations regarding the recovery of a hippopotamus population subsequent to a severe drought that occurred a decade prior to the river survey in question; the occurrence of rare bat species and fish owls in a particular riparian forest; and the exceptional abundance of crocodiles in a particular river reach are all bits of information that were not found in a database but that surfaced during knowledge-sharing sessions. It was felt that such tacit knowledge has the potential to significantly increase reader interest and the contextual orientation provided by SoR reports.

Even a flagship product can have the desired impact only if it reaches its intended audience. It was found that distribution of reports by mail often did not result in the desired impact. Personalization of report dissemination is the ideal, where at least key recipients receive a hand-delivered report with a brief contextual explanation or presentation.

Conclusion

The RHP has had many victories to celebrate. However, the chal-

lenge of sustainable implementation and relevance is not over. It is suggested that the three drivers focused on in this article should receive continued nurturing in order to leverage limited resources. Much of the program's success is due to the contributions of individuals. The loss of a provincial champion or a national task leader may render the program vulnerable in a particular area and succession of particularly the contagious leaders needs to be fostered. Similarly, the program flourished during an era of following a flexible governance approach, where informal institutional arrangements semi-spontaneously “bubbled up” from a distributed network of stakeholders. As the program matures, the effectiveness of its likely future governance model of more formal institutional arrangements and mandated accountabilities remains to be seen. Similarly, the program cannot afford to become complacent about the successes of its SoR initiative, and ongoing development is required to maintain scientific credibility while at the same time cater effectively to ever-evolving stakeholder preferences.

*This article by Dirk J. Roux, CSIR Environmentek, South Africa is based on a more detailed chapter by the author entitled **From Monitoring Design to Operational Program: Facilitating the Transition under Resource-limited Conditions** that was published in: Wiersma, G. B. (Editor). *Environmental Monitoring*. CRC Press, Boca Raton, pp 631-648, 2004. (ISBN: 1-56670-641-6)*